

South Australia's 20-Year State Infrastructure Strategy Discussion Paper

Submissions from Industry Bodies

To: Infrastructure SA

Re: South Australian 20-Year State Infrastructure Strategy

14 November 2023

Introduction

The planning for and development of infrastructure is critical to the viability of the minerals industry. AMEC appreciates the opportunity to provide a submission to Infrastructure SA's consultation to develop its next 20-year State Infrastructure Strategy, to inform the state's infrastructure needs, strategic goals and priorities to 2045, to support the continued growth of the sector.

About AMEC

The Association of Mining and Exploration Companies (AMEC) is a national industry association representing over 560 member companies across Australia, with over 37 member companies with direct project interests in South Australia. Our members are mineral explorers, emerging miners, producers, and a wide range of businesses working in and for the industry. Collectively, AMEC's member companies account for over \$100 billion of the mineral exploration and mining sector's capital value.

Mineral exploration and mining make a critical contribution to Australia's economy, directly employing over 274,000 people. In 2021/22 Industry generated a record high \$413 billion in resources exports, invested \$3.86 billion in exploration expenditure to discover the mines of the future, and collectively paid over \$63 billion in royalties and taxes.

In South Australia in 2021-2022(FY) mineral exploration expenditure was at an 8-year high at \$122.3 million, a 34% increase from the previous year, and \$2.5 billion was spent on capital expenditure. In 2020-21, over \$237 million was generated in royalties from the \$7.1 billion in mineral commodity sales, representing a record high.

Next 20-year State Infrastructure Strategy

General Comments

AMEC welcomed the 2020 release of South Australia's first infrastructure strategy, and recommended alignment with the Commonwealth Infrastructure Australia list, to ensure priority projects could be developed in a timely, effective manner. It is important that access to key infrastructure is provided through a combination of federal and state government funding, with private input where appropriate, to facilitate multi-user, multi-stakeholder access, and maximise value.

We welcome through this new strategy, the effective delivery of infrastructure, and the timely development of South Australian projects. These projects are contingent on substantial investment of a scale that only Government can fully support, in order to deliver the transformation that is envisaged. Acknowledgment of the importance of Government support, should underpin the new strategy.

1. What opportunities should we consider to improve South Australia's economic growth?

Mineral exploration is required to discover mineral deposits, and develop those resources and projects into economically viable mines, in optimal fiscal settings. It is a long-term, high-risk investment, however, provides widespread and ongoing benefits to the communities the projects are located in, and the broader state economy. These benefits include the royalties used to develop public infrastructure such as schools, hospitals and roads, and support public services including frontline emergency services, teachers, and regulators.

The minerals sector across South Australia has untapped potential that is underexplored because other jurisdictions have more competitive investment settings and approvals functions. The length of time for approvals increases the cost and complexity, with diminishing certainty due to high levels of regulatory red tape.

However, the geological endowment across the state is ripe for delivering on both the state and Commonwealth government's agendas for a decarbonised economy.

Host to a range of base, raw and critical minerals, South Australia has the capacity to expand its mineral offerings at all stages of the supply chain. As more projects are developed, investor interest will in-turn increase, to the jurisdiction as a whole. The provision of an efficient, robust approvals and project development function for the mining sector, is equally important for infrastructure development and planning. Efficiency of timeframes and cost provides investor certainty and confidence, in a competitive environment.

Due consideration must be given to the infrastructure requirements of existing and developing mineral proponents and projects across regional South Australia, namely the junior and mid-cap explorers and miners. They are located in remote areas of the state, with growing demand for common-use infrastructure to support ongoing research and development as the up-and-downstream potential of minerals continues attracts government and investor interest.

Viable access to transport hubs must also be a key consideration of infrastructure planners, for the junior end of the minerals sector. A strong Government position can ensure access is cost-effective and transparent. Secure, reliable access to transport and infrastructure including ports, freight, rail, roads, energy sources, and communications infrastructure, can support the ongoing growth of South Australia's minerals sector, to meet global demand.

2. What infrastructure constraints are preventing a more efficient, accessible and productive freight sector?

Affordability and capacity are constraints on access to a more accessible, productive freight sector. With the majority of minerals projects in remote regions, sharing infrastructure and freight modes with other users is important, however, the price and availability of these facilities where they do exist, poses a barrier to development.

As projects progress through the development pipeline, the financials around logistical arrangements become more pressing. Access to viable port, rail, and road options for import and export are vital to developing an optimised path to market, in a manner that considers sustainability and community expectations.

AMEC continues to recommend an overlay of the economic heatmap that is being developed by the Department for Infrastructure and Transport, with infrastructure developments and mineral tenements applied for and granted, updated at regular intervals. This will provide current, more accurate forecasts to inform decision making.

Currently, projects across the state are constrained by limited options. A natural, deep-water port at Cape Hardy for instance, has been EPBC (Commonwealth) approved, and previously received an Australian Government financial commitment, but without a fiscal state commitment, the project's development is contingent on private investment and capital raisings via the ASX, by the project proponent. The development could support cape-size vessels, to increase import and export capacity for multiple sectors, while supporting the growth of the Cape Hardy precinct, its Northern Water project capacity, and as a key enabler for the State's renewables priorities.

With the announcement by Commonwealth Minister Catherine King on 14 November of a refreshed infrastructure policy including expectations on financial contribution allocation from the Commonwealth and each state / territory, timely support from the State is more urgent than ever, to ensure those already committed to, large-scale, transformational infrastructure projects, can proceed.

3. How can we enable a sustainable and affordable water supply into the future?

A realistic, informed, well-consulted on overview of current and emerging projects across the minerals sector and other sectors is needed to ensure there is an understanding of current and future water needs and limitations.

The Northern Water Project could unlock more opportunities for the minerals industry, as well as other water users and project proponents across regional South Australia. Its progression to final investment decision in a timely manner should be finalised.

East-to-west options for affordable natural water sources are required as more mineral proponents compete for scarce supply with other users who will not be directly impacted by the Northern Water Project.

It is important that as further changes and derivations are made to the Murray Darling Water Allocation Plan and water trading rights, transparent access arrangements and access provisions are maintained for mineral explorers and emerging miners.

AMEC recommends these plans are robustly consulted upon, with suitable data to inform decision-making and support capacity building of Government data sets for water, which can be accessed by project proponents seeking to undertake surveys and works of a similar nature or in an affected area.

5. What are the barriers to increased adoption of digital technology to improve productivity?

Typically, junior mineral explorers and miners do not have the cashflow to be early adopters of technological developments. They welcome Government co-funding incentives to encourage uptake of a new technology in its infancy, and risk minimisation wherever possible. The more tested and available a product that is well reviewed across industry, the less of a risk it can pose to companies who have limited disposable expenditure beyond core business.

With a rapidly evolving Commonwealth Government agenda for climate change and the environment, and inevitable amendments to state processes that will require refreshing, the practicality of digital technologies must consider new regulatory and community expectations, and reduce administrative and financial burden wherever possible. User-friendly, sustainable, efficiency-supporting technologies must be cost-effective, whilst demonstrating progress against measurables.

13. How can we think differently about infrastructure investment to support equitable access and a more inclusive society?

Investments require the spending of finances, in order to spur further investments into the minerals sector and other sectors. To make money, the state needs to spend money on more than frontline services. The minerals sector has a proven history of delivering sustained returns to state budgets, and weathering times of financial uncertainty. To be able to do so in South Australia, significant investment into infrastructure relevant to the minerals sector is required.

A more holistic understanding and awareness of the needs and emerging trends of industry, government, and other sectors, should inform planning. This must be subject to regular review at scheduled intervals to inform priority works and shifts in priority, if required. More consistent, concerted communication is required, to ensure industry proponents are kept abreast of plans and this can inform their own planning and capacity to contribute to requests for information, in a meaningful way.

The efficient allocation of budgets, resourcing (including approvals staff), and spending to unlock the long-term benefits and job creation sought under the broader Government agenda can be enabled when infrastructure is viewed as not only an end-product, but also as an enabling / facilitating service.

14. What are the opportunities for infrastructure investment to accelerate attainment of the Closing the Gap targets?

Industry provides direct employment and training opportunities to remote and indigenous communities, and supports indirect opportunities across the nation. These can include capacity building, education, VET-sector training, and transferrable skillsets for workers, as well as connecting with communities and working to embed within the community the project is located within.

As infrastructure is planned for and developed, investment can be attracted to these projects, to support greater provisions of community support as the project scales up.

15. What infrastructure investments will support industries to transition to a global net zero future?

Rail transport options can provide a lower emission alternative than road transport. Accessibility to the national rail network is dependent on infrastructure capability, and Government support. Upgrades to existing networks and capacity are needed to facilitate the transport of bulk items, and increasing users of these networks as demand increases. Resilience and safety must also be key considerations, as multiple users will share the networks.

Processing facilities and multi-user facilities for demonstration of critical mineral downstream capacity will be reliant on large amounts of energy, but will ultimately enable South Australian minerals proponents to deliver the minerals the world needs for a decarbonised future. The ability to

test flowsheets and capabilities domestically, at scale, will be transformational for South Australian mineral explorers and miners.

Access to alternate, stable, and affordable energy and water supplies will be critical to the establishment and use of these facilities and projects as they develop. Solar farms, renewable batteries, desalination plants and other emerging large-scale infrastructure projects will have strong industry demand, and provide a welcome alternative for those proponents located off the grid.

26. What are the funding and financing options government should consider in future, to ensure its infrastructure program remains affordable and sustainable?

The South Australian Government should advocate to the Commonwealth for access to funding that is exclusively allocated via the Northern Australia Infrastructure Facility (NAIF). NAIF, by name, excludes the entire South Australian state, despite the majority of the state being considered regional.

With the mid-2023 release of the Commonwealth Government's Critical Minerals Strategy, an Australia Made Battery Strategy being developed, and a range of Commonwealth plans to position Australia as the world leader in critical minerals, the lack of support from both the Commonwealth and State Governments to the projects and infrastructure required to attract investment required to develop the industry domestically, cannot continue if we are to operate differently.

The South Australian Government must play a more active role in co-financing infrastructure projects with the Commonwealth, and realise the projects outlined in the State's own 20-year infrastructure strategy and at a national level, in order to compete nationally and globally. Low interest loans, tax credits, financing facilities and bonds, are all mechanisms that should be considered.

Final comment

AMEC is eager to see the timely development of infrastructure across South Australia, to facilitate project development across the mineral exploration and mining sector. An efficient transport, processing, manufacturing and port infrastructure system, outlined in this refreshed strategy, can attract investment to industry but requires significant State and Commonwealth support. We welcome continued opportunities to ensure progress against the strategy can be measured and delivered.

For further information please contact:

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ARA SUBMISSION

South Australia's 20-Year State
Infrastructure Strategy:
Discussion Paper

13 November 2023

ABN 64 217 302 489

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The ARA

The Australasian Railway Association (ARA) is the peak body for the rail sector in Australia and New Zealand, and advocates for more than 200 member organisations across the industry.

Our membership covers every aspect of the rail industry, including the:

- passenger and freight operators that keep essential rail services moving;
- track owners, managers, and contractors that deliver a safe and efficient rail infrastructure network; and
- suppliers, manufacturers, and consultants that drive innovation, productivity, and efficiency in the rail industry.

Our members are driven to support vibrant, sustainable and connected communities through greater use of rail across Australia and New Zealand. We bring together industry and government to help achieve this ambition.

Our advocacy is informed by an extensive research program to ensure we offer solutions that are grounded in evidence and focused on delivering tangible value in our daily lives.

We believe the rail industry has a crucial role to play in the region's sustainable development and growth, and know that the industry offers meaningful and rewarding careers for tens of thousands of people in the regions.

Our significant program of work is focused on supporting a strong advocacy agenda, and creating opportunities for the rail industry to network, collaborate and share information, and maximise the benefits we have to offer the wider community.

The ARA thanks the Infrastructure SA for the opportunity to provide this submission.

Any questions regarding this submission should be directed to Simon Bourke, General Manager – Advocacy and New Zealand via [REDACTED]

Consultation Questions

The following section outlines the ARA's responses to several of the questions posed in the Discussion Paper.

Freight and supply networks

Question 2: What infrastructure constraints are preventing a more efficient, accessible, and productive freight sector?

Rail freight in Australia is considerably constrained by the differences between jurisdictional networks. A lack or absence of interoperability across the country is the single most significant drain on productivity for the rail freight sector. It directly contributes to the increased cost of operating rail freight services, reduces operational efficiency and flexibility, dampens the uptake of new technology and pace of innovation, and ultimately hampers the ability to compete with other transport modes.

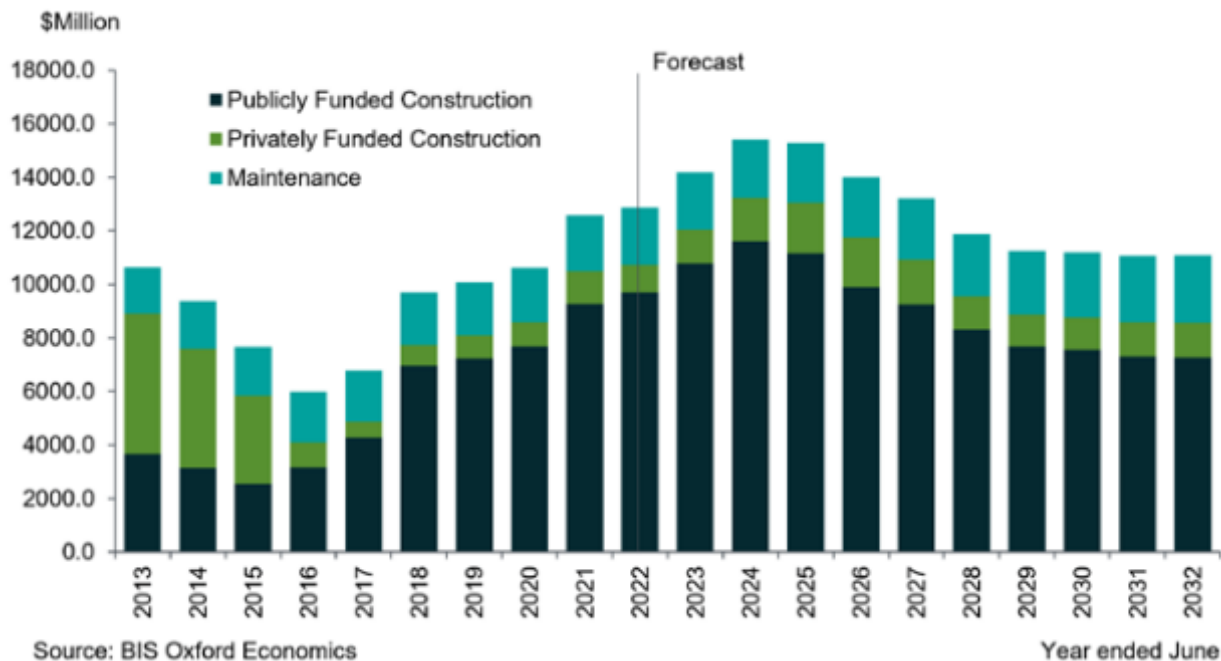
This lack of a national rail systems perspective is compounded by the increasing sophistication of below and above rail technology, rolling stock, signalling and communication systems. These factors stand to exacerbate interoperability issues over time.

Last year the Prime Minister, state Premiers, and territory Chief Ministers made the historic decision that "Improving the interoperability of rail systems" would become a National Cabinet priority. This decision signifies how important this issue is to governments across Australia to ensure our rail systems are able to operate more efficiently and be better utilised for the movement of freight. The decision is also reflective of the unprecedented level of investment in rail infrastructure projects across the country.

Rail construction and maintenance activity in Australia rose to a record \$12.9 billion in 2021-22, with activity forecast to average \$14.4 billion over the next five years. Overall, \$129 billion in rail civil construction and maintenance is forecast for the coming decade to 2031-32, compared to \$96 billion over the last decade. Over the next 15 years, \$154 billion in rail construction work is expected.¹

¹ ARA Australian Rail Market Outlook, Bis Oxford Economics, 2022

Figure 1



With such a significant investment pipeline in place, it is essential that solutions to our interoperability challenges are addressed as soon as possible. It is also worth noting that much of this investment is being undertaken by state governments on passenger rail projects, largely isolated from other networks with little consideration for freight operations or interoperability. Improving interoperability will be critically important to avoid a 'digital break of gauge' in signalling systems, similar to the physical break of gauge that has plagued rail track infrastructure since Federation.

National Cabinet has now delegated Infrastructure and Transport Ministers (through ITMM) to progress the issue of improving the interoperability of rail systems. In December 2022 the Ministers of ITMM agreed that the National Transport Commission (NTC) focus on five priority areas identified as critical pain points for the rail industry.

These priority areas are:

- identifying the best mechanism for codifying a small number of critical national standards and complementary rules to make rail more competitive;
- aligning train control and signalling technology on the eastern seaboard;
- reducing the burden on drivers, crew, and maintenance workers;
- streamlining rolling stock approval regimes; and
- identifying the national/international pathways for digital skills required in Australia in the next five years.

At the most recent ITMM in June 2023, Ministers agreed to codify a small number of high-impact interoperability standards required to achieve nation-wide safety and productivity benefits. The standards will be performance-based with a priority focus on digital train technology, a single on-board interface for drivers and crew, and streamlining rolling stock approvals. Ministers also asked that a stocktake and gap analysis be undertaken of the current supply chain capacity in the Australian rail manufacturing sector, including identifying opportunities to support local suppliers to grow and have greater ability to deliver componentry to support local outcomes.

Further to this initiative, the Australian and Victorian governments, as well as the ARA on behalf of rail industry leaders, have come together to sign the historic Memorandum of Cooperation to address longstanding coordination issues between Australia's rail networks.

The agreement will improve rail's competitiveness, boost national productivity and improve connections between cities, regions and ports. The first signatories to the Memorandum of Cooperation include Australia's Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon Catherine King MP, Victorian Deputy Premier, the Hon Jacinta Allan MP, and the chair of the ARA, Danny Broad.

The Memorandum has now been signed by state transport Ministers, rail operators and manufacturers, including Siemens, Alstom, Aurizon, Metro Trains Melbourne, Tasrail and ARTC. Further signings between Australian transport Ministers and industry builders, operators, and manufacturers are being progressed across the country to maximise the opportunities from the investments to improve rail connections.

Given the significance of the rail interoperability challenge and the current focus from all governments on improving productivity, the ARA believes it is important that this issue be recognised in the Infrastructure SA Strategy. Rail is already responsible for the majority of Australia's freight task and if it is to become more competitive with road in the containerised freight market, as well as play a greater role in decarbonising the economy, then it is critical that we improve the interoperability of rail systems.

A decarbonised, sustainable economy

Question 17: What are the most significant challenges for decarbonising transport and how do we address them?

In 2022, the Australian Government committed through legislation to achieve Net Zero greenhouse gas emissions by 2050, with a target of achieving 43 per cent below 2005 levels by 2030. This ambitious goal will require a significant shift in traditional operations for several industries, including the transport sector.

In 2020, the transport sector accounted for 19 per cent of Australia's total greenhouse gas emissions. The vast majority of these emissions (85 per cent) were generated by road transport, with trucks alone accounting for 20 per cent of all transport emissions. Rail by comparison, accounted for only 4 per cent of emissions for the entire transport industry, despite moving 56 per cent of Australia's total freight.²

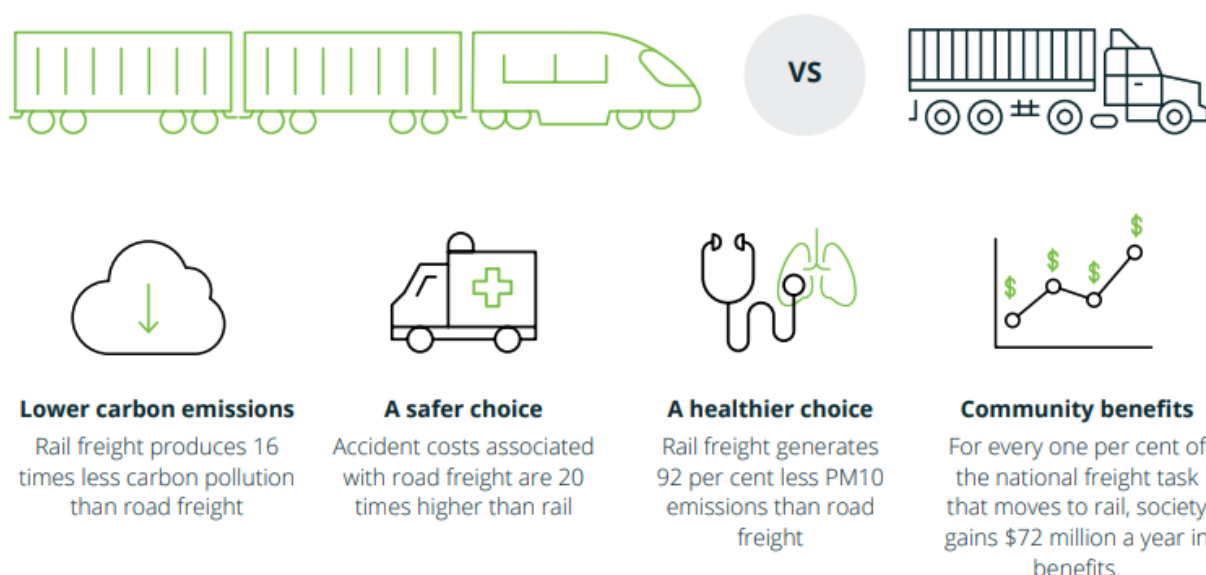
With rail freight producing 16 times less carbon pollution per tonne kilometre than road freight, it is essential that the SA Infrastructure Strategy recognises the need to shift a greater amount of freight off the road and onto rail. While road freight will always play an important role in our national supply chain, particularly for last-mile connections, there is a significant opportunity to increase the role of rail in moving non-bulk freight.

In 2020, of the total freight moved by rail only 5.6 per cent was non-bulk freight, which highlights the significant opportunity to consider mechanisms for rail to play a greater role in moving non-bulk freight through our supply chain, particularly on the east-coast of Australia. This would reduce the transport sector's greenhouse gas emissions, as well as improve road safety through reduced heavy vehicle congestion.

² Australia's emissions projections 2022, DCCEEW, December 2022

Figure 2

Getting more freight onto rail delivers significantly better outcomes for the community, and should be a national priority.



There is an opportunity to improve rail's modal share through the development of incentive schemes that encourage a greater uptake of rail for the movement of freight. There have been examples of successful incentive schemes in Australia, most notably the Fremantle container rail subsidy in Western Australia.

In 2006-07, the WA State Government established the Fremantle Container Rail Subsidy in an effort to lower the cost and increase the proportion of container freight on rail in and out of the Port of Fremantle's Inner Harbour. The Subsidy is one of the policy tools Government uses to help reduce total costs associated with moving containers by rail, making it more competitive with road. The scheme has been very successful, lifting rail freight modal share from 2 per cent to over 20 per cent.

The Infrastructure SA Strategy should consider the establishment of a rail freight modal shift incentive scheme. Doing so would assist South Australia in reducing the number of carbon-intensive heavy vehicles on the road network and reduce traffic congestion, while improving the decarbonisation of the state's transport sector.

Improved resilience

Question 20: How do we better account for the impacts of climate change in our infrastructure, to support improved resilience?

Question 21: What are the critical resilience issues that South Australia needs to address?

Over the last three years we have witnessed the devastating impacts that severe weather events and flooding have had on communities around the country. These events have also heavily impacted the rail freight network and resulted in significant disruptions to our national supply chain.

The interconnectedness of rail to other freight modes is a critical factor for consideration. Rail plays an essential role in moving large amounts of freight around the country to both ports and intermodal terminals, where it is then transferred to either road or sea to reach its destination. The Rail infrastructure in South Australia provides a critical link between the east and west coast of Australia, as well as into the Northern Territory.

When these critical rail links are disrupted, the flow on effects to other modes and the broader supply chain is significant. Below are just a few examples of the real-world impacts experienced by supply chain businesses from weather related disruptions to rail infrastructure over the last two years.

- Critical supply shortages of basic pantry items and consumer goods in major supermarkets in Western Australia and the Northern Territory, with supermarkets forced to introduce buying limits on pasta, meat, frozen food, toilet paper and sanitary products.
- Rail outages caused by flooding resulted in Austrans customers experiencing 6 - 8 week delays on good being delivered, with a number of customers cancelling their contracts completely due to the impacts on their businesses.
- In Whyalla, South Australia, Liberty Primary Steel lost approximately 90 days of rail access to transport structural steel and reinforcement products to key projects across the east coast of Australia. This resulted in considerable economic loss to the manufacturers, distributors, logistics partners, project owners, and communities.
- Interstate deliveries of steel products produced by InfraBuild, which are critical to the nation's ongoing infrastructure renewal and construction program, have been compromised numerous times over the past 18 months due the effects of ongoing weather-related rail outages.

Infrastructure resilience is an issue that has come to the forefront for several industries in recent times and rail is no exception. The Australian rail industry has an overarching goal to improve Australia's productivity and help make rail the mode of choice in the national logistics supply chain, however this goal is becoming increasingly difficult due to the state of rail infrastructure.

It is critical that rail infrastructure managers (RIMs) be enabled to promote the greater use of rail by delivering a safe, more reliable and robust rail network which meets customer expectations and provides capacity for growth. Unfortunately, severe weather-related events are increasing in frequency, highlighting the need to improve the national freight rail network through a greater understanding of network vulnerabilities and plan for resilience improvements.

This issue is perhaps best highlighted by the major flooding event that impacted over 300km of ARTC's track between Crystal Brook and Kalgoorlie in January last year. The repair cost for the 18 sites impacted by this event alone was close to \$40 million, however the direct economic cost was far greater, estimated at \$320 million or \$13 million per day. Importantly, this event has had a negative impact on rail operators, the reputation of RIMs and freight on rail more broadly, as well as having wider economic impacts. A **case study** on this event is provided on the following page.

This type of event highlights the growing importance of network resilience in the face of more extreme and frequent climatic events, in particular where areas are classified as critical network, with no, or poor alternative options.

Unfortunately, much of our rail freight infrastructure was built more than 100 years ago and was simply not constructed to modern design standards capable of withstanding the effects of climate change and increasingly extreme and frequent weather events. This has highlighted the need to improve the national freight rail network through a greater understanding of network vulnerabilities and plan for resilience improvements.



Industry efforts to-date have focused on measures to improve resilience but have largely been limited to reducing the probability of infrastructure failure. Future proofing rail supply chains will require concerted effort to identify, fund and deliver a program of rail infrastructure upgrades across the country which improve network redundancy, reliability and resistance, particularly in response to climate risk. The emphasis has to be on reducing whole of life costs, even where the upfront ask is higher.

It is important that the SA Infrastructure Strategy recognises the critical role rail infrastructure plays in the movement of essential goods for communities across the country. In particular, it must be recognised that the rail infrastructure in South Australia forms an essential part of the national rail network with main trunkline connections to Western Australia and the Northern Territory.

The SA Infrastructure Strategy should recognise the ongoing work being progressed by the Australian Government's Road and Rail Supply Chain Resilience Review. This should include a commitment to engage with the Australian Government on progressing detailed business cases and investment into improving the resilience and reliability of critical rail freight infrastructure.

Case study: 2022 South Australia floods

The January 2022 flooding event which impacted over 300km of ARTC's track between Crystal Brook and Kalgoorlie underscored the urgent need for investment and decisions to improve the resilience of Australia's national rail freight corridors to secure national supply chains.

As a direct result of this flood event there was an unprecedented 24-day outage and coordinated repair operation which included 18 locations across 300km of track requiring major repairs which cost close to \$40 million. Importantly, the network west of Crystal Brook has no alternative route, making goods that rely on this route particularly vulnerable in case of protracted outage. Rapid recovery of this line, in case of major damage, is also compromised by the relative absence of intermodal terminals that could be used to facilitate land-bridging if a section of track is compromised.

A snapshot of the event impacts is outlined below.

- 200mm of rainfall was recorded in a one-day period causing washouts and ballast scouring.
- The track was closed for 24 days while repairs were carried out across a 300km section of track.
- Road freight was also suspended due to flooding for two weeks, owing to the proximity of road and rail routes.
- Typically, 80 per cent of Western Australia's land-based freight arrives by rail. Supermarkets in Western Australia and the Northern Territory faced supply shortages and were forced to introduce buying limits on pasta, meat, frozen food, toilet paper and sanitary products.
- Woolworths was forced to use sea freight for deliveries in Western Australia for the first time in decades.
- NSW water utilities faced supply shortages for critical chemicals used in water treatment processes.
- **The economic cost to the nation was evaluated at approximately \$320 million, or over \$13 million per day.**

Whilst the 2022 flood event impacting East-West rail traffic was unprecedented in scale and duration, increasingly extreme and frequent weather events have been observed on the network with increasing regularity.

In February 2021, the Wooroloo bushfire impacting a 6km section of the East-West line managed by Arc Infrastructure resulted in a six-day outage. In the same month, flooding at Nana Glen resulted in a 10-day outage on the North-South line in northern NSW, saw the derailment of two locomotives and 18 wagons and required the rebuild of 300m of track to restore operations.

A stronger infrastructure industry

Question 23: How can government and industry work together to support the supply of skilled labour needed to deliver a transparent infrastructure pipeline?

The review of Infrastructure Australia (IA) last year identified the need for IA to take a more active and leading role in working with jurisdictions to develop a coordinated national infrastructure plan. This is an initiative that the ARA supports. The development of a national investment plan, allowing for the coordination of the project pipeline across jurisdictions, would greatly improve industry's capacity to deliver, given supply chain constraints and current skills shortages (particularly in key specialised skill roles).

It is widely recognised that the unpredictability of government infrastructure investment inhibits private sector investment in long term capacity. The [ARA's Australian Rail Supply Chain report](#) published in 2020 highlighted the importance of this issue, recommending that infrastructure pipelines be regularly reviewed and published well before procurement phases commence. This would ensure local firms have adequate time to prepare and invest to meet the forecast demand.

This issue is broader than just having a visible long-term pipeline of work. The promise of work is not enough. The supply chain cannot make commercial decisions to invest in specific capacity and capability until they are contracted to a project. Therefore, delays in the procurement process and the execution of contracts can be an impediment to timely delivery of project milestones. In the absence of a national coordinating body, state governments should regularly review and re-publish their rail investment pipelines, as well as committing to the priority project recommendations of Infrastructure Australia.

Existing investment and procurement processes are highly fragmented, with each state's planning and policy developed in isolation from the other states. Most firms in the Australian rail industry operate across state borders and are therefore in direct competition with other local firms over human and capital resources, a situation which is exacerbated by uncoordinated local content policies, indigenous and workforce requirements, and social requirements. This poses risks to both the number of tenderers, delivery timeframes and quality of supply to Australian rail projects, as well as the growth and sustainability of local firms and jobs.

Ensuring that individual pipelines are developed in recognition of other investment plans allows Australian rail firms to plan, prepare, and coordinate several projects in multiple jurisdictions. Coordination of the project pipeline would also better support industry's capacity to efficiently deliver against government project milestones.

Rail construction and maintenance activity in Australia rose to a record \$12.9 billion in 2021-22, with activity forecast to average \$14.4 billion over the next five years. Overall, \$129 billion in rail civil construction and maintenance is forecast for the coming decade to 2031-32, compared to \$96 billion over the last decade.

Over the next 15 years, \$154 billion in rail construction work is expected.³ Given the current significant levels of investment, it is vital that the rail investment pipeline is transparent, has long lead times for major projects, and provides sustainability to encourage private investment in capacity and capability building.

The ARA would encourage Infrastructure SA to collaborate and coordinate closely with Infrastructure Australia and other i-bodies across the country in the development of infrastructure strategies and investment plans. Greater coordination and alignment between jurisdictions on the major infrastructure projects and timelines would provide industry with a much higher degree of certainty. It would enhance the ability to better plan and manage capacity, and in doing so ensure more projects are delivered on schedule and within budget.

Question 25: How can government continue to encourage collaboration and innovation in procurement?

The powerful growth of the infrastructure market in the last 20 years has brought with it a legacy of relatively high costs compared to many of Australia's global peers. On simple metrics, the cost of building core infrastructure in Australia is expensive in world terms, with tendering costs in Australia estimated to be around 1-2% of a project's total cost, at least double the world benchmark of 0.5%.⁴ Reducing these costs would deliver multiple benefits: more bidders would be likely to join the tender process, increasing competitiveness; cutting red tape would see tender processes completed faster; and resources saved in the tender process could be focused on project delivery. Ultimately these costs are borne by taxpayers and infrastructure users.

The future of Australia's rail construction sector hinges upon driving down the high costs of tendering, more consistent project planning on behalf of governments, and greater industry collaboration. A sustainable rail construction industry is vital to deliver the rail infrastructure pipeline and reboot Australia's economy.

Given this period of uncertainty due to the global pandemic, governments are faced with tighter budgets while also needing to progress initiatives to stimulate employment. In these difficult circumstances, it is vital that we strive to improve procurement processes with increased clarity, collaboration, and efficiency. COVID-19 should be utilised as the catalyst for change.

It is estimated that \$155 billion of rail investment is planned in the next 15 years.⁵ This will require specialist skills, at a time of skills shortages, to devote towards the procurement and delivery of projects. This will amplify the need to develop more productive and efficient approaches to procurement. If processes do not improve, contractors may be more selective in which tenders they will bid on. Procurement practices that are resource intensive, expensive, high risk, or likely to be delayed are considered less attractive.

³ ARA Australian Rail Market Outlook, Bis Oxford Economics, 2022

⁴ Rail Express, The Sustainability of Rail Contracting in Australia, 2012

⁵ BIS Oxford Economics, 2020

It should also be acknowledged that the Australian rail industry operates within a global market, with many other countries competing strongly for investment, resources and technical support. If the Australian market is seen as too expensive or uncertain for rail infrastructure, then international companies will redirect their interest and resources into other more favourable locations.

In consultation with rail infrastructure constructors, the ARA developed and published [Best Practice Principles for Rail Construction Procurement](#) in 2020, which summarises the principles that would help achieve improved outcomes for both governments and industry. Implementing these principles would aid rail construction procurement efficiencies for both procurers and tenderers, assist in reducing costs, get more rail projects off the ground faster, and create more jobs.

The key considerations outlined in this document include:

- Ensuring tender size and requirements do not obstruct tier 2 and 3 contractors bidding
- More transparent evaluation and weighting of tender criteria
- Streamline the pre-qualification process
- Reduce red-tape while still meeting probity obligations, by ensuring probity requirements are risk-based and that the costs and impact of mitigations are proportionate to the risks involved
- Standard contracts and standardised T&Cs could save time and reduce administration costs
- Contract models need to support a collaborative partnership approach for the benefit of both parties
- Risk needs to be defined, quantified, fair and capped
- Key performance indicators (KPIs) need to be proportionate to the margin of the contract
- Reasonable recompense should be provided to all tenderers to help recover costs associated with a competitive tender process through a claims process
- Consistent implementation of progressive cost reimbursement during the tender process
- Ensure commercial model and tender processes do not limit productivity and project outcomes, but support new technologies and processes

There are clear signs that the industry faces capacity challenges in delivering the pipeline of projects. Resources consumed in the procurement process are taken away from the industry's capacity to deliver. With every rail infrastructure project, there will be subsequent requirements for supporting operations and maintenance tenders. The rail industry requires relatively specialist, scarce and high-value technical skills. This is particularly true in the areas of rolling stock and signalling. The typical procurement process requires high levels of access to the most skilled of these specialists.

Ensuring a more efficient tender process that minimises the consumption of resources on redundant and non-productive outcomes would also reduce procurement timeframes, reducing costs and improving productivity outcomes. Further, standardised contracting models and risk allocation frameworks for delivery will also reduce tender development and negotiation costs. Creating a consistent and well understood delivery environment will also lead to more successful project delivery outcomes.



In consultation with rail manufacturers and suppliers, the ARA developed and published a [Best Practice Guide to Rollingstock and Signalling Tendering in the Australian Rail industry](#). Many of the principles in this guide, reflect those highlighted in the construction guide.

Inevitably, the benefits arising from any process optimisation and standardisation are multiplied when adopted across Australia's procurement agencies. The ARA therefore supports the national convergence and practical standardisation of procurement practices across jurisdictions to the greatest extent possible.

A national registration portal that supports pre-qualification, (for example, with expanded functionality of Tenderlink, or Industry Capability Network Gateway, or Aust Roads pre-qualification scheme) could enable suppliers to input information once, so contractors as well as purchasers can easily identify registered suppliers and access necessary supplier information, including accreditations. Harmonising accreditation recognition across jurisdictions (as well as internationally) will assist in addressing costly inefficiencies.

The development of such a scheme requires close consultation and support from state and territory government transport agencies, Rail transport Operators, OEMs and Tier 1 contractors. The ARA has commenced investigating the benefits of a national pre-qualification scheme (including options for mutual recognition) for the rail industry and is consulting with all relevant stakeholders to progress this important initiative.

The Infrastructure SA Strategy should recognise the importance of greater coordination and harmonisation of procurement practices across jurisdictions. Achieving a greater level of consistency and streamlined processes would reduce cost associated with infrastructure delivery for both governments and industry, as well as improve productivity and reduce unnecessary regulatory burden.

SOUTH AUSTRALIA'S 20-YEAR STATE INFRASTRUCTURE STRATEGY DISCUSSION PAPER

Australian Energy Producers | 13 November 2023

The Australian Energy Producers welcomes the opportunity to provide comment and feedback on Infrastructure SA's discussion paper. Australian Energy Producers appreciates the open and pragmatic approach taken by Infrastructure SA which recognises the importance of the oil and gas industry in achieving the objectives outlined in the discussion paper.

To ensure South Australia's infrastructure objectives are achieved, Australian Energy Producers provides the following comments and recommendations:

- Investment in the oil and gas industry is critical to mitigating the rising cost of living and high energy prices.
- The Australian oil and gas sector has a central role to play in reaching net zero across Australia and the region.
- Electrification cannot address emissions from hard-to-abate industry where natural gas provides a feedstock or high-temperature heat; even where electrification is technically viable, it is dependant vast quantities of firmed renewable energy.
- Australian Energy Producers highlights the role of gas and decarbonisation technologies such as carbon capture, use and storage (CCUS) in reaching net-zero, particularly for many hard-to-abate industries, including cement, iron and steel, chemical and fertilizer production and more.
- Australian Energy Producers highlights the role of the oil and gas industry in the hydrogen industry in SA. Australian Energy Producers supports a technology agnostic, least-cost, and emissions-intensity focused approach to low-carbon hydrogen (LCH) development in SA.
- Abundant gas reserves and production infrastructure in combination with repurposed end-of-production gas infrastructure for CO₂ transport and storage provide SA with the opportunity to fast-track large scale LCH production.
- Shared infrastructure provides a range of benefits to support the equitable and efficient transformation to a net zero economy.
- The Nangwarry CO₂ project presents an opportunity to support industries dependent on food and industrial-grade CO₂. This project has the potential to mitigate and respond to disruptions affecting SA's CO₂ supply.

The oil and gas industry plays a pivotal role in SA's infrastructure, serving as a reliable and efficient source of energy for various sectors, including transportation, manufacturing, and residential needs. Australian Energy Producers' members fosters economic growth, creating employment opportunities and driving innovation in related sectors, bolstering overall national and state development. Australian Energy Producers and its members looks forward to working with government to progress these matters further going forward.

Sustained investment in the oil and gas industry is critical to mitigating the rising cost of living and high energy prices. For gas exploration and production to continue to be funded privately, Government needs to ensure there is the appropriate setting for companies (including small gas producers) to access funding. Companies find it increasingly difficult to raise capital for projects given the uncertainty and intervention in the gas industry, which has dramatically impacted the market and share prices. Exploration is low and will remain low unless there are incentives and certainty to encourage more investment.

Energy Consumers Australia's *Analysis of small business retail energy bills in Australia* report found that businesses in SA have the highest annual electricity bills in the country, and average annual gas bills for businesses consuming 100 GJ per annum in SA have increased 27% from the previous year.¹ The rising costs of energy pose a complex threat to the people of SA and the stability of energy security. When energy prices increase, households, especially those with limited means, are forced to allocate larger portions of their budgets to cover basic energy needs, leaving less room for other essential expenses. This strain on disposable income often leads to reduced standards of living, increased financial stress, and a heightened risk of energy poverty. Moreover, higher energy costs can exacerbate economic disparities, creating a ripple effect that impacts various sectors, including transportation, manufacturing, and agriculture, thus potentially triggering a domino effect on the overall economy. The threat to energy security and cost is important to consider, as reliance on expensive energy sources can make the state vulnerable to disruptions and market volatility, impacting sustainable development and hindering long-term energy planning and resilience strategies.

Energy supply risks must be addressed as a priority. If the essential role of gas in powering Australian households and businesses is undermined, there will be further cost-of-living pain for all Australians and an increased risk of blackouts. The Australian Energy Market Operator (AEMO) is clear on the ongoing importance of natural gas stating, "Gas is forecast to have a continuing role in the integrated energy system, including a critical role for gas generation of electricity", further highlighting that "gas generation plays an increasingly important role in firming renewable energy." It is important to consider the impact of different technologies coming online. AEMO's Electricity Statement of Opportunities states that "[p]otential development of hydrogen electrolyzers is forecast to increase NEM electricity consumption by up to 10% by 2032-33" further highlighting the importance of gas in supporting the deployment of hydrogen.²

But against the backdrop of the continued importance of gas, AEMO and the Australian Competition & Consumer Commission (ACCC) both continue to warn of gas shortfall risks due to declining gas production, with insufficient new supply coming online to meet demand. And the impacts of shortfalls will be significant. The ACCC states that shortfalls "would place continued upward pressure on prices in the domestic gas market, as well as pressure on the electricity market" at a time when Australian households and businesses are already suffering with immense cost-of-living pressures. This is in addition to risking the lights going out if the gas supplies needed to back up renewable energy are not there when and where they are needed. The continued investment and support of the gas sector is critical to the resilience of the energy system in SA.

¹ [Analysis of small business retail energy bills in Australia - Energy Consumers Australia](#)

² [AEMO 2023 Electricity Statement of Opportunities August 2023](#)

The Australian oil and gas sector has a central role to play in reaching net zero across Australia and the region. The Australian oil and gas industry is committed to net zero across the economy by 2050. Natural gas supports the transition away from coal, provides the firm dispatchable energy required to unlock large-scale renewable energy deployment, and powers Australian industries across the economy including those processing the critical minerals necessary for net zero. Natural gas is essential for the materials that underpin our way of life, including nitrogen fertilisers, cement, steel and plastics. The Australian oil and gas industry is central to delivering key step-change emissions reductions technologies such as CCUS and LCH – noting natural gas with CCUS is the lowest-cost, most advanced pathway to LCH today, meaning significantly more emissions reductions per dollar today relative to alternate production methods.

Electrification cannot address emissions from hard-to-abate industry where natural gas provides a feedstock or high-temperature heat; even where electrification is technically viable, it is dependant vast quantities of firmed renewable energy. Electrification using renewables energy is commonly cited as an alternative to natural gas use across the economy, including in industry. As mentioned previously, the role of natural gas in industry is often associated with providing high-temperature or precision heat or as a chemical feedstock. In these instances, electrification is not an alternative to natural gas use. Further, where significant power is required, natural gas may still be the most viable energy source in the near- to medium-term, due to the scale, reliability and dispatchability natural gas power generation provides. This is particularly the case in remote, off-grid locations. Large scale renewable projects in the industrial sector may also encounter supply chain challenges given the pace of renewable roll-out also required in the electricity sector.

CCUS combined with natural gas will be the least-cost, most technically viable emissions reductions pathway for many hard-to-abate industries, including cement, iron and steel, chemical and fertilizer production and more. CCUS has been deployed at commercial scales for over a quarter of a century and as such, is significantly more technically advanced than many natural gas alternatives. In many instances natural gas with CCUS may also be one of the few, and in some cases only, viable technologies for decarbonising, in particular where natural gas is used for high-temperature or controllable heat or where it is used as a feedstock, such as in cement, iron and steel, chemical and fertilizer production.

Australian Energy Producers highlights the role of the oil and gas industry in the growth of the hydrogen industry in SA. Australian Energy Producers supports a technology agnostic, least-cost, and emissions-intensity focused approach to LCH development in SA. LCH produced from natural gas with CCUS is the lowest cost and most technologically advanced pathway to LCH, delivering significantly more emissions reductions per dollar today. A technology-neutral, emissions-intensity focused approach that includes LCH from natural gas with CCUS will enable more hydrogen to be produced sooner and at a lower cost, supporting growth in LCH demand and the development of a domestic LCH industry. Progressing a range of LCH pathways diversifies supply chains, leverages a greater range of existing skills and infrastructure, manages risks and complements broader climate change mitigation efforts in Australia. The oil and gas sector is central to the development of LCH globally and in SA, including both renewable-based hydrogen and LCH produced from natural gas with CCUS. The strength of SA's oil and gas sector, combined with world class renewable energy, natural gas and CO₂ storage resources gives SA a comparative advantage across multiple LCH pathways.

Abundant gas reserves and production infrastructure in combination with repurposed end-of-production gas infrastructure for CO₂ transport and storage provide SA with the opportunity to fast-track large scale LCH production. SA's natural gas infrastructure can be leveraged for the establishment of a LCH sector, including both LCH from natural gas with CCUS as well as renewable based LCH. SA has abundant natural gas reserves and extensive natural gas infrastructure that can produce and deliver the gas needed to create hydrogen. Today, as much as 650,000 tonnes of hydrogen are produced in Australia each year from natural gas.³ In addition, across the country efforts are already underway to repurpose gas production and transport infrastructure – where gas production has ceased – for the development of large-scale CCUS. This combination of operational and end-of-production natural gas infrastructure can underpin the development of least-cost LCH production from natural gas with CCUS. In-turn this can support the build-up of hydrogen demand and hydrogen infrastructure for domestic use and for exports, which can be leveraged by renewable-based LCH and other LCH pathways as their costs come down and production scales up.

Shared infrastructure could provide a range of benefits to support the equitable and efficient transformation to a net zero economy. The majority of emissions sources in SA and across Australia require the same four net zero technology building blocks to reduce their emissions: natural gas, renewable energy, low-carbon hydrogen and CCUS. In many instances, manufacturing and industrial facilities are going to need to rely on shared emissions reductions infrastructure to meet their climate mitigation targets. Shared infrastructure could provide a range of benefits to support the equitable and efficient transformation to a net zero economy:

- reducing the costs and timelines for reaching net zero
- powering regional manufacturing and industry – creating and protecting regional jobs
- underpinning net zero critical mineral production and processing
- leveraging existing infrastructure
- creating a magnet for regional net zero investment
- providing focal points for streamlined government approvals and environmental permitting
- establishing the foundations for net zero energy and industrial exports and imports. The Santos/Beach Moomba CCS project has notable potential to store CO₂ from international trading partners.

For the emerging hydrogen industry, linking multiple suppliers with multiple LCH users will be the most efficient way to deliver LCH at scale. Future-proofing early investments in hydrogen infrastructure to allow them to be extended and expanded to accommodate new LCH production facilities as well as industrial LCH users will be important to avoid creating future bottlenecks to the LCH scale-up. Similarly, the 20-year state infrastructure strategy needs to be integrated and aligned with broader energy and industrial planning to ensure an optimised approach to infrastructure is developed, including LCH infrastructure.

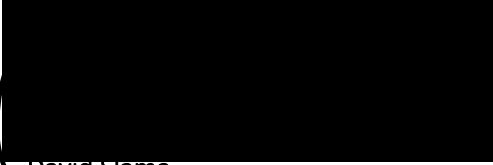
The Nangwarry CO₂ project presents an opportunity to support industries dependent on food and industrial-grade CO₂. This project has the potential to mitigate and respond to disruptions affecting SA's

³ Advisian 2021, Australian hydrogen market study – Sector analysis summary

CO₂ supply. CO₂ users face shortages due to plant shutdowns and high import prices. Vintage Energy Energy's Nangwarry project has a potential 20-year supply of CO₂ to support SA's industries in meeting current and future CO₂ needs for a variety of commercial purposes, including the southeast region's transport industry, greenhouse food production, algae cultivation, supporting biofuel production, emission reduction, and carbon sequestration. The Australian Energy Producers recommends the Infrastructure SA and the SA Government assess suitable measures to support the advancement of the Nangwarry CO₂ project.

The Australian Energy Producers and Australian Energy Producers' members are key stakeholders in South Australia's infrastructure future. We welcome the opportunity to remain engaged in the strategic discussion and consultation.

Yours sincerely,



David Slama

Director South Australia



South Australia's 20-year State Infrastructure Strategy Discussion Paper Feedback

Introduction

The Australian Flexible Pavement Association (AfPA) is the peak body for the multi-billion-dollar flexible pavement industry in Australia.

For over 50 years, AfPA has represented the flexible pavement industry to lead safety, sustainability, innovation, knowledge, and collaboration outcomes unified voice on the advancement of flexible pavement technology for the benefit of all road users.

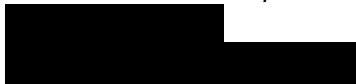
The flexible pavement industry is directly involved in the delivery of vital road maintaining infrastructure projects across metropolitan and rural Australia. However, flexible pavement doesn't just mean roads, the industry provides the critical infrastructure Australia relies on, including airport runways, ports, busways, railway access tracks, car parks and much more.

Our membership brings together a unique and diverse collective of industry, all state road authorities, and several Councils from across Australia.

AfPA represent our members and act as a source of technical and reference information for both industry and governments nationally.

Contact:

Melissa Ekberg
Executive Director SA/WA



On behalf of AfPA, we are pleased to provide the following recommendations to the consultation questions asked regarding South Australia's 20-year State Infrastructure Strategy discussion paper.

Question 1

What opportunities should we consider improving South Australia's economic growth?

Infrastructure Investment: Encourage government on all levels to continue to invest infrastructure projects that involve road construction and maintenance. It is expected that the regional growth in South Australia to increase in line with the increase in the energy and mining sectors. Regional road improvements will assist with the attraction to live in regional areas.

Local Sourcing: Encourage state governments, local councils, and head contractors to source asphalt materials locally, boosting the local industry. Local Industry Participation needs to remain a must do to increase the economic return on investment from infrastructure projects.

Research and Innovation: Invest in research and development for asphalt technologies and mixtures that are more durable, environmentally friendly, and cost-effective. Explore the use of new technologies and products such as EME2 pavement management systems, to optimise maintenance schedules and prolong the lifespan of roads.

Sustainable Practices: Promote sustainable asphalt production and construction practices, such as using recycled materials, warm-mix asphalt, and low-energy production methods. Promote the recycling of asphalt materials to reduce costs and environmental impact. Advocate for incentives or subsidies for asphalt companies that invest in environmentally friendly practices and materials.

Training and Certification: Invest in training programs to ensure a skilled workforce in the asphalt industry, which can lead to better quality work and increased demand.

Maintenance Contracts and Secure Pipeline of projects: Maintain the long-term maintenance contracts for roads and surfaces, which can provide a more stable income for asphalt companies with a secure pipeline of rehabilitation and resurfacing program. This will enable contractors to invest and remain in the local South Australian market.

Providing industry with a transparent, up-to-date pipeline of infrastructure works more frequently is crucial to ensuring business sustainability. This has been an ongoing concern that the South Australia's infrastructure pipeline is consistently delayed. Transparency of what projects are at varying stages needs to occur to allow business to prepare for the future.

Question 2

What infrastructure constraints are preventing a more efficient, accessible, and productive freight sector?

South Australia's road infrastructure, particularly in regional areas, is inadequate for the growing demand for freight transport. Insufficient road capacity, poor road conditions, and congestion can lead to delays and increased transportation costs.

Adequate investment in infrastructure development and maintenance is crucial for addressing these constraints. Securing funding for projects to expand and upgrade the transportation network can be a significant challenge.

South Australia maintains approx. 11.8% of the National local road network yet receives 5.5% of the national allocation for supplementary local road funding.¹

It is estimated that the current road maintenance backlog is \$1.935bn², with South Australia's main freight routes having a lion's share of backlog defects and road rebuilding requirements.

Poor road quality adds to vehicle maintenance costs, travel time, and increases carbon output and overheads for the freight industry, which is then passed onto the end user.

A study in 2010 demonstrated that a 10% efficiency improvement in the freight network efficiency could add \$810m to the Gross State Product and create 8500 new jobs.³

Question 7

How can South Australia better coordinate infrastructure investment to support a growing population?

Collaboration between government agencies, local councils, private developers, and industry stakeholders, including the asphalt industry to encourage coordinated planning to ensure that infrastructure projects align with the capability and the capacity of the entire industry. This will result in strategies to better forecast infrastructure works by developing a comprehensive, long-term infrastructure vision that considers the expected growth in the population in all regions.

Early engagement with the community and industry stakeholders in the decision-making process to ensure that infrastructure investments align with their needs and concerns. This can help build support for projects and promote a sense of ownership among the population. Identify and prioritise infrastructure projects that have the most significant impact on economic growth, job creation, and the well-being of the population.

Consider regional opportunities by creating or expanding on existing industries such as energy, agriculture, mining, recycling, etc to encourage population growth in outer areas.

¹ <https://www.dit.sa.gov.au/local-government/grants-commission/road-funding>

² <https://www.adelaidenow.com.au/news/south-australia/taxpayers-face-3bn-bill-to-fix-states-crumbling-roads-as-official-review-probes-government-contracts/news-story/b7865a2e224f58a1a335e24dd97b3f1c>

³ https://www.infrastructure.sa.gov.au/__data/assets/pdf_file/0018/111258/SA-Freight-Council.pdf

Ensure that infrastructure investments are aligned with environmental sustainability goals. adopting sustainable construction practices in the asphalt industry.

Invest in workforce development and training programs to ensure there is a skilled labour force available to support the infrastructure sector to be more resilient.

Continuously assess and review the effectiveness of infrastructure investments with all stakeholders the impact on the growing population. Make adjustments and improvements based on performance and changing needs.

Question 11

How can infrastructure support improved education and skills outcomes for South Australia?

South Australia is about to embark on the largest infrastructure project it has ever seen. The Torrens to Darlington (T2D) project is the final 10.5km section of the North-South Corridor. To date, there has been little skill development and investment into the workforce that will be required to undertake the estimated \$15.4 billion project. The project is expected to be completed by 2031 and will support 5,500 jobs per year (on average) for the next decade, which will create a skills legacy for South Australia ⁴. There will be additional skilled workforce needs in other infrastructure projects and road maintenance programs.

Careers in road construction now have trade recognition in South Australia, which enables the next generation of workers to receive formal qualifications in the industry⁵.

The Construction Industry Training Levy for the T2D is projected to be more than \$38million⁶. There is an opportunity for the state government to bring forward this funding and support the industry to begin upskilling and training the future workforce required for the T2D project, and other infrastructure works immediately.

The Office of the Industry Advocate's current guidelines state that major projects will seek to achieve a target of 20% for labour hours worked for apprentices and trainees ⁷, however it is rare that additional time in the programme of works is permitted to allow for training and upskilling of new and existing workforce. Project owners should be committed to achieving the outcomes and allow for training time in the planning stage of the project.

⁴ <https://www.t2d.sa.gov.au/about/careers-jobs#:~:text=The%20T2D%20Project%20will%20require,skills%20legacy%20for%20South%20Australia.>

⁵ https://training.gov.au/TrainingComponentFiles/RII/RII30920_R4.pdf

⁶ <https://citb.org.au/levy/calculator/>

⁷ https://www.industryadvocate.sa.gov.au/__data/assets/pdf_file/0008/941777/20230914-South-Australian-Industry-Participation-Policy-Procedural-Guidelines-1-January-2023.pdf

Question 19

What measures can be taken to enable the infrastructure industry to decarbonise?

Decarbonising the infrastructure industry is crucial for addressing climate change and reducing carbon emissions. AfPA has a commitment of Net Zero 2050, and to achieve that goal, industry and stakeholders need to work in unison.

AfPA has developed a pathway to leverage current initiatives to assist with achieving the commitment.

Timeframe	Initiative	Benefit
Short Term (< 3 years) – by 2026	Increased use of RAP ¹	15% RAP ~ 7% reduction in CO ₂ equiv.
	Adopting Warm Mix Asphalt ¹	Reduced production temp ~ 2% reduction in CO ₂ equiv.
	Reduce aggregate moisture ¹	2% reduction ~5% reduction in CO ₂ equiv.
	Use of Crumb Rubber ¹	CRB substitution to A15E ~ 5% reduction in CO ₂ equiv.
	Replace Hydrated lime ¹	Use of LASA ~ 11% reduction in CO ₂ equiv.
	Increased burner efficiency ¹	10% burner fuel reduction ~ 2.5% reduction in CO ₂ equiv.
	Reduction in diesel use ¹	Switch from diesel to LPG ~ 2 % reduction in CO ₂ equiv.
	Reduction in use of cutters in seals	Reduce GHG effects and improve safety
	Implementation of SF4P in tenders	Improve sustainability credentials
Medium Term (3-7 years) – by 2023	Improved durability of products	Achieve intended service life = reduced costs
	Increased use of recovered aggregates	Reduce quarry requirements and environmental impact
	Increased use of recovered sand	Reduce quarry requirements and environmental impact
	Circular procurement	Improve whole of project/asset considerations
	Sustainable Maintenance funding	Reduced long term maintenance and capital costs
Longer term (> 7 years) – Post 2030	Digitisation and AI	Leverage technology to ensure quality
	Electrification and Hydrogen	Transition completely from fossil fuel sources
	Modified contracts – Incentives	Leverage performance-based options
	Replacement for bitumen	Ultimate goal, but challenges to ensure performance
	Amended pavement design processes	Thickness reductions and alternative options possible

Notes:

¹ Based on a standard asphalt mix regularly requested by road authorities - estimates of benefit subject to variation against the base mix. Total of reduction ~ 30% - which is pathway to target for 2030.

AfPA members are equipped and are already taking action to encourage decarbonisation, and as an additional measure, AfPA has developed a Sustainability Framework for Pavements (SF4P). This is based on the circular economy concepts, including life cycle thinking and life cycle assessment approaches. SF4P is a key pillar of a broader sustainability strategy which enables road authorities and other stakeholders to define best practice, quantify sustainability achievements, embed sustainability metrics into procurement and reward industry for continuous improvement initiatives.

AfPA encourages procurement agencies to adopt the SF4P to set quantifiable metrics and benchmarks for the reduction in environmental impacts (e.g., greenhouse gases, energy, waste, etc.) associated with asphalt production and operations as part of their normal tendering processes. The Framework for Asphalt Production has demonstrated that it is possible to assist procurers of asphalt solutions to select from organisations demonstrating sustainable production processes leading to reductions in energy use and greenhouse gas emissions and maximising the use of RAP and other secondary materials (i.e., suitable “waste” products such as glass cullet, crumb rubber, plastics). It is envisaged that in adopting the framework, procurement agencies will be able to evaluate and select from suppliers who demonstrate a willingness to invest in their infrastructure and technology to deliver these services more efficiently and to reward where more sustainable options exist, such as incorporation of suitable ‘waste’ products within accepted solutions uniformly and transparently.⁸

Question 23

How can government and industry work together to support the supply of skilled labour needed to deliver a transparent infrastructure pipeline?

As mentioned earlier (Q11), making allowances to encourage more training and upskilling will support the skilled labour requirement for future projects.

Creating an expected skills requirement register for infrastructure projects during the early stages of procurement will assist industry prepare their workforce and create opportunities for career advancement on some occasions. It will also identify what (if any) specialised skill sets are required.

Question 25

How can government continue to encourage collaboration and innovation in procurement?

Encouraging collaboration and innovation in procurement is essential for governments to drive efficiency, cost-effectiveness, and positive outcomes in infrastructure projects.

Early engagement with all stakeholders, to gather insights and feedback before the procurement process begins. Too often it is seen that the engagement is held at the highest level of a project, with the smaller contractors (who are often the ones who undertake the work), not involved in the early stages of procurement. This will help to understand market capabilities, challenges, and innovative solutions.

⁸ <https://www.afpa.asn.au/wp-content/uploads/2023/04/Embedding-Sustainability-in-Procurement-.pdf>

Explore and encourage collaborative procurement models, such as joint ventures or consortiums, across larger packages of work (i.e., asphalt) where multiple organisations collaborate on a procurement initiative. This can lead to economies of scale, shared risks, and innovative solutions.

Adopt agile procurement methodologies that allow for iterative development and adjustments based on feedback. This facilitates collaboration and ensures that solutions meet evolving needs.

Develop strategic partnerships with industry associations, research institutions, and private-sector partners to leverage their expertise and promote collaboration in identifying innovative solutions.

Question 26

What are the funding and financing options government should consider in the future to ensure its program remains affordable and sustainable?

Explore innovative funding mechanisms, such as public-private partnerships (PPPs), to finance infrastructure projects. This can help reduce the burden on public finances while ensuring that projects are delivered efficiently. Engage with the private sector, including the asphalt and transport industries, to explore potential PPP opportunities.

Mr. Jeremy Conway
Chief Executive Officer
Infrastructure South Australia

Via email to: infrastructure@sa.gov.au

South Australia's next 20-Year State Infrastructure Strategy

Dear Mr Conway,

We welcome the opportunity to respond to the Discussion Paper on South Australia's 20-year State Infrastructure Strategy. For the energy sector, the strategy is an important opportunity to refresh the state's focus areas and objectives relating to infrastructure.

Australian Gas Infrastructure Group (AGIG) is one of Australia's largest energy infrastructure groups with distribution, transmission and storage assets worth over \$9 billion, including South Australia's gas distribution network. We deliver natural gas reliably, safely and efficiently to over 2 million residential, commercial and industrial customers across Australia.

We are committed to decarbonisation and leading the transition from natural gas to renewable gas. We have invested in Hydrogen Park South Australia (HyP SA), which is already delivering an up to 5% renewable gas blend to almost 4,000 homes. We have similar facilities under development in Queensland and Victoria.¹ We are also actively looking at investing in further projects to build on the scale and learnings from these initial projects.

Infrastructure plays a key role in South Australia's economy and in supporting the wellbeing of all South Australians. It can unlock higher productivity and economic growth, improve wellbeing and social inclusion, and underpin the resilience of the economy and our society. Infrastructure will also play a key role in enabling the shift to net zero emissions. Importantly, infrastructure plays these roles over several time horizons. In the near, medium and long term. We respectfully submit that Infrastructure SA's 20-year strategy should respond to these time horizons while also addressing the role of government, industry and end users in the planning and commissioning of new infrastructure.

The role of gas infrastructure today

AGIG's infrastructure plays a vital role today in delivering energy needed by our customers. We delivered 30,195 TJ of energy to more than 474,000 South Australian households, businesses and industrial facilities in 2022, and are expecting further growth in natural gas demand. South Australia has world class gas infrastructure that has been developed over multiple decades. Upgrades to polyethylene networks through our mains replacement program are due to be completed in 2026. These upgrades have increased safety, reduced leaks and importantly, future proofed the network by enabling it to deliver hydrogen safely and reliably, in addition to natural gas and biomethane.

Recent analysis demonstrates the important role gas networks play in delivering energy sector resilience.² The use of gas alleviates pressure on electricity networks at times of peak demand. In

¹ See: <https://www.agig.com.au/renewable-gas>

² Boston Consulting Group (BCG), The role of gas infrastructure in Australia's energy transition (June 2023) (ROGIAET Report) (June 2023)). See: <https://www.agig.com.au/-/media/files/agig/annual-reports/bcg-reports/20230814-ROGIAET-summaryarticle.pdf>

winter, peak gas and electricity demand coincide, with increased security and reliability risks in a solely fully electrified system. Being underground, gas networks are also more resilient to extreme weather events, which are anticipated to increase in severity and frequency as global temperatures rise.

Infrastructure South Australia's 20-year strategy should seek to maintain and improve the ability of the energy system as a whole to deliver the energy requirements of all South Australians as we transition to net zero emissions.

The role of gas networks in achieving net zero emissions

We believe our networks can also play a key role into the future and therefore welcome the focus on how South Australia "...can maximise the value of the State's existing assets". By recognising the value of existing infrastructure, we can deliver a lower cost transition to net zero emissions by delivering renewable gases such as renewable hydrogen, and biomethane.

A recent report from the Australian Hydrogen Centre (AHC) found that South Australia's existing gas networks can deliver a lower cost pathway to net zero emissions for South Australia than a strategy based on electrification alone. The Report also identifies options for industries which cannot electrify. Our South Australian network will be fully hydrogen ready by 2026, and therefore will represent a viable and low-cost option for delivering zero emissions energy to households and businesses into the future.

HyP SA is demonstrating the role of renewable hydrogen in the transition to net zero emissions by supplying a 5% blend of hydrogen to almost 4,000 homes in Mitchell Park. HyP SA has further demonstrated how renewable hydrogen production can help support the electricity sector. HyP SA draws renewable power from the grid at times of low demand, providing an alternative to curtailments for renewable generators and improving the economics of renewable generation. It demonstrates a potential pathway to maximise the synergies of the electricity and gas networks, by converting renewable electricity to renewable gas that can be stored and used in the energy mix at a later time. This process not only maximises our generation capacity, but also improves the security and resilience of the energy system overall.

Biomethane also offers an easy, "drop-in" solution for South Australia's renewable energy needs and can replace natural gas today. The South Australian Green Paper on the Energy Transition acknowledged that there is potential for 50% of domestic gas demand (30 PJ p.a.) to be replaced by biomethane. We understand that Bioenergy Australia is updating its national roadmap, which identified an initial 244 PJ p.a. of bioenergy potential in 2021. As more information on potential feedstocks become available, this potential is likely to increase.

The policies and support of the South Australian Government have enabled HyP SA to deliver these benefits. To progress the development of a renewable gas industry for the State, existing policy frameworks need to be strengthened to encourage a two-sided market, supporting both the supply and demand of renewable gas through the introduction of a Renewable Gas Target. In addition to incentives for the production and use of renewable gas, we need to start planning for facilitating the transition to 100% hydrogen were appropriate through a mandate for hydrogen ready appliances.

With existing distribution network investments already made, we need a plan for hydrogen backbone infrastructure for the state to link hydrogen hubs with markets. This will position the state as an 'ESG Capital' of Australia which will attract and retain large industry by providing the energy they need to meet safeguard targets.

The gas network will continue to provide resilience for the energy sector now and into the future

Whilst the pathway to net zero emissions is emerging, what is clear is that the strong need for safe, reliable and secure infrastructure to deliver energy to the community. South Australia has a world class gas network in place ready to deliver this renewable future.

Detailed responses to several of the consultation questions are included in Attachment A. We would welcome the opportunity to further discuss our submission. Please contact Ms. Jenny Thai, Senior Policy Advisor, at [REDACTED] if you wish to discuss the submission in further detail.

Yours sincerely,



Craig de Laine
Chief Executive Officer

Attachment A – Responses to the consultation questions

5.3 Energy transmission

Consultation Question 4 – How do we realise the opportunities and mitigate risks with transforming our transmission and distribution infrastructure for the future?

By making use of the existing gas distribution network, renewable gases can present a significant opportunity to maximise the value of existing assets and lower the overall costs in the transition to net zero emissions. They also represent a prudent means of addressing many of the risks associated with the transition.

Renewable gas benefits include the potential to:

- Deliver a significant source of additional energy with an estimated hydrogen production of 35 PJ p.a.³, and approximately 30 PJ p.a. of biomethane⁴ in South Australia, helping to alleviate security of supply concerns at an important time for the state;
- Contribute to emissions reduction targets with an estimated combined 5.2 Mt CO₂-e of emissions savings by 2050⁵;
- Maintain energy security and choice for the 474,000 customers who use natural gas today;
- Unlock energy system synergies by using off-peak renewable electricity to make renewable hydrogen, providing a long-term energy storage option and grid-stability support; and
- Underpin economic growth and job creation by securing for South Australia an estimated 2,200 construction jobs and 875 ongoing jobs by 2050.⁶

We observe that significant supply chain and investment resources will be required to meet South Australia's renewable generation targets. Renewable gases can play a complementary role in meeting South Australia's decarbonisation ambitions.

In particular, we note that the existing gas network mitigates reliability risks in the electricity sector and the transition to net zero emissions. Natural gas plays an important role in alleviating pressure on electricity networks at times of peak demand. In winter, peak gas and electricity demand coincide. The reliability of gas supply is also very high, with customers experiencing an unplanned outage once every 66 years⁷ on average.

South Australia has a winter-peaking pattern driven by the increased need for heat in colder periods of the year. Figure 1 below illustrates how South Australia's electricity and winter peaks coincide.

³ Australian Hydrogen Centre, *100% Hydrogen Distribution Networks South Australia Feasibility Study*. See: <https://auth-agig.australiangasnetworks.com.au/-/media/files/agig/Australian%20Hydrogen%20Centre/AHC-100-Hydrogen-Distribution-Networks-South-Australia-Feasibility-Study.pdf>

⁴ See Australian Biomass for Bioenergy Assessment Project - <https://arena.gov.au/projects/australian-biomass-for-bioenergy-assessment-project/>

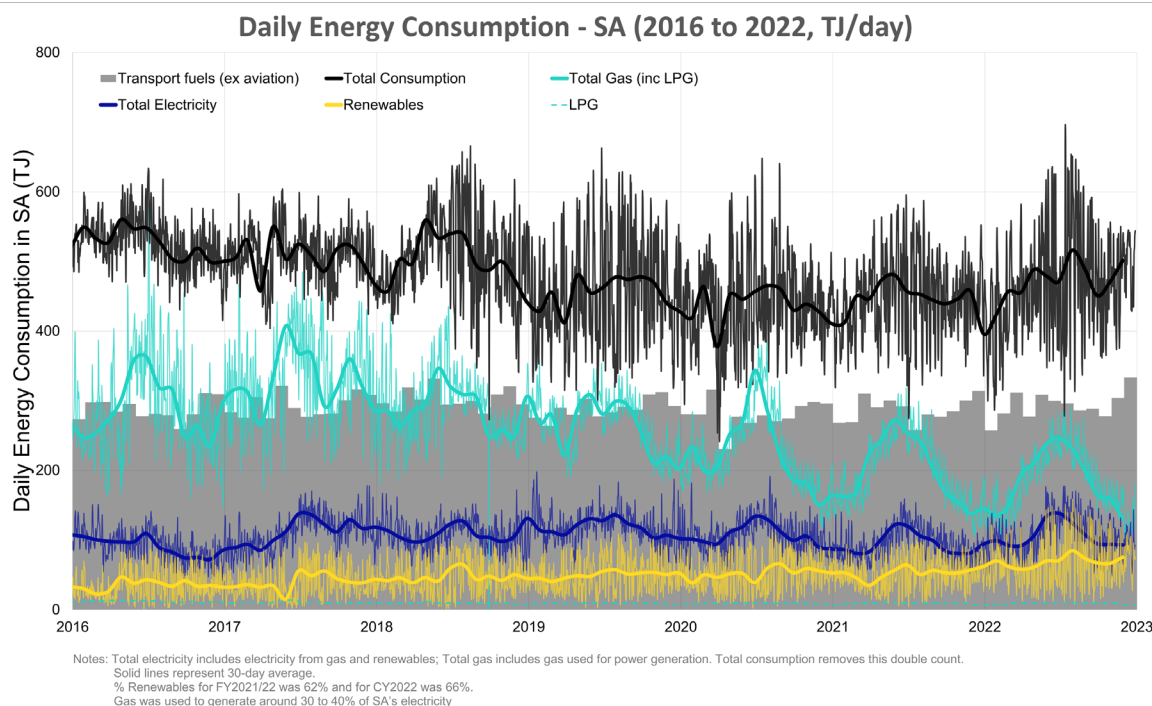
⁵ Australian Hydrogen Centre, *100% Hydrogen Distribution Networks South Australia Feasibility Study*.

⁶ Australian Hydrogen Centre, *100% Hydrogen Distribution Networks South Australia Feasibility Study*.

⁷ AER, Gas network performance report 2022.

See: <https://www.aer.gov.au/documents/aer-2022-gas-network-performance-report-december-2022>

Figure 1 Daily Energy Consumption in SA - Electricity and gas demand



Source: Energy Networks Australia, August 2023

Delivering the benefits available through natural gas today and renewable gas in the future (both opportunities and risk mitigation) will only be possible with a network of enabling infrastructure, much of which already exists in the form of the gas distribution network. As a result of our safety-driven mains replacement program which replaces existing pipes with hydrogen-compatible polyethylene, South Australia has a world-class gas distribution system that is ready to transport 100% renewable gases today.

To deliver renewable gases to market, clear investment signals are required for producers, users, and infrastructure providers. South Australia's Hydrogen Jobs Plan is helping to create market certainty. AGIG encourages Infrastructure SA to build on that certainty by supporting policy reforms which incentivise demand and lower the production costs of initial projects. With the right market settings renewable gas projects like HyP SA will move on from the demonstration phase to larger scale projects.

Further, with existing distribution network investments already made, we need a plan for hydrogen backbone infrastructure for the state to link hydrogen hubs with markets. This will position the state as an 'ESG Capital' of Australia which will attract and retain large industry by providing the energy they need to meet safeguard targets.

5.5 Resource exports

Consultation question 6 – What investments could unlock the value of South Australia's resources?

Renewable gases (including biomethane, hydrogen and derived products) represent a significant opportunity for export-led economic growth in South Australia.

We note that the South Australian Energy Green Paper identifies 30 PJ of potential biomethane volumes in South Australia. We therefore encourage the South Australian Government to undertake a more detailed study of biomethane and biomethane potential in the state, with a view to using this to decarbonise the existing distribution network.

While governments and industry are working to develop Australia's hydrogen industry, there is more to do to enable the start of an export industry or for the complete substitution of natural gas in energy intensive industrial production (e.g. steel). Consequently, continued targeted support for initial production of renewable gases such as renewable hydrogen and biomethane will continue to help to unlock initial investments. This could be in the form of government funding through initiatives such as the Hydrogen Jobs Plan⁸, or targeted support, such as electricity network charge exemptions for producers of green hydrogen⁹. These initiatives should be complemented by demand-side incentives, such as a Renewable Gas Target in the form of Government support for further projects, followed by a market-funded scheme in the medium to longer term.

Hydrogen use and blending early in the industry's life cycle provide an opportunity to build scale and experience ahead of more widespread and large scale deployment for hard to abate industry and exports. Hydrogen blending can reduce volume risks for hydrogen producers by acting as a reserve off-taker (as is being actively considered by the UK Government).¹⁰ The domestic market is available now to build scale and capability for renewable gases and provides the necessary stepping stone to decarbonise other sectors like export.

6.2 Affordable housing

Consultation question 8 - What can be done to support sufficient, fit-for-purpose housing to improve housing affordability?

As an energy delivery system, gas is efficient, reliable and safe. Its characteristics make it a preferred option for many consumers – residential and industrial alike. Moreover, the current dual fuel supply provides valuable system stability, ensuring an energy delivery system remains if another goes offline. Gas also steps up to fill gaps in generation capacity as required, helping to ensure supply is always available to meet demand.

It is therefore important that building and appliance rating schemes applied in South Australia recognise the energy efficiency and emissions reduction opportunities are available through gas appliances and through renewable gas usage. We note that our peers in the industry are also looking at ways to incentivise more efficient gas appliances to help reduce household energy costs.

It should be noted that energy prices (electricity and gas) globally are generally set by market conditions. Consequently, significant volatility is possible. Markets will continue to set prices. Enabling choice and competition across different sources of energy can help lower costs for households and the transition overall.

8. A decarbonised, sustainable economy

Consultation question 15 - What infrastructure investments will support industries to transition to a global net zero future?

Renewable gases including hydrogen and biomethane have significant potential to support South Australia in the transition to net zero emissions. Renewable gases have potential to be used in a wide range of use cases including:

- Hard-to-abate industry including high temperature heat and feedstock uses of renewable gases;
- Smaller scale use in homes and businesses;
- Electricity grid services; and
- Transport and mobility.

⁸ See: <https://www.hydrogen.sa.gov.au/projects/hydrogen-jobs-plan>

⁹ See: <https://www.energy.nsw.gov.au/business-and-industry/programs-grants-and-schemes/green-hydrogen-electricity-concessions>

¹⁰ See: <https://www.gov.uk/government/consultations/hydrogen-blending-into-gb-gas-distribution-networks>

Infrastructure investments will be required to facilitate conversion to renewable gas. Transportation (transmission pipelines and road based) in particular will require significant investment. While limited work has been done to estimate costs in Australia, research out of the United States paints an interesting picture. The Department of Energy estimates that by the 2030s, over half of the investment required in clean hydrogen will be in mid-stream (transportation and storage) and end-use infrastructure.

While significant investment is likely to be required, costs can be minimised by providing stability and by maximising the value of existing infrastructure where it can be repurposed. This can accelerate the energy transition by avoiding the need to construct new infrastructure.

We note that the SA distribution network serves a high proportion of industrial customers (112 industrial) making up around 46% of demand in 2020.¹¹ Renewable gases present a significant opportunity to address the needs of the industrial sector. In particular, large and hard-to-abate industrial businesses which have no option but to use gas for high temperature heat or as a feedstock can benefit from renewable gas.

Industrial and smaller business customers currently rely on the economies of scale of the distribution network used by a variety of end users (including residential customers) to access natural gas reliably, safely, and at a low cost. The same principles will apply for renewable gases. The diverse users on the network share costs to make the production and transportation of natural gas lowest costs, whilst giving large industrial customers access to economies of scale from the network. Therefore, this requires careful policy that recognises the need for gas infrastructure today. The policy also needs to recognise the needs of customers, investors and the economy more broadly for stability and reliability in the energy this infrastructure provides. Such policy will also importantly recognise the benefits of using and repurposing existing infrastructure for renewable gases into the future.

As demonstrated in the reports of the Australian Hydrogen Centre, our South Australian network has significant potential to be repurposed for delivering renewable hydrogen to customers. The reports outline feasible pathways to 10% blending across our South Australian distribution network by 2030 and 100% hydrogen in 2050. Biomethane can already be transported via the network today and used in end-user appliances as a like-for-like replacement for natural gas.

The network is due to be 100% hydrogen ready (via replacement of cast iron mains with plastic pipes) by 2026 with the vast majority of the network already hydrogen ready. Therefore, the costs of repurposing the network for renewable gas are minimal. Key to the potential of renewable gas is maintaining the network and its customer base.

8.2 Decarbonised energy system

Consultation question 16 – How do we maintain an affordable, reliable and secure energy system through the energy transition?

South Australia's gas transmission and distribution infrastructure serves a diverse customer base geographically spread across the city, suburbs and regions. These economies of scale and network effects mean we can deliver gas safely and reliably to all our customers at least cost.

It is important to highlight the benefits that gas brings for homes and businesses. Gas continues to be a reliable energy source. As highlighted by the Australian Energy Regulator, "*Gas NSPs are inherently reliable. This is in part because:*

- *By mainly being underground, pipelines are more protected from adverse environmental conditions than, for example, electricity networks.*

¹¹ Australian Hydrogen Centre, *100% Hydrogen Distribution Networks South Australia Feasibility Study*.

- *Gas NSPs can carry out works without causing supply outages to customers.”¹²*

The AER observed that, *"Due to these factors, customers experience network outages infrequently. For example:*

- *in 2021 there were on average 0.015 outages per customer. This is equivalent to a customer experiencing an outage approximately once every 66 years on average.*
- *alongside the infrequent nature of network outages, they also impact relatively few customers at once.”*

For comparison, the AER reported that across the National Electricity Market in 2022, an electricity distribution customer experienced an average of 1 supply outage at a duration of 120 minutes.¹³

As described in our response to consultation question 4 above, the electricity and gas sectors work together to create a resilient and reliable system. Limiting customers' energy choices today is likely to result in, at best, higher prices tomorrow for those that continue to use infrastructure, particularly for industry and hard to abate industrial sectors.

More importantly it will limit the availability and affordability of renewable gas in the future. For example, hard-to-abate industry is reliant on a shared network of infrastructure including transmission and distribution pipes. Limiting the diversity of the customer base using the network will increase the costs of the transition to renewable gas for those customers with no alternative.

We consider existing policy frameworks could be strengthened to encourage a two-sided market, supporting both the supply and demand of renewable gas. We recommend the adoption of a Renewable Gas Target in the form of Government support for further projects (as mentioned in responses to Question 6), followed by a market-funded scheme in the medium to longer term.

8.3 Transitioning transport

Consultation question 17 - What are the most significant challenges for decarbonising transport and how do we address them?

Transport is a hydrogen end use with widely dispersed infrastructure. It will require hydrogen to be available at relatively low volumes initially and ultimately delivered through the network direct to fuel stations.

Incentivising the production of hydrogen in many locations which can serve multiple sectors in differing ways (gas network blending, transport, small scale electricity firming, backup and temporary off grid electricity generation, off-highway mobile plant etc.) will lower the barriers to transition multiple hard to abate sectors across the economy to net zero emissions. Non-grid supplied power generation alternatives like hydrogen can also support transport electrification infrastructure challenges like the deployment of charging stations to remote areas.

A two-year hydrogen bus trial commenced in South Australia in August 2023. The trial Hydrogen Fuel Cell Buses are powered by green hydrogen generated at our HyP SA facility.

Our HyP Murray Valley, in northern Victoria, also demonstrates how renewable gases can support transport decarbonisation. Located on the Hume Highway, it is well positioned to supply any future renewable hydrogen refuelling network along Australia's most significant transport route between Melbourne and Sydney. Initial demand for the renewable hydrogen produced in the region will come from natural gas blending at volumes of up to 10% for supply into the existing gas distribution networks across Albury and Wodonga, delivering a lower emissions blended gas to more than 40,000 business and residential customers. 20 industrial gas users will also receive the renewable gas blend.

¹² AER, Gas network performance report 2022.

See: <https://www.aer.gov.au/documents/aer-2022-gas-network-performance-report-december-2022>

The project demonstrates the multiple uses and offtakes required to deliver a successful hydrogen project.

8.4 A circular economy

Consultation question 18 - What action is needed to achieve a circular economy in South Australia?

The production and use of biomethane to support and eventually replace existing natural gas use supports a circular economy. Where waste and pollution are eliminated, resources are circulated at their highest value, and nature is regenerated. By utilising locally produced feedstock and waste, biomethane enhances waste management and disposal practices and supports South Australia's wider decarbonisation goals.

Biomethane offers an exciting opportunity for South Australia to utilise agricultural waste for the production of renewable gases. It is a "drop-in" fuel which can replace natural gas like-for-like, and will open up opportunities for producers of feedstock and waste. Biomethane also allows for the additional capture of fugitive emissions, potentially increasing emissions reduction benefits.

Bioenergy Australia's 2021 Roadmap¹⁴ noted significant national biomethane potential of 244 PJ p.a., and potentially 24Mt CO₂-e in emissions reductions, and the opportunity to create 26,200 jobs nationally. We understand that Bioenergy Australia is currently updating their roadmap, and will shortly announce that their estimate of recoverable potential has risen to approximately 350 PJ p.a. nationally.

9.1 Planned resilience

Consultation question 20 – How do we better account for the impacts of climate change in our infrastructure, to support improved resilience?

Gas pipelines, whether delivering natural gas today or renewable gas in the future, are inherently very reliable. Outages are rare and many customers value the reliability above other benefits of natural gas. This illustrates the role gas networks play in a dual fuel system.

Unplanned System Average Interruption Duration Index (SAIDI) (defined as the average unplanned outage duration for every customer served per 1000 customers) for AGN averaged 3,048 minutes from 2018 to 2021. Unplanned System Average Interruption Frequency Index (SAIFI) (defined as the average number of interruptions that a customer would experience on the network per 1000 customers) averaged 23.2 over the same period.

While unplanned outage durations for electricity networks average 100+ minutes per customer each year gas distribution networks average is approximately 3 minutes per customer. Similarly, outages are on average more than (in some cases far more than) 100 times more frequent on electricity networks relative to gas distribution networks.

The impacts of climate change are unlikely to have significant effects on the resilience and reliability of our networks. The network is for the most part underground and therefore less impacted by weather events compared to overground electricity networks.

¹⁴ See Australia's Bioenergy Roadmap - <https://arena.gov.au/assets/2021/11/australia-bioenergy-roadmap-report.pdf>

Consultation question 21 – What are the critical resilience issues that South Australia needs to address?

As outlined above, a key component of South Australia’s energy system’s current resilience is the diversity of energy sources available to customers. The current dual fuel supply provides valuable system stability, ensuring an energy delivery system remains if another goes down, and enables gas to step up and fill gaps in generation capacity to ensure the lights stay on.

Consultation question 23 - How can government and industry work together to support the supply of skilled labour needed to deliver a transparent infrastructure pipeline?

We suggest that a planned incremental scale-up of a hydrogen industry that delivers long-term certainty and improves prospects of achieving financial close can support the development of a sustainable industry. It will also enable a robust workforce to be developed and trained. A whole of industry focus may help mitigate the risks of boom/bust cycles that lead to shortages, increased costs and increased market volatility.

To this end, we are already partnering closely with educational institutes such as TAFE South Australia to support the workforce to access upskilling and additional training specific to the renewable gas industry. TAFE SA’s Tonsley campus is located in the same district as our HyP SA plant in the Tonsley Innovation District.



20 November 2023

Attention- Strategy Team, Infrastructure SA
GPO Box 2343
Adelaide SA 5001

South Australia's next 20-Year State Infrastructure Strategy

To Whom it May Concern,

The Australian Institute of Landscape Architects, South Australian Chapter (AILA SA) extends its appreciation to Infrastructure SA to provide feedback on South Australia's next 20-Year State Infrastructure Strategy.

About AILA South Australia

AILA SA leads a dynamic and respected profession, creating great places to support healthy communities and a sustainable planet.

We work together to create healthy communities, connected urban green infrastructure, and liveable, sustainable cities and regions. Our 2,900+ members are driven by AILA's Strategic [Plan](#) core values of Connection to Country and Climate Change, and are committed to creating **'A greener, healthier, inclusive and climate resilient South Australia'** which is further embedded in our advocacy approach.

The work of South Australian landscape architects is recognised for creating liveable cities, healthy active spaces, and sustainable design outcomes for everyone. Our 200+ South Australian members have helped shape many infrastructure projects across the State, creating the vibrant community spaces for all.

AILA advocates leading positions on issues of concern to our cities, suburbs and regions on matters regarding landscape architecture. We prefer to work alongside government to improve the design, planning and management of the natural and built environment. We support positive policies, strategies, and projects that achieve our values and advocacy to create greener, healthier, and climate resilient places for all.

Feedback on South Australia's next 20-Year State Infrastructure Strategy

The importance of this Strategy cannot be understated. AILA SA supports of the overarching vision and acknowledges the importance of this review for preparing its next Strategy.

We note within the forward that South Australia's infrastructure needs have evolved due to the 'COVID-19 pandemic, the transition to net zero and increasing digitalisation'. We also note there are several other areas for consideration which have clear implications in the development of our cities and future infrastructure needs, including:

- equitable and safe access to quality, local, and green parks and open spaces
- equipping our cities, towns, and regions to be climate resilient in a warming, dry climate through the design and planning of blue and green infrastructure
- supporting more people walking and cycling through the planning and integration of active transport
- authentic and effective reconciliation with First Nations people



With these areas in mind, our recommendations for Infrastructure SA are:

- **Creation of a new, single, government agency to coordinate the planning, design, and delivery of South Australia's green infrastructure to accelerate meeting South Australia's pathway to Net - Zero Emissions**
- **Improving South Australia's connectivity by creating better streets for people**
- **Authentic, genuine and meaningful partnerships with First Nations**

Detail under each recommendation is provided below for consideration.

1. Creation of a new, single, government agency to coordinate the planning, design, and delivery of South Australia's green infrastructure to accelerate meeting South Australia's pathway to Net Zero Emissions

We recommend the creation of a **New Green Infrastructure Office** with the responsibility to plan, manage, and monitor the design of South Australia's green spaces. It will have oversight of green aspects of all state-funded infrastructure, health, and education projects to ensure greening targets are initiated delivered, managed, measured, reported and protected over time.

The new agency will positively work with infrastructure, health and education departments to better shape greening outcomes and provide the following benefits

1.1 New State Green Infrastructure Policy

There is a lack of integration across Government department strategies including planning, transport, infrastructure, climate change, and greening. A new *State Green Infrastructure Policy* represents an opportunity respond and provide a concise, aligned and strategically integrated plan

Greater policy alignment and government investment and partnership opportunities with local government could enable greater and high-quality development opportunities and accommodate for growth within existing corridors and precinct. This would also enable greater density in the inner suburbs - small-scale, low multi storey development (i.e., three-storey apartments), an effective way to increase housing supply and allow space on small blocks for green infrastructure and WSUD.

It will also assist with the new focus, as outlined in the State Government's Greater Adelaide Regional Plan Discussion Paper, for the peri-urban/outer 'spines' for the anticipated growth over the next 15-30 years.

A cohesive green infrastructure policy developed and owned by the new Green Infrastructure Office with agreed definitions, targets and reporting, supporting Green Adelaide and South Australia's Climate Change Action Plan would embed green infrastructure as an essential component of greener, wilder, healthier, and climate resilient places for all.

As reference AILA SA defines green infrastructure (GI) as '...the strategically planned networks of natural and semi-natural areas in urban and regional settlements that provide environmental, social and economic benefits to society... GI strategy aligns with an ecosystems management approach to provide ecosystem services that can be measured, evaluated and deployed at a landscape scale; transcending private and public land, geographic and municipal boundaries.' (Australian Institute of Landscape Architecture (AILA), 2019. Green Infrastructure. Position Statement).



This is a new approach, which could elevate South Australia's infrastructure for the next 30 years as greener, more productive and respond to the climate challenges as outlined and addressed in the State's Climate Change Action Plan

1.2 Defined, agreed, and measurable targets

South Australia's leadership in climate change and mitigation must ensure all projects pull their weight - in many instances there is confusion, value management and only passing acknowledgement of state greening targets.

We recommend a key focus of the Strategy should be how the interrelationship between government agencies, local government and private development align to deliver improved outcomes for all and therefore support 'living locally' principle within the Strategy.

Liveability and quality of urban environments correlate to the health, wellbeing and socio-economic prosperity of individuals and communities. Good design outcomes should continue to be an integral driver shaping the future of Greater Adelaide, and precincts and neighbourhoods should be designed holistically, incorporating services, amenities, accessible open and recreational space, civic, residential and commercial areas. This objective – of living locally – requires an integrated planning approach for infrastructure.

Our analysis suggests the following targets are considered, or at least investigated, for inclusion in measuring the success of the Strategy (in no particular order):

- Minimum tree canopy cover targets - currently 20% in the State's 30 Year Plan for Greater Adelaide
- Minimum tree canopy retention targets
- Minimum targets for new areas of quality green open space
- Minimum targets for stormwater retention, reuse and treatment
- Minimum targets for biodiversity and habitat increase
- All new State Government-funded capital projects must include these targets, form part of their project briefs, and be mandated for delivery
- Builds on the recently announced 'Green Infrastructure Commitment' by the Department for Infrastructure and Transport.

We are not recommending the Strategy incorporates every measure and target across government, more alignment of policies and strategies where possible.

2. Improving South Australia's connectivity by creating better streets for people.

Our members have expressed a strong concern at the lack of public transport integration in the Strategy, noting the Discussion Paper is basically silent on integrated and active transport options.

We remain concerned that active transport connectivity and mobility need to form a key outcome in the State's future infrastructure funding strategy.

We recommend active transport connectivity and mobility includes:

- creating funded and integrated active transport infrastructure,
- prioritising proximity and connection to existing and planned amenities, open space and services, and



- ensuring adequate public transport options are accessible to all development precincts and projects.

2.1 Create a new Active Transport Plan

We recommend the creation of an integrated active transport plan with a targeted annual investment, that sets agreed and measurable targets across South Australia, to provide connected, easy to access, and easy to use walking and cycling alternatives to private vehicle use. This will build on the current State Cycling Plan and Walking Strategy, which are not coordinated and lack clear, cohesive, and agreed strategic and local outcomes.

The active transport plan is to be used as a key input to all state-funded infrastructure, health, and education projects to ensure walking and cycling connectivity is integrated and aligned with more effective public transport.

2.2 Ensure integrated streets

For all state-funded infrastructure, health, and education projects, ensure all project planning and scoping of projects creates better streets for people, habitat and biodiversity, as well as their new and existing communities.

This must be more than simply ‘making good’ - it means integrating active transport, greening targets, water sensitive urban design, habitat, biodiversity, and develop projects to become good neighbours. Moving beyond minimum requirements is the aim - ensuring universally accessible and enjoyable journeys for all are achieved.

For example, using the Transport for London ‘Pedestrian Comfort Level Guidance’ for all state-funded infrastructure, health, and education projects places pedestrian comfort at the centre of decision making, to encourage greater walking across our cities and regions.

3. Authentic, genuine and meaningful partnerships with First Nations

The development of a new and collaborative design approach to First Nations involvement on all state-funded infrastructure, health, and education projects. This must be a process that is funded and acknowledges the difficulty in making time to meaningfully engage with First Nations.

We recommend that First Nations form an underlying part of **South Australia’s next 20-Year State Infrastructure Strategy** using a Connecting with Country approach including:

- developing genuine and meaningful partnerships to promote positive outcomes, ensuring that future developments are inclusive and respectful of the land, communities, and cultural history, and relevance within our green publicly accessible open spaces.
- an agreed approach to cultural mapping to underpin the Strategy to ensure the development of growth areas are culturally sensitive, provide environmentally responsible outcomes, and preserve natural systems.
- an authentic and inclusive acknowledgement of traditional owners throughout the Strategy, advancing respectful and authentic reconciliation through the design of our places, links to the cities and connection to the regions.



We would welcome the opportunity to discuss our feedback or provide more detailed commentary to further explain the feedback above.

Thank you again for the opportunity to be involved with this consultation process.

Yours sincerely,



Dr Janelle Arbon, Fellow (AILA), Registered Landscape Architect
President, AILA South Australian Chapter

13 November 2023

Infrastructure SA,
GPO Box 2343,
Adelaide SA 5001

Via Email: infrastructure@sa.gov.au

Attention: Strategy Team, Infrastructure SA

South Australia's 20-Year State Infrastructure Strategy Discussion Paper – Submission from Mobile Carriers Forum

The Mobile Carriers Forum (MCF) is a division of the Australian Mobile Telecommunications Association (AMTA). AMTA is the peak industry body representing Australia's mobile telecommunications industry. MCF members include Telstra, Optus and TPG Telecom.

We understand that Infrastructure SA is now preparing the next 20-Year State Infrastructure Strategy to look at state-wide infrastructure needs to 2045, with a focus on infrastructure planning and investments that drive a growing economy aligned to the State's economic vision of a smart, sustainable and inclusive economy. AMTA welcomes the opportunity to provide this submission on behalf of the MCF in response to the Strategy Discussion Paper.

AMTA welcomes inclusion of section 5.4 on page 17 that focuses on 'Digital connectivity'. It notes that Digital connectivity is key to productivity improvements and is a key enabler for the Government of South Australia's vision for South Australia to be a smart economy. It notes that 'Digital connectivity refers to the application of technology to physical infrastructure, which facilitates the connection of assets and people to the internet. It encompasses... telecommunications infrastructure, such as submarine cables and fibre transmission, and access networks, such as fixed line, mobile and satellite'.

AMTA encourages Infrastructure SA to highlight these enabling benefits and the need for support and government investment in mobile network infrastructure in the Strategy.



Mobile networks are an ‘enabling technology’ across many sectors of the economy as evidenced in AMTA’s publication “[5G Unleashed: Realising the potential of the next generation of mobile technology](#)’, prepared by Deloitte Access Economics. The report was commissioned to examine the economic impact of adoption levels of 5G-enabled technologies and innovations, and the policy and regulatory principles required to support accelerated adoption in other industries and sectors. The report’s economic modelling estimates 5G will increase Australia’s GDP by \$67 billion by 2030 based on the current trajectory for adoption, however an additional \$27 billion can be realised by maintaining Australia’s global leadership position through accelerated adoption – a 40% uplift in economic benefit over nine years.

The Key points for government in the report are:

- Australia is a global leader in 5G mobile but needs to accelerate uptake and investment to maintain its lead on other countries.
- If Australia can maintain its current position amongst global leaders, this creates an extra \$27 billion in economic benefits to GDP by 2030 by lifting business productivity.
- Key 5G policy priorities include driving adoption and facilitating private sector investment through spectrum and infrastructure policy, especially for regional areas.

In the Discussion Paper under section 5.4, ‘Consultation question 5’ asks ‘What are the barriers to increased adoption of digital technology to improve productivity?’

Specifically in response to the question of barriers, Deloitte’s report ‘[5G Unleashed: Realising the potential of the next generation of mobile technology](#)’, found that ‘while Australia has been a world leader in mobile telecommunications for decades and is currently ranked 3rd globally, it is at risk of falling to 9th by 2025 due to lack of business readiness for change and a policy regime that needs to be recharged’. Deloitte’s analysis observed that Australian businesses were found to be slow when it comes to readiness for adoption of 5G despite 62% of businesses leaders across four sectors agreeing 5G will accelerate the growth of their business, with 59% saying they have no strategy to realise 5G and nearly 1 in 3 (30%) having no plans to implement 5G. Section 3.1. of the Deloitte report ‘Driving national adoption of 5G’ highlights ‘Key actions’ including”

- Encourage greater awareness of 5G benefits to Australian businesses and the economy.
- All levels of government should assess opportunities for the early adoption of 5G for Government Service Delivery
- Ensure procurement policies for new infrastructure funding requiring considering the use of 5G applications.
- Support 5G education and skills development for both technology workforce and business leaders

The Deloitte report also notes that a barrier to adoption is the availability of Infrastructure and identifies the need for Government to consider incentives to encourage private investment in 5G services such as new funding arrangements or tax incentives to support greater 5G coverage into regional and remote areas. AMTA is encouraged that the State Government recently announced one of the biggest investments in regional mobile phone coverage in the state's history – providing \$5.5m to boost connectivity in the Limestone Coast.

In making the announcement¹, Premier Peter Malinauskas explained that the new towers would increase mobile coverage, wireless broadband, and data-sharing capabilities, and would also provide additional Triple Zero connectivity for users of other networks in emergency situations. Furthermore, this investment will enable more efficient communication and monitoring in the forestry, dairy, agricultural, winery, and wool industries, provide better services to large numbers of seasonal tourists, improve access to remote health services, and enhance communications to vital emergency services.

Specifically in relation to Infrastructure deployment (like that on the Limestone Coast), the report identifies that there is a need to:

- Coordinate clear and consistent policy across all communications-related issues at Federal, State and Territory level.
- Facilitate reform opportunities outlined in [AMTA's 5G Infrastructure Readiness Assessment report at the state & territory level](#). Specifically, AMTA notes the findings in the **South Australia** Chapter of the Readiness Assessment.
- Government to consider incentives to encourage private investment in 5G services such as new funding arrangements or tax incentives to support greater 5G coverage into regional and remote areas.
- Government should consult with industry on the need for further de-regulation with a view to removing out of date and inefficient regulatory requirements across the sector and seek to enable greater co-regulation²

AMTA encourages Infrastructure SA to highlight the benefits of Government investment in mobile connectivity (including 'black spots' and 'grey spots') to make access to infrastructure fairer, so the benefits from this enabling technology can be realised.

We note that in section 6 of the Discussion Paper there is a focus on the infrastructure needs of . Liveable and well-planned places, and the Consultation question 7 asks 'How can South Australia better coordinate infrastructure investment to support a growing population?'

¹ 'Historic' mobile service boost SE Voice 31 October 2023

² 5G Unleashed: Realising the potential of the next generation of mobile technology, Deloitte Access Economics, Australian Mobile Telecommunications Association 2022

In response, we note that mobile telecommunications is a critical enabling technology in rapidly growing suburban communities, a point that has recently been recognised by Commonwealth and State and Territory Governments including the South Australian Government. AMTA welcomed the recent Planning Ministers' Meeting 2023 Communique that has identified this matter as a priority. The Communique includes the following:

Telecommunications planning

Planning Ministers recognised the need for a coherent approach for prioritising and accelerating planning and approvals for communications infrastructure, especially in rapidly growing suburban communities.³

AMTA encourages Infrastructure SA to include consideration of mobile telecommunications in its plan alongside other utilities that are often considered to be 'essential' in growth areas. More than ever, all forms of communications networks including mobile networks are viewed as essential, particularly when many Australians continue to work remotely following the covid-19 pandemic. Networks including 4G and 5G infrastructure and services offer opportunities including for South Australia's economy, consumers, utilities, for smart cities applications and carbon reduction.

Thank you for the opportunity to comment on the Discussion Paper. Should there be any questions or an opportunity for us to discuss AMTA's submission please do not hesitate to contact me on [REDACTED] or email [REDACTED]

Yours sincerely,

[REDACTED]

Matt Evans

Mobile Carriers Forum,
Australian Mobile Telecommunications Association

³ <https://minister.infrastructure.gov.au/c-king/communique/planning-ministers-meeting-2023-communique>

Submission on
South Australia's 20-Year State Infrastructure Strategy
– Discussion Paper feedback

Submission on South Australia's 20-Year State Infrastructure Strategy – Discussion Paper

The Australian Steel Institute (**ASI**) is pleased to make a submission on South Australia's 20-Year State Infrastructure Strategy – Discussion Paper.

Introduction

The ASI is the nation's peak body representing the entire steel supply chain, from the primary producers through to end users in building and construction, resources, heavy engineering and manufacturing.

Its membership base includes approximately 6,000 individuals that are associated with more than 500 corporate memberships and over 350 individual memberships.

A not-for-profit member based organisation, the ASI's activities extend to, and promote, advocacy and support, steel excellence, standards and compliance, training, events and publications. The ASI provides marketing and technical leadership to promote Australian-made steel as the preferred material to the resources, construction, and manufacturing industries, as well as policy advocacy to government.

The Australian Steel Industry

The Australian steel industry consists of four primary steel producers, supported by over 300 steel distribution and processing sites throughout the country and hundreds of manufacturing, fabrication and engineering companies.

Australia's primary steel producers and steel product manufacturers together form a strategically important value chain that has the capability to supply in excess of 90 per cent of the steel grades and qualities required in this country. If special categories such as very large diameter pipe, stainless steel, electrical steel, and tinplate are excluded, then the capability is significantly closer to 100 per cent.

Australia produces around 6 million tonnes of steel per annum across five major manufacturing locations, with approximately 74 percent produced via the more emissions-intensive method in the blast furnace - basic oxygen furnace (BF/BOF) and the remainder produced via the electric arc furnace (EAF) method.

It is important to note the economic and social contribution of the Australian steel industry. It employs over 110,000 people and generates \$29 billion in annual revenue, and it associated with a disproportionately large share of skilled jobs in regional and rural areas.

Australia has world leading manufacturing capability in many areas of steel product application. Some examples include wear resistant and ballistic plate steels for mining and defence applications, grinding media for mineral processing, strata control products for underground mining, wire rope for open cut mining, wheels, rail, and

sleepers for both mainline and heavy haul railway applications, strapping for load restraint, engineered bar and resultant products such as automotive springs and specialty fasteners, high pressure gas storage tanks, racking and shelving for automated warehouse solutions, highly durable coated steel water pipe for infrastructure, and a myriad of specialised components for building, construction and defence industry applications.

Similarly, the steel fabrication sector is well served by a wide range of domestic businesses, located in all regions of the country, each with an area of unique capability or specialisation. Steel fabrication is essential for manufacturing of bespoke construction products such as foundations, piling, columns, beams, girders, gantries, platforms, and towers. Areas of specialisation include wind turbine towers, transmission towers, storage tanks, chemical processing plant, boilers and pressure vessels, mining infrastructure refurbishment, mobile equipment for underground and surface mining, mobile cranes, bridges, armoured vehicles for Defence, naval and domestic ship building, rolling stock, truck bodies and trailer chassis. In those applications where demand is relatively consistent from year to year, local fabricators have invested heavily in state-of-the-art manufacturing technology and fully integrated design software that incorporates visualisation and 3D simulation capability.

Supporting the local steel industry thereby improving South Australia's economic growth

Steel is fundamental to a modern society.

Steel is the backbone of Australia's construction, infrastructure and manufacturing sectors and therefore can impact South Australia's economic growth. It is a vital and sustainable source of innovation, employment and capability in our cities and our regional communities.

It is used in the buildings in which we work, live and play and the transport infrastructure we use. Steel is also a vital component in the energy generation and transmission industries, in the extraction of minerals, oil and gas and in manufacturing and agriculture.

The steel industry is also a key enabler for South Australia's energy transition.

The steel industry has diversified supply chains from smaller, family-owned businesses through to large national, multinational companies and feeds into construction, manufacturing, mining, defence, and a wide range of high-value uses and in doing so supports thousands of jobs and contributes significantly to South Australia's economy.

The Australian steel supply chain starts from the Australian steel producers/mills to the steel distributors and manufacturers, fabricators and detailers, builders and constructors.

Recommendations:

Infrastructure SA should apply a weighting in favour of procurements providing local benefits to the areas in which relevant infrastructure is being constructed. Legislation should permit the declaration of project of strategic importance, which may specify (amongst other things) a local content requirement for locally/Australian milled steel and also locally fabricated/processed steel.

This should be in-line with the current processes in place with the Office of the Industry Advocate SA.

So as to facilitate investment decisions and limit skills and material constraints, Infrastructure SA should establish clearly identified pipelines of infrastructure to be developed and actively engage the local steel industry to ensure clear visibility of steel requirements for Infrastructure projects and timelines to ensure delivery on these projects.

The steel industry in the renewable energy transition

The steel industry is a key enabler for the Nation's renewable energy transition and associated legislated climate targets. Between now and 2030 it is estimated that at least 400,000 tonnes of fabricated steelwork will be required per annum to service over 23 GW of existing renewable energy generation projects across wind, solar, water and transmission infrastructure, as illustrated in this table:

Wind:

- It is estimated that each 1 MW generated by an onshore wind tower requires 124 tonnes of steel.
- Offshore wind increases generation scale and steel consumption further. Each 1 MW generated by an offshore wind tower requires 190 tonnes of steel.

Solar:

- The steel components include a foundation pile (normally a hot rolled channel or column), torque tube (octagonal, square or tubular hollow section), frames or Rails for PV panels and Brackets.
- Typically, about 45 tonnes of steel are required for each 1 MW of solar energy generated.

Water:

- Hydro projects require large diameter steel liner pipes, penstock, related fabrications, tunnel reinforcement, and foundations.
- It is estimated that each 1 MW of hydro power will require 161 tonnes of steel.

Transmission:

- Each 1000 kms of transmission line typically requires 2500 towers at 30 tonnes per tower.

Australia currently has limited local capability and has missed out on substantial economic value in recent years with renewable projects highly reliant on established overseas supply chains.

Some incremental local investments have recently been initiated but without further investment and government support this trend to predominantly overseas supply is set to continue.

The fabricated steelwork required for the renewable energy transition includes a mixture of components that are readily available in Australia and those that haven't been sourced locally for many years. The sheer scale of the demand and the

extended timeframe over which it is required mean that South Australia's energy transition provides a unique opportunity to develop advanced manufacturing capability in several areas of strategic importance for future energy security. These opportunities include but are not limited to:

- Onshore wind tower fabrication;
- Offshore wind tower fabrication;
- Production of large diameter tube suitable for manufacturing of torque tubes for solar cell tracking and support frame structures;
- High voltage transmission tower fabrication.

The local Australian steel producers, steel product manufacturers and fabricators have the crude steel supply and underpinning production capabilities to make these products, but largely lack the specialised large scale automated capacity that is typically required to produce cost efficiently. This capacity can readily be created in a relatively short time via targeted investment in dedicated plant and equipment. The key to driving the required capital investment is the existence of firm local participation targets for supply of renewable energy infrastructure, which are set at a level sufficiently high enough to ensure manufacturing economies of scale are achieved.

Recommendation: Firm local participation targets for supply of renewable energy infrastructure be established in South Australia, such that it drives capital investment, with the support of the South Australia Government, in optimally scaled state-of-the-art manufacturing capability for local supply of renewable energy infrastructure.

The hydrogen strategy

The 2019 National Hydrogen Strategy, which has the intention of developing a competitive renewable hydrogen industry that is a major global player by 2030 has continued in place.

Encouragement for research and development in the utilisation of renewable hydrogen in steelmaking also forms part of the strategy. To further this goal the Australian Renewable Energy Agency (ARENA) has identified the steel and aluminium value chains as priority areas where it aims to support innovative and replicable technologies, processes and commercial models that can help to lower emissions.

Australian jurisdictions are also involved developing collateral assistance plans for the development of 'hydrogen hubs', many of which anticipate steel production as one of the industries attracted to operate at hub locations.

An example of this is the development by the South Australian Government of a world-leading hydrogen power station, electrolyser and storage facility within the Whyalla City Council area, which will assist the development of 'green steel' projects in that area.

Continued support for the local steel industry is important if South Australia's bold emissions reduction ambition of net-zero emissions by 2050 are to be met.

Recommendation: Funding for appropriate projects supporting the development of a low emissions steel capacity under South Australia's Hydrogen Strategy should continue.

Sustainability accreditation

The built environment represents a significant opportunity to reduce the state's carbon emissions more broadly and support the ongoing transition to a net-zero emissions future.

As steel is recognised as a sustainable material, there was a need to establish mechanisms for companies to determine what a sustainable steelwork supplier is and how to identify one.

Superseding ASI's Environmental Sustainability Charter (ESC), the Steel Sustainability Australia (SSA) Certification Program was established by the ASI to identify sustainable steel suppliers by assessing the environmental and social impact of their steelwork manufacturing and processing operations. The SSA program engages the entire steel value chain by certifying downstream steel fabricators, roll formers, and reinforcing processors and verifying upstream steel producers against best practice environmental, social and governance (ESG) indicators.

The accreditation is designed to be used by regulators, building and construction proponents, specifiers and procurers including government agencies, and environmental rating agencies and bodies such as the Green Building Council of Australia to determine sustainable steel suppliers and products, and to support sustainability targets such as reductions in embodied carbon. SSA certification assures steel suppliers, and their products are sustainably manufactured and processed and are sourced through responsible and ethical supply chains.

Accordingly, it is recommended that government procurement policies should make it a mandatory requirement for procurers to adhere to the ASI Sustainability Specification for Steel: <https://www.steelsustainability.com.au/resources/specification/> and source finished steel products from businesses accredited under the SSA program

Recommendations: All structural steel and fabricated or processed steel products should be sourced from businesses certified under the SSA Certification Program.

Infrastructure SA should provide some grants / funding to encourage and support the SA structural steel fabricators to undertake their SSA Certification Program.

Ensuring quality compliance to mitigate risk

As the Australasian Procurement and Construction Council says in its document Procurement of Construction Products: A Guide to Achieving Compliance (2015):

Evidence suggests that the market penetration of non-conforming products in several key construction product sectors in Australia may be up to 50 per cent. This is a sobering and alarming statistic.

Observable defects such as substandard welding that needed to be ground out and replaced, laminations in plate that could cause catastrophic failure, substandard corrosion protection affecting the life of an asset and generally poor workmanship were found unfortunately to be commonplace on imported structural steelwork.

There also is a price depressing effect from these imports that affects a sector of local fabricators that are forced to chase price at the expense of maintaining their quality systems and procedures.

The knock-on effect is that currently many fabricators and steelwork manufacturing SMEs are unable to maintain a reasonable profit that would allow them to reinvest in their businesses, such as new technology like robotic automation.

Testing by the steel industry has also identified metallic coated and pre-painted steels that do not meet Australian Standards and regulations. Examples include substandard metallic coating and paint thicknesses and non-conforming levels of lead in paint.

The non-compliances are not limited to poor quality and bad workmanship but extend to deliberate fraudulent behaviour with examples such as falsified test certificates, welds made with silicone rubber and then painted, attachment of bolt heads with silicon rather than a through bolt and water filled tube to compensate for underweight steelwork with fraudulent claims that their products meet particular Australian Standards.

This issue of non-compliant substitutions concerns building surveyors or inspectors who do not have the engineering expertise, knowledge, or often the opportunity to identify steel defects, or check whether the steel supplied is compliant.

Builders and project managers may take on the responsibility of site inspection but often do not have the skills or knowledge to understand compliance at a material or fabrication level.

Moreover, for structural steelwork there is currently no reliable system for surveillance of imported building products apart from product failure. However, if defects with major structural steel items are discovered, the prime contractor often has no alternative to meet the time constraints but to accept faulty product or try to patch repair any defects.

The implementation of a system that requires the supplier and all stakeholders in the construction chain to ensure that the products that they are selling are certified to comply with relevant standards and fit-for-purpose responsibilities within their scope will be good for Australia.

In 2014, the ASI implemented a National Structural Steelwork Compliance scheme that requires steelwork fabricators to elect to be audited for compliance capability. It is not mandatory and relies on contractor engagement and good purchasing practice for its success.

The current Specification Requirements for Structural Steel Work issued by SA Department for Infrastructure and Transport (DIT) for all SA Govt Projects - Buildings & Infrastructure specifies the following Under Section 2:

2 Quality Requirements Certification

2.1 The fabricating structural steelwork for SA Government projects shall be certified in the appropriate category under the National Structural Steelwork Compliance Scheme (NSSCS).

2.2 The supplier of materials shall hold a valid certificate of approval issued by the Australasian Certification Authority for Reinforcing and Structural Steels (ACRS). Refer to <https://www.acrs.net.au/>.

Recommendations: The above-mentioned Quality Requirements which is currently applied for SA Government Projects should be maintained and continued to be enforced as a pre-qualification requirement:

(a) All structural steel products should be sourced from mills with Australasian Certification Authority for Reinforcing and Structural Steel (ACRS) or comparable independent third-party certification;

(b) All fabricated steelwork products should be obtained from suppliers certified by Steelwork Compliance Australia third-party certification; and

(c) Steelwork meeting Australian Standard AS/NZS 5131 should be used by all governments when entering into contracts for the construction of all forms of building.

SA Government should also establish statutory mechanisms to permit the confidential reporting of the use of noncompliant product in the construction of government funded infrastructure projects.

Skilled workforce requirements

Whilst the ASI acknowledges that a suitably skilled workforce is critical to the growth of the energy, mining, resources and clean energy sectors, it is also critical to the local steel industry as well as the broader South Australian economy.

Workforce and skills' shortages present an imminent economy-wide challenge made more acute by the evolving skill requirements of the sector, competition for skilled labour between sectors and the states and territories.

ASI members have noted that skilled workers are hard to find. Steel trades (such as boilermakers and steel fabricators) were cited as being particularly difficult to secure, which is put down to steel being a less desirable career choice compared to plumbing, electrical or carpentry. Demand for similar occupational classifications from emerging industries such as submarines and ship building, defence and space makes it even more difficult for the local steel industry.

Recommendations:

To meet the local supply and delivery of infrastructure projects in South Australia, the South Australia Government should provide support to the workforce needs of the local steel supply chain from the steel mill to the distributors, the steel processors and fabricators, through the provision of SA Government funding for the promotion of careers in steel and suitable workforce training capabilities via TAFE SA and local Technical Colleges.

The knowledge and skills required to be demonstrated under relevant qualifications recognised under the Australian Qualifications Framework should be examined by the South Australia Government to see if they remain suitable for purpose.



Sulfianda Soeleiman

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13 November 2023

Mr Anthony Shepherd AO
Chair
Infrastructure SA
infrastructure@sa.gov.au

Dear Mr Shepherd

Submission – South Australia’s next 20-year State Infrastructure Strategy

Business Events Adelaide appreciates the opportunity to contribute to Infrastructure SA’s ‘Next 20-year State Infrastructure Strategy’. As a major economic contributor to South Australia, competing on the global stage to win business events for Adelaide, it is well placed to comment on the challenges and opportunities presented by our built environs.

Business Events Adelaide (previously known as the Adelaide Convention Bureau) is a 49-year-old, independent, not-for profit, membership-based organisation.

Over the past three years- FY21 to FY23 - *Business Events Adelaide* secured 392 international and domestic business events, delivering 691,000 bed nights in city hotels – predominantly in the off-peak Monday to Thursday period – and generating \$678m for the State’s economy.

Winning business events for Adelaide delivers much more than simply a high daily delegate spend, although this, at latest research, was an impressive \$632 per day compared to a tourist’s \$179. (Please note: new and up to date data will be available this financial year and is expected to show a notable increase in delegate spend).

Vitality business events also provide an economic tail of multiplying benefits that can endure years into the future. Further details of how *Business Events Adelaide* contributes to the State’s strategic imperatives are set out in **attachment 1**.

Business Events Adelaide has positioned the city as a boutique destination of choice, making a virtue of Adelaide’s size and the advantages of enhanced connectivity, ease of movement and proximity to innovation and research districts. Consistent achievement of above-average results is testament to the careful curation of this bespoke image.

Adelaide’s status as a ‘tier 2’ city, however, has limitations in respect of larger – and more profitable – business event opportunities that would fully establish its viability to a global audience.

The points listed below are a concise evaluation of infrastructure constraints that have a direct impact on *Business Events Adelaide*'s ability to attract and win business events to the state that may be considered as part of your strategic review.

Business Event Venue Capacity

Whilst the Adelaide Convention Centre is considered world-leading in many respects – not least of which being its commitment to environmentally sustainable practices – it is limited by the size of events it can accommodate. Being the largest venue in the State, *Business Events Adelaide*'s research team is not always able to pursue opportunities that have an expected attendance of greater than 5,000 delegates. Even beneath this threshold, business events which incorporate a sizeable tradeshow or exhibition element also become logistically challenging.

These factors restrict the number of proposals that *Business Events Adelaide* can submit and limits the opportunities for Adelaide.

In order to remain competitive over the 20-year horizon of this infrastructure strategy, *Business Events Adelaide* would urge consideration of the city's capability to host larger gatherings, which would include business events, conferences, exhibitions and trade shows.

Aviation Access

Over two thirds of business event planners identify an 'easily accessible location' as the primary factor when considering where to place a business event. Limited direct aviation access from key markets is a constraint for Adelaide, with international travellers usually required to transit through larger hubs.

Being a two or three stop city is a major deterrent not only in respect of ease of access but also cost and carbon footprint concerns, of which delegates are increasingly aware.

The expansion of the International terminal at Adelaide Airport has been a welcome development, albeit one that is yet to reach capacity in the wake of the COVID pandemic. *Business Events Adelaide* is encouraged by recent announcements of increased direct routes into key Asian markets but cannot overstate the importance of ensuring the future infrastructure required to encourage major carriers such as China Southern, Emirates and Air India to fly direct to Adelaide.

Hotel Supply – Adelaide and Regions

International brands

Recent additions to Adelaide's hotel supply, especially in the luxury category, have assisted to meet demand for high-quality accommodation. It must be remembered that our International audiences, in particular those from Greater China and Southeast Asia, view five-star accommodation as their base expectation.

Discerning consumers further demand the reassurance of Internationally renowned brands. Sofitel Adelaide, and the forthcoming Marriott Hotel, assuage this requirement to some extent, but research – both anecdotal and evidential – indicates that attracting additional global hotel chains to Adelaide will do much to raise its profile, drive local competition and likely encourage existing hotels to refurbish, further lifting the standard of city hotels.

Regional Hotels

Proximity to Adelaide's wine regions is the envy of most States, but business event groups have commented on the absence of high-quality accommodation at scale in the regions. Novotel Barossa Valley is the only venue capable of hosting a group of any proportions, representing a missed opportunity to spread the visitor economy beyond the CBD.

Twin Rooms

Corporate incentives are a subset of business events. They are an expensive reward given to staff or franchisees as part of a job-related bonus. Research conducted by Tourism Australia indicates that a corporate incentive delegate spends between \$1,000-\$1,500 per day, making these groups highly sought-after.

Business Events Adelaide is liaising with a number of direct selling companies, especially from China, who arrange Incentive travel for groups of up to 500 people at a time.

Adelaide's ability to compete and win these groups is hampered by a lack of twin rooms in the CBD with other destinations able to demonstrate a high proportion of rooms at a five-star level in this category.

I would be keen to expand on these high-level points with you and discuss *Business Events Adelaide's* activities more generally.

Should you require further information, I can be contacted on [REDACTED]

Yours sincerely

[REDACTED]

Jim Kouts
Chair

Attachment 1 – *Business Events Adelaide* key points

Business Events Adelaide key points - November 2023

The business events sector delivers to the State more than \$2.5b annually of which *Business Events Adelaide* directly contributes \$250m.

As an economic driver, *Business Events Adelaide* works directly into the Department of Premier & Cabinet Executive – Chief Executive Officer Damien Walker and Chief Operating Officer Wayne Hunter.

Operating funding was increased in the FY23 State Budget mid-year review, and from FY24 \$2.1m has been secured for two years out to FY25. *Business Events Adelaide* also receives access to an annual \$5m Government bid fund, secured for a further two and half years out to FY25.

The business events sector is far more than tourism. It has a different KPI and a different business model. While business events are a strong short-term contributor to the visitor economy - with its delegates spending more than \$632 a day compared with a tourist at under \$179 - it is far more than that. The State Government recognises it also delivers quantifiable long-term benefits to the economy from the economic tail of research collaborations, business partnerships, new company startups in Adelaide and even a contribution to population growth with the arrival of new professional and skilled workers.

Vitality, this economic tail from business events is aligned with the State's focus areas and innovations districts such as BioMed City, Lot 14, Waite, Tonsley Innovation District and Techport. This is the strategic two-pronged 'attack' of Business Events Adelaide for the betterment of the State.

Business Events Adelaide works closely with its Strategic Partners - including the Adelaide Convention Centre, Adelaide Airport Ltd, Adelaide Oval, Accor Hotels, Hilton Hotel and Stamford Hotels – as well as a further 130 (and growing) members from across the business events delivery sphere.

Business Events Adelaide currently has a bidding pipeline out to FY29, with competitive advantages including:

- National geographic centrality.
- Accessible, walkable, clean, green and spacious city.
- Ability to leverage off new infrastructure and world class technology.
- Proximity and size of innovation districts including medical research, universities, learning economy.
- Cost advantages.
- 'Team Adelaide' member collaboration methodology.
- Access to political leaders.
- Bespoke experiences.

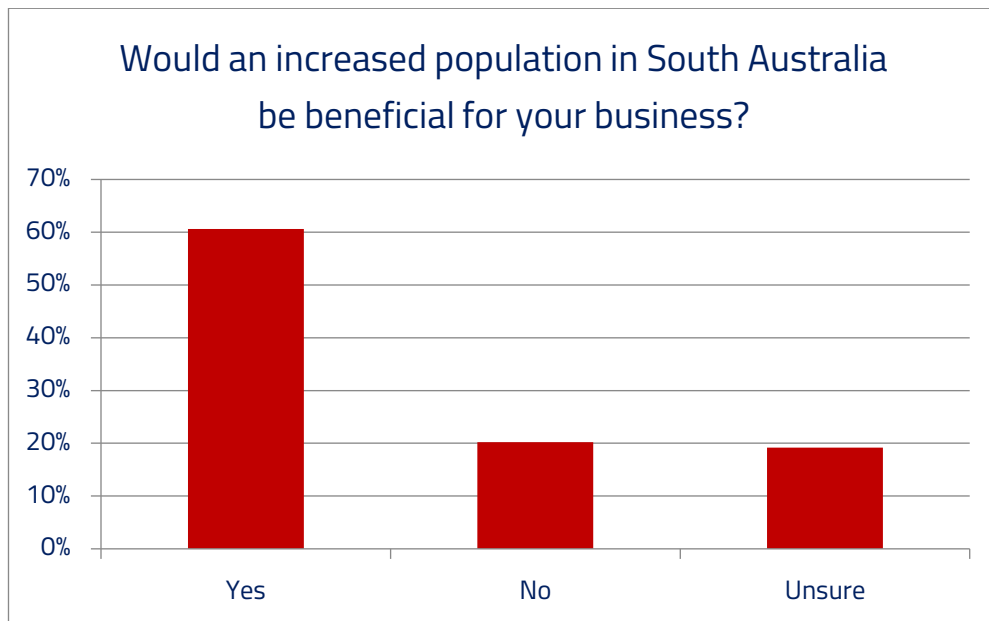
Background

In 2021, Adelaide was named the third-most-liveable city in the world in *The Economist's* 'Global Liveability Index', scoring 96.4 for infrastructure. Although the ranking fluctuated in subsequent years (30th in 2022 and 12th in 2023), this was an important achievement, which has helped us to raise our global profile. We know from discussions with the Department of the Premier and Cabinet that according to their research Adelaide and South Australia are seen as "'destination-first' by newcomers, and that 59% of people who moved here from interstate did not have a job on arrival."ⁱ We need to attract highly-skilled talent from interstate and overseas to help our economy grow and to work on our state's flagship projects, including AUKUS, renewable energy and hydrogen. In the coming decades, South Australia's value proposition will be about providing a *lifestyle* as well as a *purpose*. A high-ranking on a world-renowned index will help us market this ideal. While maintaining South Australia's coveted lifestyle will be challenging while we grow our population, both factors are vitally important to grow our economy.

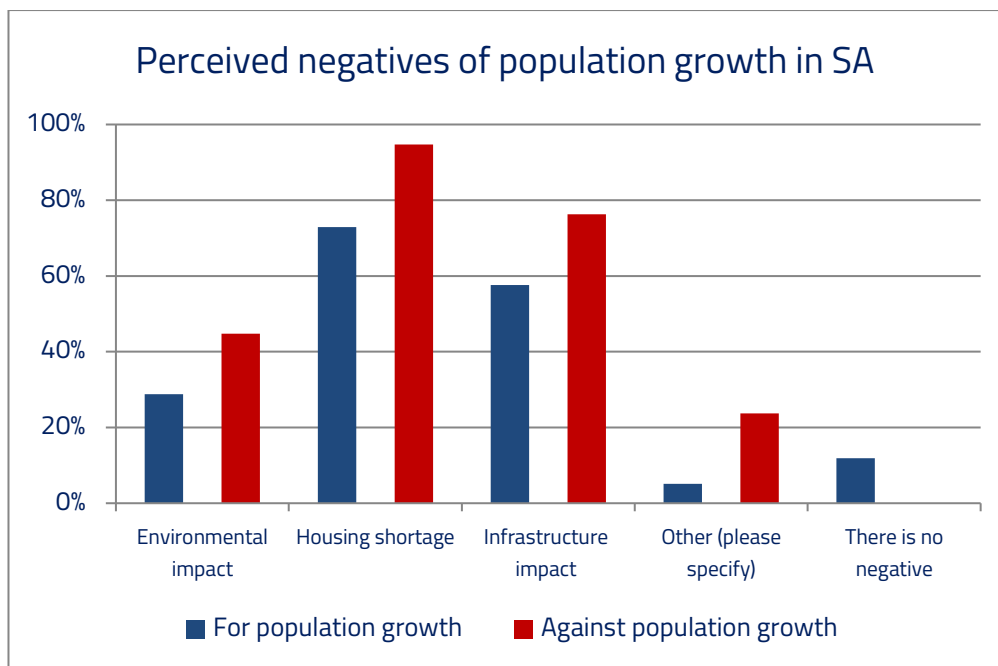
As recently reported in the media, there has been an increase in traffic congestion, leading to a decline in average travel speeds in metropolitan Adelaide. Over the past decade speeds in peak traffic reduced by 3.2km/h. This reduction has been even more substantial – 8km/h – since the Department for Infrastructure and Transport began collecting this data in 1997/98.ⁱⁱ Committee for Adelaide made similar findings in its 'Benchmarking Adelaide 2023' report, which measured traffic congestion in Adelaide to 14 similar-sized peer cities. It found that out of this group, Adelaide is the only city where the number of hours lost to congestion has increased since 2019. Adelaide has witnessed a 16% increase in congestion, while the other 14 cities have experienced a 27% decrease, on average.ⁱⁱⁱ The Department for Infrastructure and Transport attributes this to a steady increase of cars on Adelaide's roads: "The Department estimates that these numbers have grown in the Adelaide metropolitan area by an average of approximately 1% per year over the past 10 years."^{iv}

Population growth

An increase in cars can likely be attributed to an increase in population. For several decades South Australia has lagged behind the national average and is expected to continue experiencing lower population growth than most other states and territories. Nonetheless, the number of people in Adelaide and the state as a whole is steadily increasing. Last financial year (2022-23), our population grew 1.2%, with projections showing that this growth will slowly decline to 0.9% in 2032-33.^v Population growth is of significant interest to Business SA and we sought the opinion of businesses on this topic in our March 2023 'Survey of Business Expectations'.^{vi}



As can be seen from the table above, the majority (61%) of business operators in South Australia said they would benefit from increased population growth. The three most-commonly chosen responses as to how population growth would be beneficial for them were: increasing the size of the market; alleviating skills shortages; and alleviating labour shortages.^{vii} Despite these benefits, whether for or against it, population growth raises concerns.



The business community's biggest concerns regarding population growth will be discussed in greater detail below.

Housing

South Australia's population was 1,820,530 people in June 2022.^{viii} Although population growth projections vary, it is highly likely that our state will reach two million people by the early 2030s, with the Australian Government's Centre for Population forecasting South Australia will reach this milestone by 2032-33. Using Remplan^{ix} economic modelling, Business SA has found that to accommodate 179,470 new people by 2032 means we need 74,621 new dwellings, including 57,534 detached houses. Meeting this demand may prove difficult.

Forecasts from Master Builders Association (MBA) SA earlier this year show that housing construction is expected to *decline* over the next five years, due to increasing costs of construction materials, inflation and interest rates. In 2021-22 construction started on a record 14,305 new houses, units and apartments, up 6.7% from the previous year, but was predicted to fall by 7.7%, to 13,200 new homes in 2022-23. MBASA expects a similar number of homes to be built in 2023-24, and then predicts a decline of more than 3% in each of the following financial years. The overall value of annual residential activity is also expected to fall by approximately \$400 million from the record of \$3.9 billion in 2021-22.^x

Increasing the housing supply is essential to meet the demand from new arrivals as well as those already here, yet housing affordability in Adelaide has been steadily declining in the recent years. According to the latest *Demographia* 'International Housing Affordability' report, Adelaide now has the 14th least affordable housing market *worldwide*.^{xi} The rental market is also in dire straits. In 2022 Adelaide's rental vacancies were the lowest nationwide, at a mere 0.6%,^{xii} while rental vacancies in South Australia's regions were similarly low and, in some instances, even lower: Eyre 0.5%; Kangaroo Island 0.2%; Murraylands 0.4%; Northern SA 0.7%; Southern SA 0.7%; and, Yorke & Lower North 0.3%.^{xiii}

Infrastructure

Business SA is pleased that in preparation for the pressure of increased population growth, the State Government has committed to investing \$18.6 billion over four years from 2022-23 to provide new and upgraded infrastructure.^{xiv} We are, however, concerned in light of the recent announcement of Federal funding being pulled from five South Australian infrastructure projects (Hahndorf township improvements and access upgrade; Main South Rd upgrade between Myponga and Cape Jervis; Old Belair Rd upgrade at Mitcham; Onkaparinga Valley Rd, Tiers Rd, Nairne intersection upgrade; and Truro bypass project). We understand that the State Government will now have to prioritise certain projects over others and are encouraged to see all is not lost considering comments about the Truro bypass from Minister Koutsantonis: "[Although] this project is now not being funded, it doesn't mean that it's cancelled."^{xv}

When it comes to population growth, our members are concerned about negative impact on roads, schools, and hospitals. Most also agree it is necessary to plan for well-connected transport systems and waste management services to handle a larger population. We have selected the following comments from our members, which illustrate the business community's concerns:

"Traffic congestion. SA has inadequate transport routes and traffic management systems."

Administrative and Support Services, 1-19 employees

"It should be very targeted population growth with a strong focus of both federal and state governments to ensure that infrastructure is developed in advance of population growth to support the growth."

Health Care and Social Assistance, 200+ employees

“Government needs to invest in more schools, hospitals, doctors, police, rail services, roads now - ahead of demand - not post.”

Transport, Postal and Warehousing, 200+ employees

“Government should focus more on regions to spread population across more of SA and less impact on Adelaide metro. This will also assist regional communities and jobs.”

Agricultural, Forestry and Fishing, 50-99 employees

Environment

It is also important to consider the environmental impact of population growth. For example, significant additional housing will lead to densification and increased urbanisation, with potentially challenging consequences. The negative impacts of densification specifically stem from reduction of open space, including less recreational opportunities, urban biodiversity and neighbourhood character.^{xvi} In 2021 Adelaide became the world’s second National Park City.^{xvii} We need to preserve this status and ensure infrastructure planning complements this.

In December 2022, Business SA made a submission on the Planning System Implementation Review, where we supported proposals to provide for greater urban tree canopy cover in Adelaide. Informed by research which speaks to the benefits of green spaces for health and wellbeing, we believe preserving and increasing the city’s tree canopy will support Adelaide to remain one of the world’s most liveable cities. In our submission we also suggested establishing benchmarking, measurable across jurisdictions, to assist in achieving a greater urban tree canopy. Furthermore, Business SA noted its satisfaction with the discussion paper’s mention of new criteria having been developed with respect to the tree canopy cover, including mandatory tree planting policy in urban infill areas to ensure at least one tree is planted per new dwelling (with an alternative option for payment into an offset fund where tree planting is not feasible on site).

Regions

As noted in our 2019 submission on the previous iteration of Infrastructure SA’s ‘20-Year State Infrastructure Strategy’, Business SA’s regional members often tell us about difficulties in attracting workers to regional areas. Attracting families to the regions can be particularly challenging due to concerns about lack of access to housing and health services. The comment below is specific to the Fleurieu Peninsula, but reflects the challenges faced by businesses across regional South Australia.

“No new land has been released for the Fleurieu, despite the region being one of the fastest growing populations regionally. Housing affordability and availability is a big problem.”

Construction, 1-19 employees

Findings from our 2020 Regional Voice survey echo this sentiment. A lack of access to community infrastructure and necessary services was raised as a key barrier to finding staff willing to move to the regions.^{xviii}

Apart from that, concerns were also raised about *digital infrastructure* (internet & NBN), ranked the fourth most important issue ‘Affecting My Business’ and *economic infrastructure*, listed as the fourth top issue ‘Affecting Businesses in My Region’. Improving both would be an important factor to assist the competitiveness of regional South Australian businesses.

“Road infrastructure is a concern to many I speak with – unsafe roads, particularly for heavy vehicles.”

Yorke Peninsula/Mid-North/Port Pirie, Personal & Other Services, Sole Trader, < \$250k turnover

“There is a huge risk that we won’t see the benefits of 5G due to the reduced range and requirement for significantly more infrastructure.”

Yorke Peninsula/Mid-North/Port Pirie, Manufacturing, 20–49 employees, \$10m–\$50m turnover

“Public transport to my region is almost non-existent. Hospital is not sufficient, police services are not sufficient. These things need to be sorted as a priority”

Adelaide Hills/Murraylands/Mount Barker/Strathalbyn, Tourism, Sole Trader, < \$250k turnover

In Regional Voice 2020 *investment in economic infrastructure* was ranked as their highest priority for further Government support. The following projects were specifically noted for further investment:

- Development of a deep sea port for Kangaroo Island
- Multi-user deep sea port at Cape Hardy

Businesses also suggested that additional investment in infrastructure would improve their connection to other parts of South Australia, Australia and the world, including roads and communications.

Conclusion

Strategic infrastructure planning in South Australia is crucial for driving economic growth and bolstering business prosperity. A well-developed infrastructure network enhances logistical efficiency, lowers operational costs, and attracts businesses to the region. This, in turn, stimulates economic activity and creates a conducive environment for entrepreneurship. With reliable transportation and utilities, businesses can operate efficiently, contributing to increased productivity and competitiveness. Robust infrastructure also plays a pivotal role in talent attraction and retention, as a thriving business ecosystem relies on quality amenities, including healthcare and education. In essence, a business-oriented approach to infrastructure is paramount for South Australia's economic dynamism and the sustained success of enterprises in the region.

Endnotes

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**CEMENT INDUSTRY
FEDERATION**



**CEMENT INDUSTRY FEDERATION
SUBMISSION**

*South Australia's 20-Year State Infrastructure Strategy:
Discussion Paper*

13 November 2023



1. INTRODUCTION

Thank you for the opportunity to contribute to consultation on *South Australia's 20-Year State Infrastructure Strategy Discussion Paper*.

The Cement Industry Federation (CIF) is the national body representing all Australian integrated cement manufacturers – Adbri Ltd, Boral Cement Ltd and Cement Australia Pty Ltd.

Australian cement production is a **critical manufacturing industry of national importance**, especially given the need for sovereign capability to support the major Government investment in defence infrastructure in South Australia at a time of growing regional and global security challenges.

South Australia plays an important role in the manufacturing of clinker-cement with Adbri's Birkenhead and Angaston integrated cement-clinker plants manufacturing over 1.1 million tonnes of cementitious products for the South Australia, Queensland and Victorian markets.

The industry supports over 1,200 employees in high paid positions as well as hundreds of apprentices, contractors and transport operators. The cement, lime¹ and concrete value chain supports over 15,000 jobs in Australia.

Cement is often referred to as the 'lifeblood of Australian infrastructure projects' as virtually all Australian public and private infrastructure – including domestic roads, bridges, as well as commercial and residential buildings are dependent on concrete (of which cement is the key ingredient). Cement is vital as Australia decarbonises as it is used as the foundations for wind turbines and pumped hydro.

*"Concrete is not only the world's most used building material, it is the world's most used material in general after water – for a reason. It is abundant, affordable, locally available and can be used in innumerable ways. Concrete's remarkable properties make it a vital element in both limiting the scope, and combating the effects of climate change – enabling the development of sustainable and resilient building and communities around the world."*²

2. KEY POINTS

- Cement is a critical ingredient in concrete, one of the most used, safe and durable materials in the world essential for the built environment as we know it. Australian cement production is closely linked to population growth.
- Process emissions resulting from the calcination of limestone to produce clinker, the main ingredient in Portland Cement, are unavoidable and account for around 70 per cent of total direct (scope 1) emissions.
- Decarbonising the cement and concrete sector is possible through concerted action across the full cement and concrete value chain – including the design and use phase.
- The increased use of supplementary cementitious materials (SCMs) to replace clinker in cement and concrete is a key decarbonisation pathway available now. SCM availability, national standards and building codes as well as market acceptance are key issues that need to be addressed.
- Recarbonation is an important decarbonisation pathway that is currently the focus of research and action both in Australia and internationally.
- Sustainable procurement at both the federal and state level is a key policy tool being used in many countries to support domestic decarbonisation strategies.
- Linking government policy reform, wherever possible, to the sourcing of environmentally sustainable goods and services would further support the South Australian Government's climate goal and associated pledges.

¹ CIF members also produce lime, either in conjunction with clinker and cement or at stand-alone facilities.

² [Concrete sustainability \(gccassociation.org\)](https://www.gccassociation.org/concrete-sustainability)

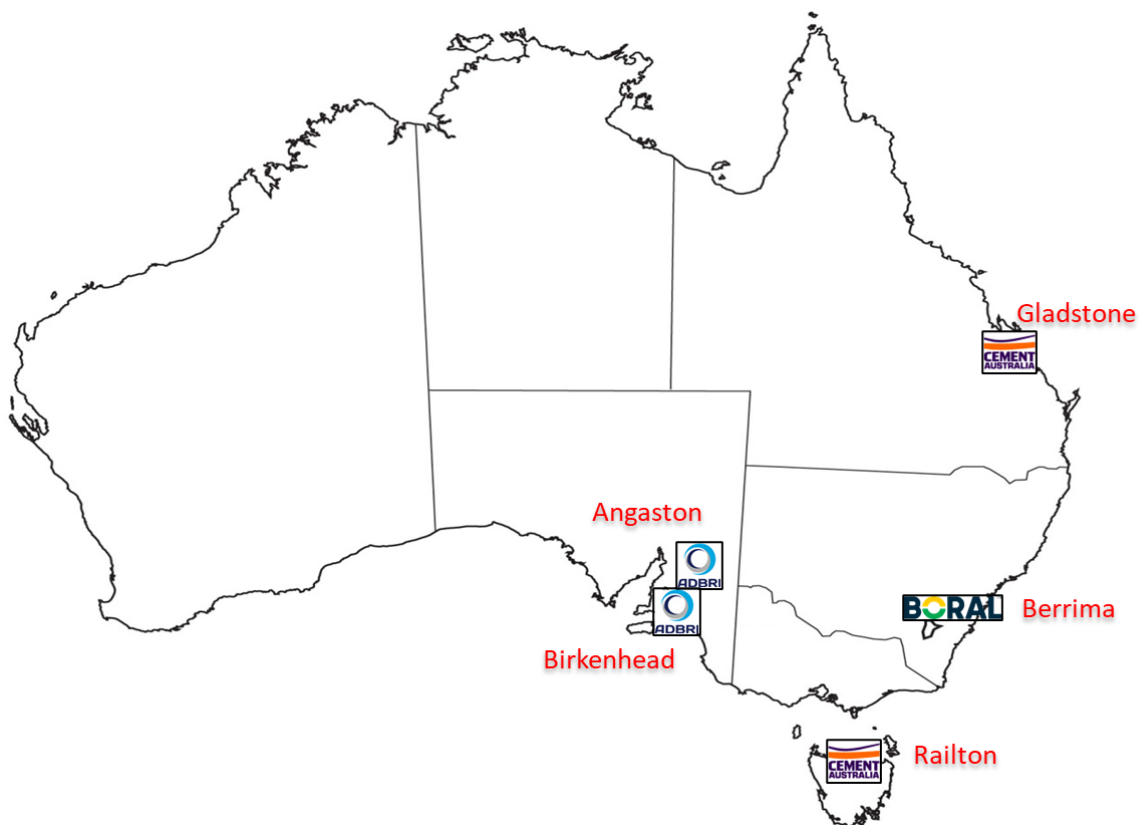
- From the perspective of Australian cement manufacturers, each of the megatrends identified in the Discussion Paper offers unique opportunities and challenges in terms of operating safe, sustainable facilities that contribute to the economic and social wellbeing of the regions in which they operate, while at the same time delivering quality, lower carbon products that are, and will remain for the foreseeable future, essential for Australia's critical infrastructure.

3. CEMENT PRODUCTION – AN OVERVIEW

Cement is a critical ingredient in concrete, one of the most used materials in the world and essential for the built environment as we know it. Australian cement production is closely linked to population growth.

Australian integrated cement manufacturers produce clinker and cement at five facilities, located at Birkenhead (SA), Angaston (SA), Berrima (NSW), Gladstone (QLD) and Railton (TAS)– Figure 1. CIF members also produce lime, either in conjunction with their cement operations or as stand-alone facilities.

Figure 1: Location of cement manufacturing facilities



Portland cement is manufactured from local sources of limestone using state-of-the-art pre-calciner technology. Limestone is crushed and blended with minerals such as shale, iron ore and sand. The resultant raw mix, or 'meal', is then sent to a pre-calciner where it reaches temperatures of up to 860 C, before entering a rotating kiln where it is further heated to 1,450 C.

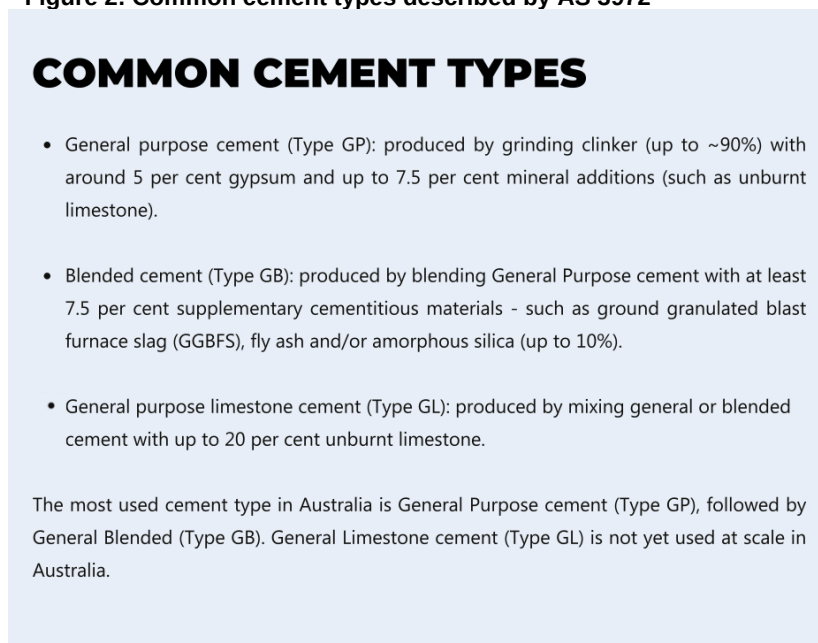
At these temperatures the mix undergoes a sintering process as it passes through the rotating kiln, partially melting and forming nodules of clinker. The clinker is then cooled and stored before being sent to the grinding mill, where it is blended with gypsum and other materials (such as unburnt limestone, fly ash and blast furnace slag) – depending on the type of cement required.

The resulting cement products are then distributed (via road, rail or sea) to customers around the country.

Common cement types listed in the Australian cement standard (AS3972) are: General Purpose (Type GP), General Blended (Type GB) and General Limestone (Type GP) – see Figure 2.

Type GP is the most used cement type in Australia, followed by Type GL. Type GL cements are not currently used at scale in Australia.

Figure 2: Common cement types described by AS 3972

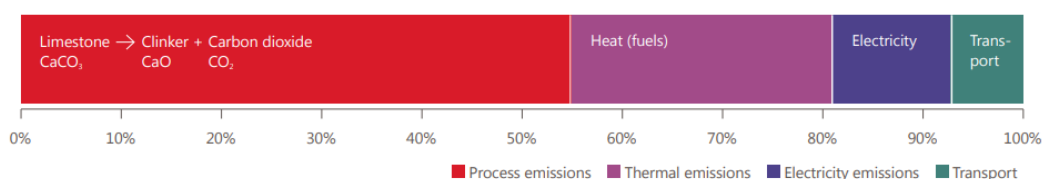


4. CEMENT AND CONCRETE EMISSIONS PROFILE

The chemical reaction (process emissions) resulting from the calcination of limestone to produce clinker, the main ingredient in Portland Cement, is unavoidable.

There are three main sources of carbon-dioxide emissions from the traditional cement manufacturing process - process emissions, direct thermal (energy) emissions and indirect (electricity) emissions (Figure 3).

Figure 3: Typical emissions profile of Australian cement and concrete production

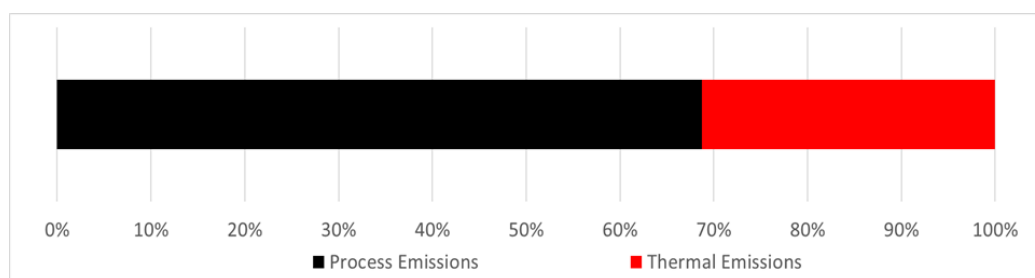


Approximately 55 per cent of per cent of total carbon dioxide emissions occur as unavoidable process emissions which result from the necessary conversion of calcium carbonate to calcium oxide. Calcium carbonate is present in the principal raw material used in cement manufacture, limestone.

When only direct (scope 1) emissions are considered, process emissions account for around 70 per cent (Figure 4).

Unavoidable process emissions are the primary reason why cement and lime manufacturing are considered hard-to-abate sectors.

Figure 4: Typical Australian Cement Emissions Profile – Direct (Scope 1) Emissions



5. DECARBONISATION PATHWAYS

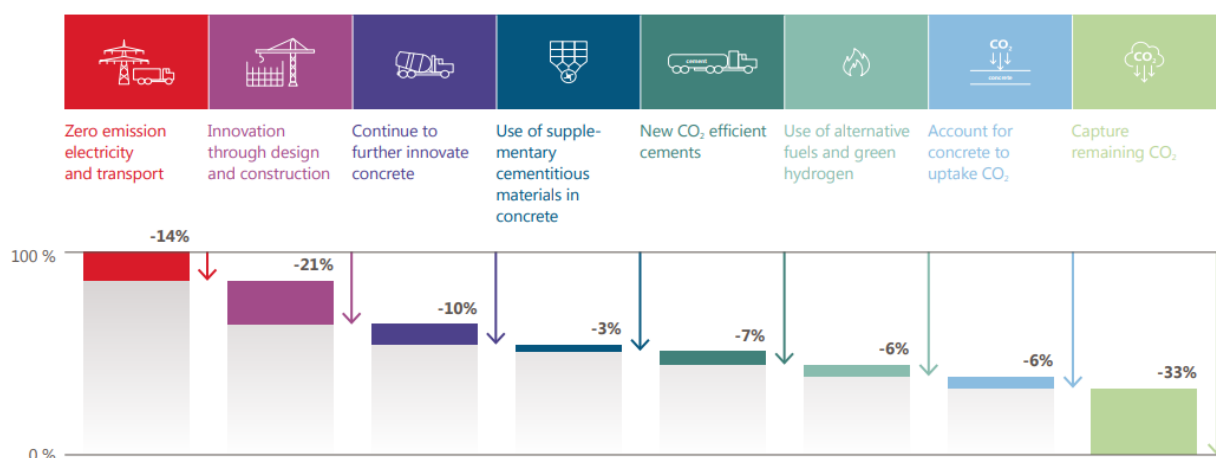
Decarbonising the cement and concrete sector is possible through concerted action across the full cement and concrete value chain – including the design and use phase.

VDZ, a world-renowned cement and concrete research centre, was commissioned to undertake a study to better understand the technologies and practices necessary to decarbonise Australian cement and concrete.

The [report](#) identified eight decarbonisation pathways and key research requirements for the Australian cement and concrete industry to meet its declared ambition to deliver net zero carbon cement & concrete by 2050 (Figure 4), namely: Zero emissions electricity and transport, Innovation through design and construction, Innovation in concrete, Use of SCMs in concrete, Clinker substitution (new CO₂ efficient cements), Alternative fuels and green hydrogen, Recarbonation, Carbon Capture, Use and Storage. Carbon, Capture, Use and Storage is not expected to be commercially viable or available until around 2030 and will likely require significant public and private support.

Clinker substitution and the development of new, lower carbon cements are examples of decarbonisation pathways available now, while other pathways such as zero emissions electricity/transport and CCUS will be available as technology and markets mature.

Figure 4: Identified decarbonisation pathways for cement and concrete



6. INNOVATION AND SUSTAINABILITY IN PROCUREMENT

The increased use of supplementary cementitious materials (SCMs) to replace clinker in cement and concrete is a key decarbonisation pathway available now.

Clinker, when ground with 4 to 5 per cent gypsum, develops the useful cementitious quality of reacting and hardening when mixed with water. There are other mineral compounds that also have these hydraulic

properties when mixed and ground with clinker and gypsum. These mineral compounds can be used as clinker substitutes known as SCMs.

Due to the fact these compounds are pre-calcined (heated) by other industrial processes, the avoided emissions (process and combustion emissions) make SCMs one of the most attractive greenhouse gas reduction options for the cement and concrete sector.

Materials that can replace clinker in cement and concrete can be naturally occurring (unburnt, ground limestone) or manufactured – for example, as a by-product of other industries (fly ash, ground granulated blast furnace slag) that would otherwise be sent to landfill or stockpiled.

SCMs have been used in cement and concrete manufacture for many years. They contribute to performance with the added benefit of offsetting emissions associated with clinker. However, several factors can limit the use of SCMs in cement production, including:

- Availability of SCMs
- National standards and building codes and
- Market acceptance

Notwithstanding cement standards, market acceptance can also be a limiting factor in the use of SCMs. Government agencies, responsible for large infrastructure projects, often require design specifications which hinder the optimal use of SCMs to produce lower carbon cements.

SCM Availability

SCMs in use today, both in cement and concrete, are primarily industrial by-products such as fly ash (from coal fired power generation) and ground granulated blast furnace slag (GGBFS). Limestone that has not been calcined (heated) can also be used.

As the Australian economy decarbonises out to 2050, it is possible that the by-products from steel and coal fired power generation will decline, therefore limiting access to key SCMs. While Australia has significant stockpiles of fly ash, it is not currently suitable for use as an SCM in cement and concrete production and will require significant investment in technology and processes to make it available at scale.

Limestone is abundantly available in Australia and will continue to be so for many years.

Future sources of SCMs, such as calcined clay and by-products from lithium production for example, are being actively investigated and will be critical as the demand for lower carbon cement and concrete increases into the future.

National standards and building codes

Standards, Codes and Specifications for cement, SCMs and concrete need to be reviewed and updated where necessary to fully realise the emissions reduction potential of clinker substitution.

This will require the modification of existing cement types (i.e., Type GP, Type GB and Type GL) as well as the introduction of new, low carbon cement types (i.e., to allow for new SCMs such as calcined clay, as well as higher limestone cements).

For example, a reduction in clinker content to produce a lower carbon Type GP cement can be obtained by increasing the maximum mineral addition (limestone content) from 7.5 per cent to 10 per cent. This is currently being considered as part of a review of the Australian cement standard - AS 3972 – and will require the support of all stakeholders.

Overall, the proposed changes to the cement standards will increase the potential for significant emissions reductions – conservatively estimated at between 5 and 10 per cent per annum.

Other Codes and Specifications, such as those used by infrastructure authorities as well as state and local governments, should also be reviewed and updated along the same lines.

Market acceptance

Simply producing clinker-efficient cement and concretes will not solve the problem if there is little demand for the products. There will need to be a transition from product push to market pull, which will require close cooperation and ongoing exchange of knowledge along the entire cement and concrete value chain.

Public procurement can play a key leadership role here given public investment provides a major part of infrastructure spending, and since state regulator's standards will continue to determine how the majority of cement and concrete is specified.

There are already examples of strong action in this area, as evidenced by the Office of Projects Victoria [Sustainable investment Guidelines](#), which provide guidance on how to embed sustainability into infrastructure projects across all stages of the investment lifecycle.

In general, stakeholders will be looking to governments and regulators taking leadership in procurement processes with a strong focus on embodied carbon and the production and supply of lower carbon cement and concrete.

Sustainable procurement at both the federal and state level is a key policy tool being used in many countries to support domestic decarbonisation strategies. Decarbonisation Pathways for the Cement and Concrete Sector (2021) identifies sustainable procurement as a key lever to further encourage the sourcing of low carbon cement and concrete.

Linking government policy reform, wherever possible, to the sourcing of environmentally sustainable goods and services would further support the South Australian Government's climate goal and associated pledges.

7. RECARBONATION

Recarbonation as an important decarbonisation pathway that is currently the focus of research and action both in Australia and internationally.

It is well known that plants absorb carbon dioxide by photosynthesis and therefore forests act as a global sink for carbon dioxide. It is far less well known that cement (the key ingredient of concrete) in our built environment, in our cities and infrastructure, also absorbs carbon dioxide.

The International Panel on Climate Change's (IPCC) Sixth Assessment Report (2021) noted recarbonation as a sink associated with cement and concrete production. The IPCC report also noted that the uptake of carbon dioxide in cement and concrete infrastructure (carbonation) offsets between 20-43 per cent of the carbonate emissions from current cement production (process emissions).

Research has been commissioned in Australia to model the uptake of carbon dioxide in cement and concrete through a project being funded by the SmartCrete CRC. The project, along with similar research projects from a number of other countries, will feed into the IPCC process, as well as national inventories, through the relevant national and global associations.

Recarbonation occurs during the lifetime of concrete structures and continues into the end-of-life stage. As such, the emissions reductions associated with recarbonation in cement and concrete, once modelled, should be accounted for during any project sustainability assessment.

8. MEGATRENDS – THE AUSTRALIAN CEMENT INDUSTRY IN CONTEXT

The discussion paper discusses five 'global megatrends' that are likely to impact infrastructure delivery into the future, namely:

- Climate change mitigation and adaptation
- Accelerated digital transformation and data vulnerabilities
- Shifting population, workforce and skills base
- Increasing global instability and challenges of connectedness of economies
- Push towards an inclusive society and economy

From the perspective of Australian cement manufacturers each of the megatrends offers unique opportunities and challenges in terms of operating safe, sustainable facilities that contribute to the economic and social wellbeing of the regions in which they operate, while at the same time delivering quality, lower carbon products that are, and will remain for the foreseeable future, essential for Australia's critical infrastructure.

Each megatrend is discussed briefly below from a cement industry perspective.

8.1 Climate change mitigation and adaptation

Australian cement manufacturing has a role to play in both climate change mitigation and adaptation. In terms of adaptation, concrete – with cement as a key ingredient – is a resilient construction material that performs well in the extremes of Australia's weather and climate³. For example, concrete:

- has natural strength and durability (i.e., disaster resilience)
- does not burn or give off toxic fumes, making it suitable for bushfire prone areas
- provides good flood/wind resistance and protection from wind-borne objects

Concrete will continue to play a role in Australia's built environment – especially via key structures such as dams, bridges, roads, wind-turbine foundations, housing and commercial construction – to name a few.

From a mitigation standpoint, cement manufacturing offers unique opportunities and challenges to Australia's emissions reduction goal. Cement manufacturing is considered one of the hardest-to-abate sectors due to the nature of the process. However, under the right conditions Australia's cement industry has the potential to transition to net zero (or better) by 2050. Policy, regulatory and economic measures should aim to support cement manufacturers as they seek to identify, develop and implement key decarbonisation technologies.

Successfully navigating identified and emerging emissions reduction pathways will be critical as Australia heads towards a net-zero future.

8.2 Accelerated transformation and data vulnerabilities

Australian cement manufacturers have many decades of operating experience in terms of dealing with technological change, and therefore are well placed to navigate the challenges and opportunities associated with new technologies and the digital transformation of our economy – including the associated data vulnerabilities. The continued focus on technology and research is likely to accelerate as our industry works towards the challenge of achieving net-zero emissions by 2050.

8.3 Shifting population, workforce and skills base

Cement manufacturing and distribution provides thousands of jobs and critical investment in regional Australia as well as the suburban and industrial areas of our cities. Around 1,200 people were directly employed by CIF member companies during 2021-22 in the production and distribution of clinker, cement and cementitious products. These products are critical for Australia's heavy construction materials industry, which employs a further 30,000 directly and an estimated 80,000 people indirectly.

Cement demand is closely aligned with the need to create new and maintain existing buildings and infrastructure such as roads, bridges, buildings and housing. When the Australian population increases and there is strong domestic growth, the demand for cement increases. Cement manufacturing and distribution provides thousands of jobs and critical investment in regional Australia as well as the suburban and industrial areas of our cities.

Our sector, as with other key manufacturing industries, is critically dependant on the availability of a well-rounded workforce. As part of this, a continued focus on training and apprenticeships will provide key pathways to a solid career path for many young Australians and address skill shortages within many sectors, including the cement industry.

³ www.futureproofwithconcrete.com.au

8.4 Increased global instability and challenges of connectedness in economies

It is important to note that cement manufacturing plants do not have the capability to reduce or increase supply to meet changing local demand requirements. Our integrated clinker and cement facilities either operate at full capacity or not at all.

Supply is supplemented by imported product that may become more difficult to source in the short term. This was evident during the COVID-19 pandemic and could, in the future, be impacted by disruptions to the global supply chain – e.g., shipping.

This also applies to the continued supply of secure and affordable energy – both to generate heat for the process (primarily via coal and/or gas) as well as the electricity required for the various production stages and ancillary equipment.

Without a continuous supply of Australian manufactured building materials, the domestic building and construction sector would quickly have difficulties in continuing to operate at the levels required within the Australian economy.

This also highlights the importance of ensuring that Australia's existing domestic cement manufacturing capability is maintained and, wherever possible, strengthened.

8.5 Push towards an inclusive society and economy

The Australian cement sector offers a wide range of employment opportunities in operational and functional roles, including trades, engineers, drivers, customer service professionals, accountants and sales specialists.

Our industry is committed to developing a strong leadership culture amongst its workforce with an ongoing commitment to key areas including safety, health, environment and sustainability management, diversity and inclusion. CIF member companies strive to provide a workplace environment that develops and encourages highly skilled and motivated employees that take pride in what they do and the industry within which they work.

CIF member operations have a significant presence in the communities in which they are located, providing employment and associated benefits to these local communities and the economy more broadly. CIF members communicate and engage with members of their local communities through community consultative groups, community partnerships, newsletters, site tours as well as regular community meetings with key stakeholders on specific issues as required.

Developing and maintaining a strong positive relationship with the local communities in which our members operate is viewed as essential to ensure a strong, vibrant and sustainable future for the individual operations and the industry as a whole.

9. CONSULTATION QUESTIONS – SELECTED RESPONSES

Q1: What opportunities should we consider to improve South Australia's economic growth?

Ensuring a strong and sustainable domestic manufacturing base – especially for critical materials such as cement and lime – will be critical for continued economic growth. Part of this will involve a continued focus on identifying and reducing regulatory barriers wherever possible, whilst maintaining the high levels of sustainability performance expected by all stakeholders as part of a general social licence to operate.

Cement and cementitious products will be vital for South Australia's copper and mining sectors for use as back-fill binder. Having locally sourced and manufactured cement ensures these critical sectors can continue to operate.

This will be especially important as our sector investigates and moves to implement new technologies and measures to assist in the decarbonisation of our industry. For example, efficient approvals processes and timelines will be important as new technologies are trialled and considered for implementation.

Also, the expected increased uptake in alternative fuels and raw materials (AFRs) would be assisted by efficient regulatory approaches – both in terms of general license conditions (i.e., what fuels can be used and how) and waste policy in general (i.e., long term availability of suitable AFRs).

Promotion of local content should also be a priority to stimulate and encourage the growth of local industries through the optimal usage of local resources and materials. This drives value across many facets of stakeholders touching our traditional owners, asset owners, designers, suppliers and contractors.

Whilst there are a number of industry and regional targets driven through procurement processes the ability of the local supply chain to flex and build bespoke complex project solutions through local resources and materials is a key outcome of requiring local content where possible.

In Australia our industry promotes stakeholders to work in a collaborative way to support future communities in national and localised programs. Local content delivers real value to all stakeholders and should remain a key consideration within all infrastructure projects.

Q2: What infrastructure constraints are preventing a more efficient, accessible and productive freight sector?

Road and rail networks are critical to Australia's freight task including the movement of critical materials such as cement and lime around the country. Maintaining and improving existing road and rail infrastructure should be a key priority for all Australian jurisdictions to support existing and future freight requirements.

Part of this includes identifying and addressing vulnerable road and rail infrastructure to improve resilience and minimise network disruptions. For example, the 2022 floods in South Australia highlighted significant vulnerabilities in the road and rail network that led to significant difficulties in terms of keeping supply chains open.

Where improvements are required, concrete roads should be considered. Concrete roads are strong, durable and capable of withstanding extreme environmental and operating conditions. They can provide a service life of over 40 years and are ideal for heavy traffic loads.

It is also likely that there will need to be an increased focus on refuelling/charging infrastructure across the network, as the transition towards decarbonisation continues and the number and type of low/zero-emissions freight vehicles increases.

Q15: What infrastructure investments will support industries to transition to a global net zero future?

Clean energy industries that can deliver low/zero carbon fuels to substitute for existing fuels such as coal and gas should be supported. For example, green hydrogen may be able to be used in cement kilns at substitution rates up to 10 per cent. Further research will be required to test higher substitution rates.

There is also the opportunity for synergistic arrangements with cement plants, e.g., captured carbon dioxide from the cement kiln used to manufacture products such as clean fuels and chemicals (green methane or methanol) and/or mineralised products⁴.

These types of projects should be supported and prioritised.

As mentioned above, clinker substitution using SCMs to create new CO₂ efficient cements is also a key decarbonisation pathway for the cement sector. Projects aimed at creating and obtaining acceptance of new innovative cement types should be supported.

In general, fully decarbonising Australia's capital-intensive cement (and lime) industry will require significant investment. For example, early international experience suggests that carbon capture

⁴ In the case of clean fuels, by-products from the production of the fuel such as oxygen can be fed back to the kiln to improve efficiency (i.e., through oxyfuel combustion). See: [Cement Australia and Mitsubishi Gas Chemical Company Begin Joint Study on the Production of Green Methanol using Green Hydrogen and CO₂](#) - October 28, 2022.

technologies alone are likely to have ballpark costs in the hundreds of millions of dollars. This is without the associated transport, use and/or storage costs.

The reality is that the commercial adoption of CCUS by Australian cement facilities is unlikely to occur before 2035 without significant investment in both capture technology as well as transport and storage infrastructure.

Q16: How do we maintain an affordable, reliable and secure energy system through the energy transition?

Cement use in Australia will increase as the nation decarbonises. Cement and concrete are critical for the transition to a low carbon economy, as they provide the foundations of wind turbines, pumped hydro dams, and tidal power installations.

Access to zero emissions electricity and transport by 2050 is a key decarbonisation pathway for the cement and concrete sector – potentially accounting for around 14 per cent of the reduction task between 202- and 2050⁵.

However, the continued supply of **reliable** and **affordable** sources of electricity during the transition will be critical to maintaining the international competitiveness of Australian cement manufacturers. This will not only be critical for existing requirements (e.g., crushing, screening, grinding) but also as our sector investigates identified decarbonisation pathways that may require higher levels of electricity use – for example lower carbon products that may require additional grinding.

Additionally, future decarbonisation technologies such as carbon capture, use/storage are likely to increase energy requirements for energy intensive manufacturers – e.g., through transport, compression and storage of carbon dioxide. As such, Governments will need to provide support to bring forward technology development – not only in areas such as carbon capture, but also transport and storage infrastructure.

Decarbonising the electricity grid while maintaining supply and affordability will be critical to maintaining critical Australian manufacturing industries.

Q18: What action is needed to achieve a circular economy in South Australia?

Cement kilns are ideally suited to the safe recovery of energy and co-processing of a range alternative fuels and raw materials (AFRs) – including certain types of hazardous waste that can have very limited disposal options.

The high-temperature sintering process and alkaline conditions lead to the absorption of combustion products and heavy metals into the clinker.

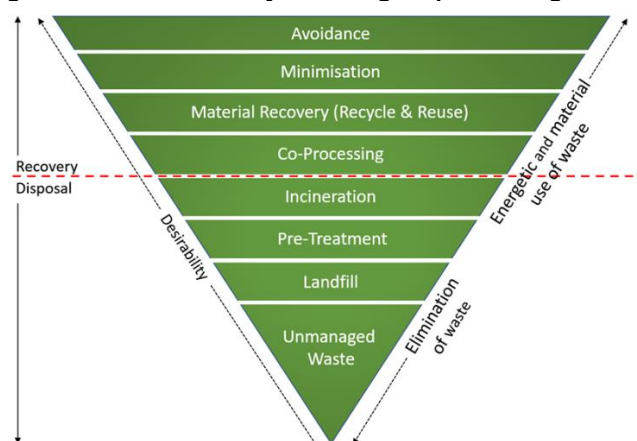
This has led to the cement manufacturing industry playing an increasingly vital role in waste management and resource recovery across the globe. Cement producers in Japan, Europe, USA, Canada, and Australia (and many others) have been active in seeking out alternative fuels and materials for well over 40 years.

The Government can facilitate regulatory processes and assist in building and maintaining community support for the industry continuing to replace fossil fuels with alternative fuels, where possible.

From a waste hierarchy perspective, coprocessing is typically considered as the next best option after material recovery (Figure 5), as AFRs in general provide both material and energy components. All CIF members are working to increase the safe uptake of alternative fuels in their operations. Doing so reduces the amount of fossil fuels required to produce cement and therefore greenhouse gas emissions. It also makes use of materials that would otherwise be considered a waste – thereby contributing to the circular economy.

⁵ [Decarbonisation Pathways for the Australian Cement and Concrete Sector, VDZ \(2001\)](#)

Figure 5: Waste hierarchy including co-processing



In general, co-ordinated legislation to enable a circular economy should be a key focus for all levels of government, particularly in terms of (but not limited to) waste legislation.

The cement and concrete industry will be increasing the use of SCMs on the road to net zero. This will create demand and opportunities for a range of resources currently managed through waste legislation. It is imperative that governments across Australia work together to produce forward thinking legislation that enables industries to uptake circular approaches within their supply chains.

All CIF members provide transparent information about the environmental impacts of their products through Environmental Product Declarations (EPDs). Governments can take the EPDs into account in their procurement plans to support the industry's path to net zero.

The industry is continuously investing in research and development to create new, lower carbon products.

10. Further Comments

Thank you for the opportunity to provide the above comments. For further information relating to this submission please contact Margie Thomson, Chief Executive Officer, using the details below.

Margie Thomson
Chief Executive Officer, Cement Industry Federation



CIVIL CONTRACTORS FEDERATION SA |
SOUTH AUSTRALIA'S 20-YEAR STATE
INFRASTRUCTURE SUBMISSION
INFRASTRUCTURE SA (ISA)



**CIVIL CONTRACTORS
FEDERATION**
SOUTH AUSTRALIA

INTRODUCTION

The CCF SA welcomes the opportunity to provide a submission in response to the South Australia's 20-Year State Infrastructure Strategy (ISA) Discussion Paper. Our submission is based on research and feedback of our membership including interviews with CCF SA Board members, who are industry representatives from Tier 1, Tier 2 and SME civil contracting companies across South Australia.

ABOUT CCF SA

The Civil Contractors Federation (South Australia) (CCF SA) is the peak industry body representing, protecting, promoting and connecting the civil construction industry in South Australia. The CCF SA has a growing diverse membership of 500 companies of all sizes that employ up to 50,000 South Australians. CCF SA also has a training arm, Civil Train SA, a Registered Training Organisation (RTO), that delivers nationally accredited and non-accredited training in South Australia, Western Australia and the Northern Territory, to at least 15,000 people annually.

Civil contractors are at the heart of designing, constructing, and maintaining our physical infrastructure, including essential public works such as roads, railways, bridges, dams, airports, drainage and sewerage systems, pipelines, structural components of buildings, and community facilities. They provide crucial support services and access for the liveability of the community, making civil contracting the second-oldest engineering discipline after military engineering. Civil contracting covers both the public and private sectors, ranging from municipal to national governments and individual homeowners to international companies. Members are also involved in the preparatory works for mining and other resource developments.

The CCF SA works towards advocating the development of built infrastructure for economic, social, and environmental growth. It seeks to influence government policies, regulations, and resource allocation to benefit and sustain the civil contracting industry and the community.

Date – 24 November 2023

This submission has been prepared on behalf of the Civil Contractors Federation South Australia by:

Rebecca Pickering
Chief Executive Officer and Executive Director Civil Apprenticeships and Careers Ltd
CCF SA South Australia
1 South Road, Thebarton, SA 5031
[REDACTED]

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A LETTER TO THE COMMISSION CHAIR

Dear Anthony

The Civil Contractors Federation (CCF SA) is grateful for the opportunity to provide feedback on the 20-Year State Infrastructure Strategy (referred to as the 20-Year Strategy) and acknowledges the extensive efforts put forth by Infrastructure SA in crafting the discussion paper for public review.

The discussion paper coincides with the release of the Greater Adelaide Regional Plan (GARP), which proposes planning policies for the next 30 years in the city of Adelaide and surrounding districts. It is important that the ISA 20-Year Strategy is reviewed, taking into account the outcomes from the GARP. CCF SA has provided its GARP submission in support of this submission for continuity of information sharing and ideas.

CCF SA ultimately recognises that the greatest rewards for our State are contingent on having a carefully designed long-term plan that centres on efficiency, liveability, and sustainability. South Australia's ability to build infrastructure and its prosperity is dependent upon functional, efficient and cost-effective civil infrastructure. Healthy, well-functioning and productive States depend on infrastructure that civil contractors construct and maintain.

In terms of implementation, it is essential that the 20-Year Strategy is supported by strong public sector procurement practices. This will ensure civil contractors can compete in transparent and consistent protocols to secure contracts. Moreover, to capitalize on the employment and growth potential in the civil construction industry, it is necessary to accelerate infrastructure project initiation and create a steady stream of work for local South Australian businesses, thereby enhancing their capability and capacity.

South Australia is presented with a unique opportunity to lead the way in infrastructure development by leveraging its comparative strengths and advantages. This requires the elimination of hindrances and fostering of innovation.

CCF SA urges the creation of new policies that optimize infrastructure outcomes, efficiency, and value for money. The government must attract and retain civil contractors to build South Australia's prosperity and growth. We need to be innovative and responsive to opportunities to enhance our economic growth and liveability.

This document outlines the key objectives, pathways, and recommendations necessary for immediate to long-term changes to government strategy and policy. These recommendations will stimulate increased activity and a pipeline of projects to increase the competitiveness and sustainability of South Australia.

The civil construction industry is a proven creator of jobs and economic growth; it is ready and capable of supporting goals of both the 20-Year Strategy and GARP; however, we must start today.

A black rectangular box redacting the signature of Rebecca Pickering.

Regards

Rebecca Pickering

BACKGROUND

South Australia's 20-Year State Infrastructure Strategy

LINK: [South Australia's 20-year Infrastructure Strategy Discussion Paper](#)

Infrastructure SA (ISA) delivered its first 20-Year State Infrastructure Strategy in May 2020. ISA are now developing the next 20-Year State Infrastructure Strategy (the Strategy) which will:

- focus on economic growth, aligned with the South Australian Economic Statement
- identify the challenges and opportunities for providing and managing infrastructure
- consider how we can maximise the value of the State's existing assets
- identify requirements for new infrastructure, and the policy changes or other reforms that can help drive economic growth through an infrastructure lens
- recommend future priorities to ensure the State has the infrastructure needed to grow the economy, create jobs, and improve the liveability and sustainability of South Australia.

The new Strategy will replace the 2020 Strategy and will be available online.

HOW TO READ THIS DOCUMENT

- this document has been written in parallel to the Greater Adelaide Regional Plan (GARP). As such some questions asked will be redirected to the GARP via this indicator "REFER GARP CCF SA SUBMISSION RECOMMENDATIONS: 1, 2, 3 etc."
- other recommendations are identifiable via the orange text, under heading **RECOMMENDATIONS**

CHAPTER 4 | THE ECONOMIC CONTEXT

Q 1. Section 4.4 | **Our productivity challenge** – What opportunities should we consider to improve South Australia's economic growth?

REFER GARP CCF SA SUBMISSION RECOMMENDATIONS: 1, 2, 3, 4, 6, 7, 8, 9, 10

RECOMMENDATIONS

- Investigate how best civil industry feedback can be captured and then can contribute directly to the South Australian Government's new Economic Development Board. To fully support the infrastructure components outlined in the South Australian Economic Statement, it is imperative to rely on industry intelligence, strong business cases, and well-informed feasibility plans.
- Current levies have the potential to hinder business productivity and investment, especially those levied at the business level, which impact cash flow. The Construction Industry Long Service Act 1987 (CILSL Act) is one such levy.
 - CCF SA strongly encourages the South Australian Productivity Commission (or similar independent entity) to examine and make recommendations on the existing CILSL Act to ensure it is best placed to support a strong South Australian building, construction and infrastructure industry to achieve:
 - productivity growth
 - unlock economic opportunities
 - support job creation/a building and construction industry of choice *and*
 - remove existing regulatory barriers/red tape.
 - CCF SA suggests CILSL Act technical considerations focus on productivity and economic cost-benefit analysis associated with the following:
 - Changing the current Employer-Levy Payment Model framework paid by construction industry employers, to an alternate funding model being a Project-Levy Payment Model* paid by Project Owners.
 - A reduction in construction costs where supply chain 'mark-up costs' are eliminated under an alternate funding framework being a Project-Levy Payment Model.
 - Administrative processes required to support the levy for both the current Employer-Levy Payment Model and proposed Project-Levy Payment Model.
 - Improved compliance with the CILSL Act under a Project-Levy Payment Model where low rates of awareness currently exist across the building and construction industry sectors.
 - Any extension/clarification of the CILSL Act, which includes its application to the civil construction industry (either partially or fully).
 - Introduction of a mechanism where surplus or forfeited CILSL funds may be used to support building and construction industry needs – support may include: training, mental health, suicide prevention, apprenticeship support programs, or similar.
 - Investigation and recommendations supporting best practice legislative frameworks and funding models for portable long service leave to ensure the building and construction industry remains an industry of choice, competitive and the founding principles of the long service leave, and the CILSL Act, are respected.
 - *A project-based levy framework currently functions in Queensland, New South Wales and the Northern Territory.*
- *Adopt and implement South Australia's Economic Statement. South Australia has an enviable combination of capabilities that we are renowned for. Our future economic trajectory will build upon these economic foundations:*

- *Research and innovation capability.*
- *Industrial capability.*
 - *The South Australian Government is building five new technical colleges — three in metropolitan Adelaide and two in regional South Australia — to provide students with more opportunities to gain skills for in-demand industries.*
- *Progressive and first-mover.*
- *Energy potential.*
- *Stable democracy and strong institutions.*
- *Liveability.*
- *Natural endowment.*

https://www.premier.sa.gov.au/data/assets/pdf_file/0004/895054/SA-Economic-Statement.pdf

Further to the South Australian Economic Policy consideration should be extended to include:

- **Increase support and recognition of industry, not-for-profit, Registered Training Organisations (RTOs)** – Current workforce projections suggest 5 Technical Colleges and existing TAFE SA will need supplementary support to deliver South Australia's training and education needs.
- Improve support, funding and recognition of not-for-profit, industry-based Registered Training Organisations (RTOs) to complement new Technical Colleges and TAFE SA to deliver the education and skills required to support economic growth. This may include:
 - Extended Fee-Free Tafe places to NFP industry RTOs.
 - Increase funding of identified critical training (e.g. civil qualifications and apprenticeships).
 - Shared use of capital funding, plant and equipment related to training needs.

Procurement

- Implement '**Chapter 10 | A stronger infrastructure industry**' recommendations as detailed within this document.

Workforce

- Develop an overarching workforce plan supporting the infrastructure needs of South Australia. Specific projects which should have immediate focus include: Hydrogen, Northern Water, Torrens to Darlington Tunnels Project, housing initiatives (affordable and new developments) and Women's and Childrens Hospital.
 - Focusing on initial workforce plans on these projects will take into account impacts on other infrastructure needs across the State include road maintenance and construction, private infrastructure projects, utility maintenance and construction (water, electricity, gas, communications) and both other private and public housing projects.
- Investigate and support civil infrastructure apprenticeships in lieu of Federal Funding shortfalls, including State Government engagement of GTO civil apprentices on State Government infrastructure projects.

CHAPTER 5 | ENABLING INFRASTRUCTURE

Q 2. Section 5.1 | **Freight and supply networks** – What infrastructure constraints are preventing a more efficient, accessible, and productive freight sector?

REFER GARP CCF SA SUBMISSION RECOMMENDATIONS: 1, 2, 3, 9

According to the 'Meeting the 2050 Freight Challenge published by Infrastructure Partnerships Australia' Report *"It is expected that Australia's freight task in 2020 will be double what it was in 2006 and by 2050 it will be triple its current size. The report further suggests that alongside national-level changes, modal share of the freight task will diversify across regions, with road freight's proportion varying from 30% in NSW to 5.7% in South Australia by 2050.*

As current transport links already experience capacity constraints and congestion due to inadequate infrastructure, these forecasts require immediate action. With the growing demand for transport services at all levels, existing freight corridors will suffer from pressure and inefficiencies. It is crucial to improve efficiency and provide additional capacity where needed, especially since supply chain costs can make up to 10% of a product's final cost and carbon footprint.

According to a new Grattan Institute report, Australian local roads are in a state of dangerous disrepair, especially in the bush, and they're only going to get worse without an extra \$1 billion in funding each year. 'Potholes and pitfalls: how to fix local roads' Report shows that a gradual erosion of federal funding over the past decade has been terrible for local roads.

South Australian Roads and Rail

The current road network is approximately 50+ years out of date, built to serve a completely different State economy – one with less, lighter, and smaller vehicles. There is currently an estimated road maintenance backlog of up to \$3 Billion in SA.

As a state, we are still playing 'catch up' in regard to the upgrade of our road networks. Deferring road maintenance is a false economy, as they will need reconstruction at a much higher cost. There is congestion on all the main arterial roads and this needs to be addressed.

South Australia has also been disadvantaged by the lack of Federal funding compared to other states. South Australia has 11% of national roads. Until very recently the state only received 7% of the national funding. There has been some recent welcome improvement to this ratio.

Currently, Infrastructure Australia lists only 11 South Australia Priority Projects, out of a total of 164. It is the third lowest state behind Tasmania and Northern Territory.

Constraints include:

- The South Australian freight agenda lacks a single authoritative to provide leadership and drive progress, resulting in short-term, fragmented decision-making across federal, state and local jurisdictions.
- The responsibility for ensuring the freight network meets the needs of users is uncertain, leading to a lack of prioritisation for future investment in South Australian infrastructure.
- There is no clear champion for the freight sector (rail, sea, air, road), federal or state.
- Funding (federal, state, local, private) sources often cause delays in infrastructure delivery due to difficulties in reaching agreements on who pays for what.

Urgent action is imperative to overcome the challenges at hand.

RECOMMENDATIONS:

- Adopt Grattan Institute 'Potholes and pitfalls: how to fix local roads' Report recommendations:
 - Boost funding for local roads.

- Ensure untied funding goes where it is needed most.
- Make tied funding less onerous for councils.
- Give councils more help to manage their roads.
- Create a forum of civil contractor experts to assist planning and implementation of a South Australian plan to compliment the Grattan Institute 'Potholes and pitfalls: how to fix local roads'.
 - Civil Road Contractors are best placed to determine maintenance and or re-construction needs of our roads. These contractors are best placed to inform any infrastructure plans to support local road recovery.
- Improve mechanism required to activate Federal Government Major Business Case Funding for South Australia.
- Foster stronger State leadership and coordination within the freight and infrastructure sector.
- Ensure bipartisan support for freight and infrastructure plans, where business cases and feasibility studies are shared openly with stakeholders and construction on approved projects starts immediately.
- Optimize the maintenance and construction of existing assets such as roads, airways, waterways, and railways through early engagement with civil industry and efficient procurement, construction methods in order to enhance productivity.
- Investigate what is required to provide a conducive atmosphere for private-sector investors.
- CCF SA acknowledges and commends the Federal Government's 2023 November announcement and commitment to double every local council's road maintenance program however CCF SA suggests this doubling remains inadequate given the maintenance backlog, particularly where road assets require full reconstruction rather than maintenance.
- South Australian rail/light rail review.
 - The outdated road and rail infrastructure on Eyre Peninsula places a huge 'handbrake' on the potential of that region. In the long-term, intermodal transport that separates heavy freight vehicles from commuters is an initiative that is likely to enhance the state's economy.
- Greater rail/road grade separation in transport corridors, as well as increased quality of the road network needs to be a priority.
- Key regional freight routes should also be a top priority, e.g. National Highway 1 (Augusta Highway).
- Truro Bypass and Hahndorf Township Improvements and Access Upgrade Projects must remain on the infrastructure project list for South Australia.

CHAPTER 5 | ENABLING INFRASTRUCTURE

Q 3. Section 5.2 | **Water supply** – How can we enable a sustainable and affordable water supply into the future?

HOUSING DEVELOPMENT AT RISK – NORTH OF GEPPS CROSS.

CCF SA is receiving reports from industry that there are alarming SA Water and sewer infrastructure capacity issues across South Australia metropolitan areas. The northern suburbs are of particular concern where developers are now forced to consider temporary utility solutions as SA Water is not in a position to guarantee service.

So bad is this position that Developer Agreement Formal Instruments (DAFIs) are now being delayed or developers told DAFIs cannot be approved. This concern extends to northern suburbs north of Gepps Cross.

This emergency situation is not just impacting for large developers, small individual private developers are at risk also of purchasing and holding land which can now no longer be subdivided, this compounds South Australia's housing crisis.

HONOUR CURRENT STATE BUDGET COMMITMENTS

SA Water Infrastructure Projects are a critical sector for the civil infrastructure industry. Last years' State Budget was underspent by \$26 million for existing projects and annual programs. Due to funding constraints, a number of key projects and programs have also been reprofiled to a later completion date. Estimated capital investment in 2022-23 was \$607.8 million which is \$28.8 million lower than budget mainly due to revised timing for third party works for the Department for Infrastructure and Transport for the Fleurieu connections projects.

The Federal Budget 2023-24 states: *"Environment and Water — projected to decrease by \$99.1 million primarily reflecting reduced expenditure relating to time-limited projects completed in conjunction with the Commonwealth Government, including sustainable rural water use and infrastructure programs which are expected to be finalised by 30 June 2024"*. It goes on:

"Significant capital investments budgeted in 2023-24 and across the forward estimates include SA Water's Mount Bold Dam safety upgrade, Kangaroo Island desalination plant and Eyre Peninsula desalination augmentation, and SAHA's affordable housing initiative and public housing improvement program."

These above projects must not be reprofiled further, as current delays have already heavily impacted civil contractors. State Budget 2023-24 Agency Statements — Volume 2, page 141 states:

"The program includes additional investment to replace the south gates of the Patowalonga Lake System, supporting flood risk mitigation through the ongoing regulation of water movement within the lake. There is also additional funding in 2023-24 for railway bridge repairs and remediation at Currency Creek, Hindmarsh River, Watson Gap, Tookayerta Creek and Finniss River to support the operation of the SteamRanger Heritage Railway between Mount Barker and Victor Harbor." Table 5.5 as per 2023-24 Budget Papers, chapter 5: Government Businesses page 72 *"Significant capital investment in 2023-24 includes:*

- *SA Water's investment program of \$854.6 million, comprising major projects such as the Kangaroo Island desalination plant, Eyre Peninsula desalination augmentation, Morgan Whyalla pipeline replacement, Bolivar wastewater treatment plant capacity upgrade, and various other annual capital maintenance and upgrade programs."*

Table 5.5: Capital investment programs (\$ million)

	Estimated completion quarter	2023-24 Budget	Estimated total cost
SA Water major projects			
Baroota Dam safety	Mar 2025	10.0	12.3
Bolivar wastewater treatment plant capacity upgrade	Sep 2025	37.0	47.2
Eyre Peninsula desalination augmentation	Mar 2026	54.1	330.0
Kangaroo Island desalination plant	Jun 2024	73.3	147.7
Morgan Whyalla pipeline	Dec 2023	40.9	61.8
Northern Adelaide irrigation scheme	Jun 2023	26.9	155.1
Tea Tree Gully sustainable sewers program	Dec 2025	15.1	61.2
Third party works – Main South Road duplication from Seaford to Aldinga	Sep 2024	12.6	18.9
Third party works – North-South Corridor – River Torrens to Darlington	Sep 2024	13.6	61.7
Third party works – Victor Harbor Road duplication	Jun 2024	17.0	25.8
Other major projects		10.3	n.a.
Total SA Water major projects		310.8	n.a.

Continued Table 5.5 as per 2023-24 Budget Papers, chapter 5: Government Businesses page 73

	Estimated completion quarter	2023-24 Budget	Estimated total cost
SA Water annual programs			
Asset renewal	n.a.	17.9	n.a.
Environmental improvement	n.a.	23.7	n.a.
Information technology	n.a.	47.6	n.a.
Mechanical and electrical renewal	n.a.	69.8	n.a.
Network extension	n.a.	39.6	n.a.
Networks growth	n.a.	28.7	n.a.
Pipe network renewal	n.a.	101.8	n.a.
Safety	n.a.	27.3	n.a.
Services reliability management	n.a.	10.2	n.a.
Structures	n.a.	64.1	n.a.
Water quality management	n.a.	39.2	n.a.
Other annual programs		14.3	n.a.
Total SA Water annual programs		484.2	n.a.
Total SA Water contributed assets		20.5	n.a.
Total SA Water leases		39.1	n.a.
Total SA Water		854.6	n.a.

ALTERNATIVE FUNDING ARRANGEMENTS

To finance the necessary infrastructure for urban water systems, there are a variety of potential strategies that may be employed. As concerns over water scarcity, environmental degradation, and infrastructure costs continue to grow, users will likely face higher water prices in the future.

South Australia will need to consider the full cost of water when making decisions, and water prices will reflect the true cost of water services.

Investigations should be undertaken to support private investment in water infrastructure projects.

Federal conversations have commenced regarding the possibility of using superannuation funds to address funding gaps in infrastructure. While investments must meet the risk/return profile outlined by legislation, infrastructure can be a viable option for investors seeking appropriate returns. Over the past two decades, Australia's superannuation funds have grown significantly, offering a potential source of capital for infrastructure projects.

South Australia should investigate the needs of private investors to make water infrastructure attractive.

CCF SA the practice of passing on capital costs to developers and clients is only justifiable if a compensation or buy-back scheme is put in place to reimburse water infrastructure investors.

RECOMMENDATIONS

EMERGING EMERGENCY CAPACITY CONCERNS:

- The submission of the SA Water Regulatory Business Plan 2024-2028 to Essential Services Commission of South Australia (ESCOSA) for review and approval marks a crucial moment in the effort to address the issues that have been hindering the growth of industry, housing and service delivery due to infrastructure shortages. It is critical that the plan be thoroughly reassessed to ensure that it effectively addresses these concerns. Any necessary corrective measures should be implemented promptly to achieve the desired goals.
- Map 'at risk suburbs' and develop a strategy to support identified suburbs water needs where current infrastructure is at capacity. Current capacity issues are preventing and or delaying housing developments in key north metro areas of South Australia. This matter will only worsen without intervention and water infrastructure plan to address it.

GENERALLY:

- Activate discussion and planning today regarding future metro and regional desalination and wastewater/sewer treatment plants. It is suggested that many areas of South Australia are already at capacity and or quickly approaching capacity.
- Investigate and implement changes to support greater private investment in water infrastructure. CCF SA the practice of passing on capital costs to developers and clients is only justifiable if a compensation or buy-back scheme is put in place to reimburse water infrastructure investors.
- Continue investigations to diversify sources of water which will strengthening water supply systems from potential damages of droughts and floods. Some alternative options for supply include:
 - reusing water that already exists, such as sewage and stormwater,
 - creation of new water through desalination.
- Maintenance and operating programs are forecast and undertaken as planned and budgeted.
- Form an infrastructure industry forum focusing on identifying productivity, efficiency and innovation opportunities.
- Explore the potential of digital infrastructure and data analytics in aiding pre-emptive measures against potential asset or pipe failure.
- The use of sensing technologies and metering to gather system information in real-time for asset management and customer service.
- Incentives to explore new materials and innovations to improve asset life, reliability and replacement.
- Investigate stormwater ownership, retrieval, treatment and re-use opportunities. Investigations should be undertaken to support private investment and or user pays frameworks in water infrastructure projects.
- Improve competition and integration among water, energy, and telecommunication agencies.
- Upgrading, improving, and digitizing existing assets as a strategic priority to improve customer engagement and service feedback.
- Increase water conversation community awareness.
- Incentivise business/commercial water reduction achievement.

CHAPTER 5 | ENABLING INFRASTRUCTURE

Q 4. Section 5.3 | **Energy transmission** – How do we realise the opportunities and mitigate risks with transforming our transmission and distribution infrastructure for the future?

No contribution at this point

CHAPTER 5 | ENABLING INFRASTRUCTURE

Q 5. Section 5.4 | **Digital connectivity** What are the barriers to increased adoption of digital technology to improve productivity?

No contribution at this point

CHAPTER 5 | ENABLING INFRASTRUCTURE

Q 6. Section 5.5 | **Resource exports** - What investments could unlock the value of South Australia's resources?

No contribution to this question

CHAPTER 6 | LIVEABLE AND WELL-PLANNED PLACES

Q 7. Section 6.1 | **Coordinated planning** – How can South Australia better coordinate infrastructure investment to support a growing population?

REFER GARP CCF SA SUBMISSION RECOMMENDATIONS: 7, 8

CCF SA maintains that infrastructure provision be planned, developed, and implemented in a coordinated manner by all levels of government, state, regional, and local, with the input of the civil, building and development industry, even in master planned zones.

The government has established an Infrastructure Planning and Development Unit (IPDU) to help drive residential developments and coordinate infrastructure investment. The Unit is to be staffed by five full-time equivalent employees and will be charged with coordinating the provision of utilities such as electricity, water and sewerage, and public infrastructure such as roads and schools.

CCF SA recommends this new IPDU be afforded greater resources, budget and power to ensure supporting infrastructure is planned and delivered as efficiently as possible.

RECOMMENDATIONS

- Ensure the new Infrastructure Planning and Development Unit (IPDU) has the resources, budget and power to deliver its objectives. Related forward works plans driven by the IPDU must be transparent and communicated readily (refer GARP recommendations 7 & 8).
- Investigate how best civil industry feedback can be captured and then can contribute directly to the IPDU. It is imperative to involve industry intelligence to ensure highest productivity and outcomes.

CHAPTER 6 | LIVEABLE AND WELL-PLANNED PLACES

Q 8. Section 6.2 | **Affordable housing** – What can be done to support sufficient, fit-for-purpose housing to improve housing affordability?

RECOMMENDATIONS

- Continue to reduce red tape, levies and developer/construction pass through costs
- Ongoing planning reform to fast-track approvals.
- Greater consideration of master plan opportunities.
- Investigate modular construction technology, including manufacturing/construction here in South Australia.

CHAPTER 6 | LIVEABLE AND WELL-PLANNED PLACES

Q 9. Section 6.3 | **Public transport** – How can we improve public transport services across Adelaide and outer metropolitan areas to encourage greater patronage?

No contribution at this point

CHAPTER 6 | LIVEABLE AND WELL-PLANNED PLACES

Q 10. Section 6.4 | **Health and wellbeing** – What investments would support a more efficient and productive health system that meets our growing and changing needs?

RECOMMENDATIONS

- Refer recommendations to 5.1 and 5.2 of this document.

CHAPTER 6 | LIVEABLE AND WELL-PLANNED PLACES

Q 11. Section 6.5 | **Education and skills** – How can infrastructure support improved education and skills outcomes for South Australia?

The State Government has a once in a once-in-a-generation opportunity to create a sustainable South Australian civil construction workforce. This requires meaningful and creative reform of skill development, training approaches and worker engagement (whole of population activation).

RECOMMENDATIONS

Workforce forecast to inform education and skills providers:

- Develop an overarching workforce plan supporting the infrastructure needs of South Australia. Specific projects which should have immediate focus include: Hydrogen, Northern Water, Torrens to Darlington Tunnels Project, housing initiatives (affordable and new developments) and Women's and Childrens Hospital.
 - Focusing an initial workforce plans on these projects will take into account impacts on other infrastructure needs across the State include road maintenance and construction, private infrastructure projects, utility maintenance and construction (water, electricity, gas, communications) and both other private and public housing projects.
- Investigate and support civil infrastructure apprenticeships in lieu of Federal Funding shortfalls, including State Government engagement of GTO civil apprentices on State Government infrastructure projects.

Activate State Government Land Banks:

- To support civil infrastructure workforce development needs as a State priority supporting the construction and maintenance needs of our states assets:
 - Create a Soil Management Training School (requires substantial land bank with access to accept spoil) which can be activated and resourced by to industry associations, not for profit Registered Training Organisations (RTO) to host Civil Apprentices during project inactivity. *AND/OR*
 - Provide access to State Government land holdings to industry association, not for profit Registered Training Organisations (RTO) to facilitate large scale mobile plant, infrastructure and tunnel support work training.
 - Renewal SA to utilise civil apprentices to maintain and prepare land holdings under the supervision of contractors/industry association, not for profit Registered Training Organisations (RTO) to mitigate suspension caused by inconsistent procurement\project pipeline of work.

General Skill and Training related recommendations:

- Direct Government Agency engagement of apprentices via GTO's on Government Projects.
- Government Agency financial support via wage subsidy for Civil Apprenticeship undertaking 'Civil Train Site Time' program to avoid suspension triggered by inconsistent infrastructure pipeline of work. Involves apprentices attending live works site or soil management facility to continue training and build operational hours on plant equipment under training supervision.
- ABS ANZSCO to recognise all civil occupations as Trades (group 3).
- Inclusion of Civil Apprenticeships on National Skill Needs List and South Australian equivalent lists.
- Fully fund micro-credential and other innovation civil skilling programs.
- Support youth entry into the civil industry via fully funded Civil 'Immersion Programs' in Schools by 2024.
- Civil Apprenticeships receive fair and equitable distribution of funding in comparison to traditional trades. Including civil apprentice access to Trade Support Loans.
- Enhanced industry participation targets supporting SME businesses and employment of Torres Strait Islanders, Aboriginal people, women and youth.
- Funding support for industry programs to retain aging workers and women in civil.
- Increased civil industry-focused training incentives for workers and civil businesses.
- Refer to recommendations made at Q 23. Section 10.1 | **Planned pipeline** – How can government and industry work together to support the supply of skilled labour needed to deliver a transparent infrastructure pipeline? within this document.

CHAPTER 6 | LIVEABLE AND WELL-PLANNED PLACES

Q 12. Section 6.6 | **Cultural, tourism and recreational facilities** - How can we sustainably grow these sectors to realise greater benefits for visitors and residents?

No contribution at this point

Chapter 7 | Accessible and inclusive infrastructure

Q 13. Section 7.2 | **Regional and remote areas** – How can we think differently about infrastructure investment to support equitable access and a more inclusive society?

RECOMMENDATIONS

- Refer recommendations to 5.1 and 5.2 of this document.
- To support digital and utilities needs consider Infrastructure Partnerships Australia 'Remote communities, Improving access to essential services' Report, published 2022 [Remote communities: Improving access to essential services – Infrastructure Partnerships Australia](#). An extract from the report states:
 - *To fully realise the potential of emerging technologies and opportunities, Australia's governments need to agree to an ambitious program of reform to remote service delivery. This should comprise:*
 - *commitment from all governments through National Cabinet to establish minimum standards of service delivery for all Australians across water, energy and telecommunications, and report on their performance against these standards*
 - *evolution of CSOs into Infrastructure Partnerships Australia's proposed new model – Community Infrastructure Partnerships (CIPs) – which take a user centric, technology-first and collaborative approach to service delivery in remote areas*

- *commitment from governments to fund and finance the investments in remote infrastructure required to deliver real change, and*
- *undertake regulatory reforms to enable CIPs, build social licence for change and give local communities greater say in the services they receive.*

Chapter 7 | Accessible and inclusive infrastructure

Q 14 Section 7.3 | **Closing the Gap** – What are the opportunities for infrastructure investment to accelerate attainment of the Closing the Gap targets?

RECOMMENDATIONS

- Review current Industry Participation Plan (IPP) and Tailored Industry Participation Plans (TIPPP) to ensure effectiveness and achievement of policy goals.
- Adopt recommendations made in the Civil Contractors Federation Australian Skills Guarantee – Procurement Connected Policy Consultation Working Draft Submission to ensure Commonwealth Projects support civil apprenticeship employment. Refer appendix.
- Review funding and incentives to support businesses who address 'closing the gap' targets.
- Improve funding and support of private, not for profit Registered Training Organisations who offer pre-employment training and programs.
- Fund and support work experience placement programs. Requires rigor and governance to ensure program achieves employment outcomes.
- Review the effectiveness of Workforce Australia and other Government employment service providers.
- Improve funding to business, training providers operating/offering 'work for the dole' Workforce Australia programs. Ensuring job outcomes are attached to program support.

Chapter 8 | A decarbonised, sustainable economy

Q 15. Section 8.1 | **Green industries** – What infrastructure investments will support industries to transition to a global net zero future?

RECOMMENDATIONS

- Improved use of, and ongoing investigation to ensure, technical specifications support the use of recycled materials, products and technologies.
- Improved recognition of South Australian owned business who invest in the use and/or manufacture of recycle materials, reuse, repurpose, green energy equipment, plant and vehicles.
- Improved training to support the acceptance, use of recycled and alternative products.
- Increase funding and improve promotion of Green Industries SA funding opportunities. They state on their website: *"Green Industries SA provides funding to unlock the potential of the Circular Economy, develop infrastructure to process and create new products from waste, seed funding for new technologies, and commercialise research in South Australia. Funding is targeted to help businesses, industry and government to understand, develop and implement cost saving waste management, resource efficiency and lean production measures to improve productivity and environmental performance."*
- Consider incentivising or rating tender submissions accordingly where transition to net zero objectives are supported.

Chapter 8 | A decarbonised, sustainable economy

Q 16. Section 8.2 | **Decarbonised energy system** – How do we maintain an affordable, reliable and secure energy system through the energy transition?

No contribution at this point

Chapter 8 | A decarbonised, sustainable economy

Q 17. Section 8.3 | **Transitioning transport** – What are the most significant challenges for decarbonising transport and how do we address them?

No contribution at this point

Chapter 8 | A decarbonised, sustainable economy

Q 18. Section 8.4 | **A circular economy** – What action is needed to achieve a circular economy in South Australia?

RECOMMENDATIONS

- Refer recommendations as per Q 15. Section 8.1 | **Green industries** – What infrastructure investments will support industries to transition to a global net zero future? in this document.

Chapter 8 | A decarbonised, sustainable economy

Q 19. Section 8.5 | **Infrastructure delivery** – What measures can be taken to enable the infrastructure industry to decarbonise?

RECOMMENDATIONS

- CCF SA suggest further investigation into the recommendations proposed in the *'Decarbonising construction: Putting carbon in the business case – Infrastructure Partnerships Australia'* report. This report suggests the following and warrants consideration regarding impact and feasibility for South Australian infrastructure:

An embedded (or embodied) carbon 'base case' should be included in all business cases for infrastructure projects and programs over \$100 million in capital cost. This should be mandatory for all such projects, with government retaining the option to 'compete' a lower carbon outcome through detailed design and procurement. This would establish a framework to move infrastructure procurement to a Time, Quality and Cost + Carbon setting.

This proposal has been developed as a discrete policy solution to address the lack of clarity on how the Australian infrastructure sector will reduce the carbon embedded in the vast amounts of steel, concrete and other materials required to deliver the upcoming project pipeline. This proposed reform is targeted specifically at the pre and early stages of a project to consider its carbon footprint in construction, rather than an asset's operational emissions, which are well established through tools like the Design/As-Built IS Rating Scheme.

Through Infrastructure Partnerships Australia's engagement on this report, a critical issue emerged. The pathway to reduce the carbon embedded in the vast amounts of steel, concrete and other materials required to deliver the infrastructure pipeline is unclear. Both the scale of this issue and who bears accountability are also remarkably unclear. Without

reform, the benefits of the coming wave of infrastructure construction could be undermined by the significant economic and environmental costs of unnecessary embedded carbon.

A key issue identified in the development of Infrastructure Partnerships Australia's Decarbonising Infrastructure report was that for the most part, most of the carbon embedded into a project during its construction, has been determined during the early planning and design phases of the project – before it becomes shovel ready.

In a Minimum Viable Product (MVP) form, a carbon base case could be built through simple metrics like estimated volume of concrete, aggregate and steel – and thus carbon – to be used in construction, based on other asset characteristics and parameters set out in the business case. Once tested and implemented, the carbon base case could be periodically refined over time, as assessing embedded carbon on major infrastructure projects becomes more sophisticated. Simply put, government agencies will be able to utilise the carbon 'base case' dataset built up over time to inform future work.

As a prospective project reaches procurement, tenderers could – at government's discretion – be asked to bid a lower carbon option than the carbon base case put forward in the business case. Procuring agencies could then take embedded carbon into account in the assessment of bids, alongside the traditional metrics of time, quality and cost. Project planning and procurement stages will, of course, introduce further complexities as a project progresses through detailed design, or becomes subject to a significant variation. However, this is not a reason for inaction – in the same way that variations for cost and scope are treated, the carbon base case should be too.

Following construction completion, the amount of carbon used, measured by the same metrics used to calculate the base case, is reported back to the strategic planning and procuring agencies, as well as other embedded carbon factors accounted for in the project. This reporting should then feed into strategic planning agencies carbon base case iterations, targeting a reduction in the carbon base case on similar projects over time. See Figure 1 for illustrative purposes for the possible lower-carbon solution that could be achieved in a procurement scenario.

Proposed Mechanism for Reform

States and territories – through their strategic planning and procuring agencies – are best placed to drive this reform, and be responsible for tracking and reporting on data. However, there is a strong case for the Federal Government to make infrastructure funding contingent on adherence to this model – being the inclusion of a carbon base case in project business cases. This goes beyond governments procuring lower-carbon infrastructure, it is also an opportunity for governments to use this policy reform as a lever to 'buy innovation' in design and construction processes and materials.

It also provides an imperative for design efficiency – a significant benefit in the face of growing supply constraints and substantive cost escalations.

Common standards and guidelines for calculating a carbon base case will make this reform a long-term success. Whether in an MVP project drawing on simple concrete and steel metrics, or a more sophisticated base case, there are already many operational tools and technology solutions developed by industry experts – both in Australia and overseas – that define, measure, and estimate carbon inclusion. Governments can, and should, take a coordinated approach to investigating and agreeing consistent standards and tools for implementing the carbon base case methodology – as seen with the STA's Klimatkalkyl carbon calculation tool – and can build on existing work such as the standards set out in PAS

2080 or the IS Rating Scheme. However, establishing a common standard should not delay implementing carbon base cases in project planning.

Chapter 9 | Improved resilience

Q 20. Section 9.1 | Planned resilience – How do we better account for the impacts of climate change in our infrastructure to support improved resilience?

Through the Emergency Management Act 2004, the State Emergency Management Committee (SEMC) leads and oversees:

- emergency management planning
- preparing and reviewing the State Emergency Management Plan
- conducting risk assessments
- assuring emergency management arrangements.

SEMC is chaired by DPC's Chief Executive. SEMC members are representatives of state government agencies and the Local Government Association.

The State Emergency Management Committee (SEMC) is responsible for strategic oversight of emergency management in South Australia. Within its functions and powers, SEMC ensure that agencies and organisations with functions under the State Emergency Management Plan (SEMP) are aware of those functions and are provided with adequate information for the purpose of understanding and carrying out those functions, and have the capacity to perform those functions. SEMC has endorsed the Emergency Management (EM) Uplift Project which aims to increase the capability and capacity of the EM sector. The Department of the Premier and Cabinet (DPC) has established a project team within Security, Emergency and Recovery Management (SERM) to progress the initiative.

A review of the Functional Support Groups (FSGs) as outlined in the State Emergency Management Plan (SEMP) forms part of this Uplift Project. The review will evaluate the FSGs plans and processes, as well as ensure the FSGs have the appropriate skills and capacity, with consideration of each FSGs responsibilities, resourcing and leadership elements in the event of an emergency. This will be conducted in collaboration with each FSG manager representing the FSGs lead agency, and with consultation from the participating organisations representatives.

The EM Uplift project team will report to the Capability and Capacity Sub-Committee upon the review's completion, which will report to the SEMC.

RECOMMENDATION

As the civil industry is called up during bushfire, flood and trench collapse events CCF SA should be formally recognised as a member of the Functional Support Group. Membership will facilitate support and industry engagement in preparation for climate change related events.

Chapter 9 | Improved resilience

Q 21. Section 9.2 | Critical infrastructure – What are the critical resilience issues that South Australia needs to address?

No contribution at this point

REFER RESPONSE: Q 20. Section 9.1 | Planned resilience – How do we better account for the impacts of climate change in our infrastructure to support improved resilience?

Chapter 9 | Improved resilience

Q 22. Section 9.3 | **Green and blue infrastructure** – How can we better realise the resilience benefits of green and blue infrastructure to inform infrastructure planning?

No contribution at this point

https://cdn.environment.sa.gov.au/greenadelaide/images/Discussion-paper_Urban-greening-strategy_March-2023_V2.pdf

Chapter 10 | A stronger infrastructure industry

Q 23. Section 10.1 | **Planned pipeline** – How can government and industry work together to support the supply of skilled labour needed to deliver a transparent infrastructure pipeline?

REFER GARP CCF SA SUBMISSION RECOMMENDATIONS: 1, 2, 3, 4, 6, 7, 8, 9, 10

Although the civil infrastructure sector supports and utilises three trade qualifications – RII30920 Certificate III in Civil Construction, RII30820 Certificate III in Civil Construction Plant Operations and RII31619 Certificate III in Trenchless Technology – these civil trade qualifications are not recognised as Technicians and Trade Workers under ANZSCO Category 3. Nevertheless, these qualifications are widely accepted as either an Apprenticeship or Traineeship in all Australian states.

Furthermore, all state-based policies (similar to the proposed ASG) that encourage greater trade-level training in the construction sector do include the RII Certificate III Civil construction qualifications listed above, in recognition of the fact that these qualifications can rightfully be regarded as trade-level. We attach in support each State's register of traineeships and apprenticeship detailing the qualifications:

- Western Australian Government Priority Start Policy
- South Australian Pathways Schedule
- Tasmanian [Skills Tasmania \(stategrowth.tas.gov.au\)](https://stategrowth.tas.gov.au)
- Victorian Determination of approved training schemes
- New South Wales <https://online.training.nsw.gov.au/vtu/vto/vtoEnquiry.do>
- Northern Territory <https://nt.gov.au/employ/apprenticeships-and-traineeships/become-an-apprentice-or-trainee/nt-apprenticeships-and-traineeships-database>
- Queensland <https://www.qtis.training.qld.gov.au/Apprenticeship#M>

ANZSCO Unit Groups 7 and 8 have the most civil occupations linked to these qualifications. An extract and amended table below highlights the ABS Occupational Codes with trade occupations (description) that are supported by both RII30920 and RII30820 Cert III trade qualifications.



Australian Bureau of Statistics

Australian Bureau of Statistics - Stats NZ

Stats

NZ

Tataramanga Aotearoa

ANZSCO - Australian and New Zealand Standard Classification of Occupations, 2022 Australian Update

Table 2: Index of Alternative Titles, Occupations in nec Categories, Principal Titles, and Specialisations by occupation code

Released at 11:30am (Canberra time) 22 November 2022

		CIVIL TRADE QUALIFICATION		
Occupation	Description	Category	Cert III RII30920	Cert III RII30820
711112	Concrete Pipe Machine Operator	Specialisation	✓	✓
712111	Elevated Work Platform Operator	Specialisation	✓	
712999	Bitumen Plant Operator	Occupation in nec category	✓	
721211	Construction Plant Operator (General)	Alternative Title		✓
721211	Earthmoving Plant Operator (General)	Principal Title	✓	✓
721212	Backhoe Operator	Principal Title	✓	✓
721213	Bulldozer Operator	Principal Title	✓	✓
721213	Scraper Operator (Earthmoving)	Specialisation	✓	✓
721214	Excavator Operator	Principal Title	✓	✓
721214	Hydraulic Rockbreaker Operator	Specialisation	✓	✓
721214	Trench Digging Machine Operator	Specialisation	✓	✓
721215	Grader Operator	Principal Title	✓	✓
721216	Bobcat Operator	Specialisation	✓	✓
721216	Front-end Loader Operator	Specialisation	✓	✓
721216	Loader Operator	Principal Title	✓	✓
721311	Fork Truck Operator	Alternative Title	✓	
721311	Forklift Driver	Principal Title	✓	
721311	Forklift Operator	Alternative Title	✓	
721912	Linemaker	Principal Title	✓	
721912	Road Marker	Specialisation	✓	
721913	Paving Plant Operator	Principal Title	✓	
721914	Railway Track Plant Operator	Principal Title	✓	✓
721915	Road Roller Operator	Principal Title	✓	✓
721999	Mobile Plant Operators nec	Principal Title	✓	✓
721999	Tunneller	Occupation in nec category	✓	
733111	Tilt Tray Driver	Specialisation	✓	
733111	Truck Driver (General)	Principal Title	✓	✓
733114	Tanker Driver	Principal Title	✓	
733114	Water Tanker Driver	Specialisation	✓	✓
821112	Drainage, Sewerage and Stormwater Labourer	Principal Title	✓	
821113	Earthmoving Labourer	Principal Title	✓	✓
899923	Events Traffic Controller	Specialisation	✓	
899923	Road Traffic Controller	Principal Title	✓	

Table 1 – Extract of, and amendment to: ANZSCO - Australian and New Zealand Standard Classification of Occupations, 2022 Australian Update, Table 2: Index of Alternative Titles, Occupations in nec Categories, Principal Titles, and Specialisations by occupation code, Released at 11:30am (Canberra time) 22 November 2022

Cert III RII30920 Civil Construction General

The RII30920 apprenticeship supports a number of trade qualifications that are required to deliver Australia's infrastructure projects. The qualification has core and elective units of competency that cover the skills for the following eight (8) specialist and one (1) general civil construction streams:

- Stream 1 – Bituminous Surfacing
- Stream 2 – Bridge Construction and Maintenance
- Stream 3 – Pipe Laying
- Stream 4 – Road Construction and Maintenance
- Stream 5 – Road Marking
- Stream 6 – Tunnel Construction
- Stream 7 – Timber Bridge Construction and Maintenance
- Stream 8 – Traffic Management
- Stream 9 – Civil Construction General

Cert III RII30815 Civil Construction Plant Operations and ANZSCO Codes

The ABS has various occupation codes (refer table 1) referencing mobile plant however these are not under main category 3 where other 'trade qualifications' are listed. The qualification has core and elective units of competency that cover the skills of the nominated mobile plant as well as civil construction general foundation skills. Plant Operators are a critical trade to the delivery Australia's Infrastructure Projects.

RECOMMENDATIONS

Refer recommendations Q 11. Section 6.5 | **Education and skills** – How can infrastructure support improved education and skills outcomes for South Australia? within this submission.

Workforce forecast to inform education and skills providers:

- Develop an overarching workforce plan supporting the infrastructure needs of South Australia. Specific projects which should have immediate focus include: Hydrogen, Northern Water, Torrens to Darlington Tunnels Project, housing initiatives (affordable and new developments) and Women's and Childrens Hospital.
 - Focusing on initial workforce plans on these projects will take into account impacts on other infrastructure needs across the State include road maintenance and construction, private infrastructure projects, utility maintenance and construction (water, electricity, gas, communications) and both other private and public housing projects.
- Investigate and support civil infrastructure apprenticeships in lieu of Federal Funding shortfalls, including State Government engagement of GTO civil apprentices on State Government infrastructure projects.

Activate State Government Land Banks:

- To support civil infrastructure workforce development needs as a State priority supporting the construction and maintenance needs of our states assets:
 - Create a Soil Management Training School (requires substantial land bank with access to accept spoil) which can be activated and resourced by to industry associations, not for profit Registered Training Organisations (RTO) to host Civil Apprentices during project inactivity. AND/OR
 - Provide access to State Government land holdings to industry association, not for profit Registered Training Organisations (RTO) to facilitate large scale mobile plant, infrastructure and tunnel support work training.
 - Renewal SA to utilise civil apprentices to maintain and prepare land holdings under the supervision of contractors/industry association, not for profit Registered Training Organisations (RTO) to mitigate suspension caused by inconsistent procurement\project pipeline of work.

Chapter 10 | A stronger infrastructure industry

Q 24. Section 10.2 | **Digital technology** – How can we maximise the productivity benefits of digitising our infrastructure?

No contribution at this point

Chapter 10 | A stronger infrastructure industry

Q 25. Section 10.3 | **Effective procurement** – How can government continue to encourage collaboration and innovation in procurement?

RECOMMENDATIONS

- In order to ensure effective and fair project delivery throughout all phases of a project, including early contractor engagement, completion, and maintenance, it is crucial that the civil industry and related public agencies work collaboratively. Various forums exist to facilitate this collaboration, but it is essential that measurable outcomes are established to ensure that actions are taken and effective procurement is achieved.

- Strengthening the role of the Industry Advocate and the Small Business Commissioner in the oversight of infrastructure contracts by establishing direct channels for procurement related compliance and complaints.
- CCF SA be funded to gather, maintain and report performance measures on all civil infrastructure projects to understand successful approaches to project planning and management.
- Infrastructure policy and delivery models be developed based on industry expertise, data and analysis and with an appreciation for a range of project sizes, risks and opportunities.
- Improve cross communication planning and delivery feedback platform of whole-of-government (EPA, SWSA, DIT, Community).

Ensure efficient, equitable and fair commercial frameworks which benefit THE ENTIRE industry.

- Fair and equitable contract, payment and risk allocation terms within all government contracts and supporting subcontracts.
- Ensure Government procurement contracts maximise participation across all industry tiers.
- Where there is strategic merit, government explores what role it can play to intervene, de-risk projects and build demand sufficiently to attract private capital.
- Government owned entities do not compete with private business for Government works.
- Resolve different commercial models with the potential to attract private sector investment.
- Utilise contracts which incentivise innovation and collaboration, to achieve productivity and quality outcomes.
- Review and revise existing pre-qualification systems used by state agencies to support fair opportunity and encourage the growth Small and Medium Enterprises (SMEs).
- Infrastructure SA to take up its role in elevating the needs of South Australia and redressing inequities in jurisdictional infrastructure funding with independent positioning separate from the government of the day.
- That procurement policies and approaches be harmonised across all levels of government and, where possible, across jurisdictions including local content rules.
- Every South Australian must benefit from their State's civil Infrastructure construction and maintenance. Protect and enhance the viability of its civil industry business – priority focus SME businesses.
- Every South Australian (individuals and businesses) must benefit from civil infrastructure construction and maintenance occurring in their State. For the sustainability and growth of the South Australian Civil Construction industry there needs to be increased active recognition, collaboration across State Government agencies, community and industry.

General recommendations:

- Introduction of evaluation criteria that measures local employment of companies which clearly demonstrates the revenue from projects stays here in South Australia (e.g. payroll tax).
- Develop collaborative principles and compel Government Agencies to adopt these principles to achieve positive civil infrastructure projects and improve community benefits.
- Engage with industry to remove red tape and barriers in Government contracts.
- Fund the development of training courses to assist greater collaboration and identification of innovation.
- Identification of inter-relationships across sectors that impact on infrastructure development, where reciprocity can enhance broader outcomes.
- Remove unreasonable or costly barriers of entry to tenders on State Government infrastructure projects.
- State Government develop sub-contractor friendly contracts which may be used for direct engagement and/or by Principle.
- State Government develops a policy that is very deliberately designed to ensure government work is made available to local SME businesses. Further, Government agencies are compelled to comply with such a policy. A % of works allocated to SMEs.

Chapter 10 | A stronger infrastructure industry

Q 26. Section 10.4 | **Funding and financing solutions** – What are the funding and financing options government should consider in future, to ensure its infrastructure program remains affordable and sustainable?

REFER GARP CCF SA SUBMISSION RECOMMENDATIONS: 3

CIVIL CONTRACTORS FEDERATION AUSTRALIA

Submission into Australian Skills Guarantee Procurement Connected Policy, CONSULTATION WORKING DRAFT

1. INTRODUCTION

The Civil Contractors Federation Australia (CCFA) commends the Australian Government's dedication to utilizing government investments in major projects to help train the upcoming generation of skilled laborers. In order to ensure progress towards this goal, the Australian Skills Guarantee (Skills Guarantee) aims to introduce national targets, whereby at least one in ten workers on Australian Government funded major projects are either an apprentice, trainee or paid cadet. Furthermore, the Skills Guarantee seeks to increase the proportion of women working on major projects in order to reduce gender segregation in the apprenticeship system and promote long-term, sustainable change.

The Australian Skills Guarantee is set to introduce national targets for apprentices, trainees, cadets and women on eligible projects, commencing on 1 July 2024. In support of the implementation of the Australian Skills Guarantee, the department has released draft guidelines for public consultation on the Guarantee Procurement Connected Policy (PCP).

CCF SA expresses gratitude for the invitation to review the draft guidelines and provide valuable feedback. We kindly present the following for your consideration:

2. RECOMMENDATIONS

Recommendation 1 – That the ‘Trade’ and ‘Trades position’ definitions be extended to include Certificate III Civil Construction Trades \ Qualifications.

The Australian Skills Guarantee Procurement Connected Policy, CONSULTATION WORKING DRAFT (the draft policy) refers to ‘trades’ as follows:

“Trade refers to sub-major occupations that are classified as Technicians and Trades Workers. Occupations are classified using the Australian and New Zealand Standard Classification of Occupations (ANZSCO), ABS catalogue no 1220.0, 2021 (Australian Version)”

“Trades positions include roles classified as Technicians and Trades Workers (category 3) under the Australian and New Zealand Standard Classification of Occupations (ANZSCO), ABS catalogue no 1220.0, 2021 (Australian Version)”

The above definitions and therefore the policy do NOT recognise or support Civil Apprentices as they are NOT represented as Technicians and Trades Workers, under ANZSCO Occupational Codes as published by Australian Bureau of Statistics (ABS).



Although the civil infrastructure sector supports and utilizes three trade qualifications – RII30920 Certificate III in Civil Construction, RII30820 Certificate III in Civil Construction Plant Operations and RII31619 Certificate III in Trenchless Technology – these civil trade qualifications are not recognized as Technicians and Trade Workers under ANZSCO Category 3. Nevertheless, these qualifications are widely accepted as either an Apprenticeship or Traineeship in all Australian states.

Furthermore, all state-based policies (similar to the proposed ASG) that encourage greater trade-level training in the construction sector do include the RII Certificate III Civil construction qualifications listed above, in recognition of the fact that these qualifications can rightfully be regarded as trade-level. We attach in support each State's register of traineeships and apprenticeship detailing the qualifications:

- Western Australian Government Priority Start Policy
- South Australian Pathways Schedule
- Tasmanian [Skills Tasmania \(stategrowth.tas.gov.au\)](https://skills.tasmania.gov.au/)
- Victorian Determination of approved training schemes
- New South Wales <https://online.training.nsw.gov.au/vtu/vto/vtoEnquiry.do>
- Northern Territory <https://nt.gov.au/employ/apprenticeships-and-traineeships/become-an-apprentice-or-trainee/nt-apprenticeships-and-traineeships-database>
- Queensland <https://www.qtis.training.qld.gov.au/Apprenticeship#M>

ANZSCO Unit Groups 7 and 8 have the most civil occupations linked to these qualifications. An extract and amended table below highlights the ABS Occupational Codes with trade occupations (description) that are supported by both RII30920 and RII30820 Cert III trade qualifications.

Australian Bureau of Statistics - Stats NZ		Stats NZ	
ANZSCO - Australian and New Zealand Standard Classification of Occupations, 2022 Australian Update		Tatauranga Aotearoa	
Table 2: Index of Alternative Titles, Occupations in nec Categories, Principal Titles, and Specialisations by occupation code		Released at 11:30am (Canberra time) 22 November 2022	
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712111	Elevated Work Platform Operator	✓	
712999	Bitumen Plant Operator	✓	
721211	Construction Plant Operator (General)	✓	✓
721211	Earthmoving Plant Operator (General)	✓	✓
721212	Backhoe Operator	✓	✓
721213	Bulldozer Operator	✓	✓
721213	Scraper Operator (Earthmoving)	✓	✓
721214	Excavator Operator	✓	✓
721214	Hydraulic Rockbreaker Operator	✓	✓
721214	Trench Digging Machine Operator	✓	✓
721215	Grader Operator	✓	✓
721216	Bobcat Operator	✓	✓
721216	Front-end Loader Operator	✓	✓
721216	Loader Operator	✓	✓
721311	Fork Truck Operator	✓	
721311	Forklift Driver	✓	
721311	Forklift Operator	✓	
721912	Linemaker	✓	
721912	Road Marker	✓	
721913	Paving Plant Operator	✓	
721914	Railway Track Plant Operator	✓	✓
721915	Road Roller Operator	✓	✓
721999	Mobile Plant Operators nec	✓	✓
721999	Tunneller	✓	
733111	Tilt Tray Driver	✓	
733111	Truck Driver (General)	✓	✓
733114	Tanker Driver	✓	
733114	Water Tanker Driver	✓	✓
821112	Drainage, Sewerage and Stormwater Labourer	✓	
821113	Earthmoving Labourer	✓	✓
899923	Events Traffic Controller	✓	
899923	Road Traffic Controller	✓	

Table 1 – Extract of, and amendment to: ANZSCO - Australian and New Zealand Standard Classification of Occupations, 2022 Australian Update, Table 2: Index of Alternative Titles, Occupations in nec Categories, Principal Titles, and Specialisations by occupation code, Released at 11:30am (Canberra time) 22 November 2022



Cert III RII30920 Civil Construction General

The RII30920 apprenticeship supports a number of trade qualifications that are required to deliver Australia's infrastructure projects. The qualification has core and elective units of competency that cover the skills for the following eight (8) specialist and one (1) general civil construction streams:

- Stream 1 – Bituminous Surfacing
- Stream 2 – Bridge Construction and Maintenance
- Stream 3 – Pipe Laying
- Stream 4 – Road Construction and Maintenance
- Stream 5 – Road Marking
- Stream 6 – Tunnel Construction
- Stream 7 – Timber Bridge Construction and Maintenance
- Stream 8 – Traffic Management
- Stream 9 – Civil Construction General

Cert III RII30815 Civil Construction Plant Operations and ANZSCO Codes

The ABS has various occupation codes (refer table 1) referencing mobile plant however these are not under main category 3 where other 'trade qualifications' are listed. The qualification has core and elective units of competency that cover the skills of the nominated mobile plant as well as civil construction general foundation skills. Plant Operators are a critical trade to the delivery Australia's Infrastructure Projects.

Recommendation 2 – That the UNSPSC codes be extended to include infrastructure and civil construction categories.

The Australian Skills Guarantee Procurement Connected Policy, CONSULTATION WORKING DRAFT uses UNSPSC Codes to identify those projects covered by the policy:

“Eligible flagship construction projects are those with an estimated procurement value of \$100 million and above (GST inclusive) in the industry categories specified in Appendix C.

Eligible major construction projects are those with an estimated procurement value of \$10 million and above (GST inclusive) in the industry categories specified in Appendix C.”

Appendix C - Building and Construction and Facilities Management industry categories within the scope of the Skills Guarantee, appears to exclude a considerable number of categories that would support most trade components required to construct most flagship \ major construction projects:

- UNSPSC Code 72131700: Infrastructure construction
 - UNSPSC Code 72131701: Highway or road paving or surfacing
 - UNSPSC Code 72131702: Bridge construction
- UNSPSC Code 72103000: Site preparation services
 - UNSPSC Code 72103001: Land clearing services
 - UNSPSC Code 72103002: Land levelling services
 - UNSPSC Code 72103003: Demolition services
 - UNSPSC Code 72103004: Digging services

Incorporating the code listed above and any other codes pertinent to civil, infrastructure, and utility construction warrants due consideration.



Recommendation 3 – That the policy differentiates ‘new entrant’ versus ‘existing worker’ apprentices, where ‘new entrant’ apprentices attract a higher target

The policy appears to treat both 'new entrant' and 'existing worker' apprentices equally, although the outcomes of each differ significantly.

'New entrant' apprentices are individuals who are entering the industry sector for the first time and have the potential to contribute to the growth of the industry's workforce, skills, and trade numbers. On the other hand, 'existing worker' apprentices are those who are already working in the industry and are looking to enhance their existing skills which may improve trade numbers, but not necessarily an increase in workforce numbers.

To effectively increase the number of workers in the workforce through policy, prioritising 'new entrant' apprentices over those who are already established is crucial. Doing so will maximize the benefits of driving demand for apprenticeships.

Recommendation 4 – That the policy introduce a new ‘Overarching Trade Apprentice’ target

Throughout Australia, the shortage of trade apprentices is a pressing concern that demands attention. One potential solution is to establish a comprehensive ‘Overarching Trade Apprentice Target’.

Presently, a flaw in the existing policy target is that some projects may opt to enlist a greater number of administration apprentices \ trainees or similar personnel in lieu of trade apprentices, which does not serve to alleviate the shortage of skilled trade professionals in the industry.

Recommendation 4 – That the policy consider non-binary and other workers who do not identify with the definition provided

The current Policy needs to account for individuals who identify as non-binary and those who do not align with the definition of ‘Woman’ provided. Non-binary refers to individuals who do not conform to the traditional binary of male or female genders and instead identify their gender differently.

The Australian Skills Guarantee Procurement Connected Policy, CONSULTATION WORKING DRAFT, defines a ‘Woman’ as a person who identifies as a woman, regardless of their sex assigned at birth or age.

However, there is no alternative option available in the policy for those who do not fit within this definition. It is crucial to consider how to classify such workers as omitting this can lead to incorrect data sets and impede future decision-making to improve workforce skill and numbers.

Defaulting these workers to a classification of ‘Men’ or ‘Other’ would not be sufficient.

Recommendation 5 – That the policy considers the potential negative impacts and lost opportunities of Suppliers ‘ensuring sub-contractor arrangements impose necessary obligations on the sub-contractors and support the policy purpose’

The Policy nominates that it is the Supplier’s responsibility to ‘ensure sub-contractor arrangements impose necessary obligations on the sub-contractors and support the policy purpose’. However, this policy may need to be reevaluated due to potential risks and limitations:

- There is a high risk of non-completion if the project is less than 3 years (civil) or 4 years (building).
 - The subcontractor \ SME will have to carry to apprentice once the project is complete which may not be commercially viable.
- There is a risk the subcontractor \ SME will not be in a position to meet targets simply due to the available pool of eligible workers, eg aboriginal or those who identify as ‘woman’ apprentices.
- Subcontractors may offer their ‘existing workers’ a Contract of Training to fill apprenticeship targets which generally won’t increase workforce numbers particularly if these workers are mid \ older age.



- There is an opportunity for the Supplier to engage Apprentices directly and utilise subcontractors to 'host' or supervise apprentices as per the Training Contract. The Supplier often has a substantial business operation which has far greater resources to support:
 - Improved commencement of apprentices
 - Improved completion of apprentices
 - Work, health and safety needs of apprentices
 - Fast track apprentice completion to occur on projects less than that of the Training Contract

Recommendation 6 – That the policy support Freedom of Association legislation

It is imperative that the policy provides support for legislation pertaining to Freedom of Association. Compliance with the policy and its expectations is expected in order to benefit all apprentices and their employers, regardless of whether or not they are affiliated with or members of any particular group or organization.

3. Consultation and Close

The Australian Skills Guarantee Team is hereby presented with the formal submission of the Civil Contractors Federation Australia, which respectfully seeks further consultation opportunities on matters such as: ongoing policy development, refining supporting documents, implementation, monitoring, compliance and enforcement and the development of the reporting platform.

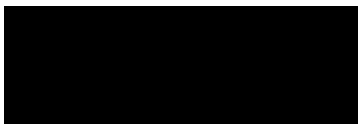
CCF is looking forward to productive discussions with the ASG Team, concerning both the aforementioned recommendations and any other relevant issues.

Should you have any questions or where recommendations require clarification please contact the following:

Rebecca Pickering

Chief Executive Officer

Civil Contractors Federation South Australia (CCF SA) on behalf of Civil Contractors Federation Australia (CCFA)





Overview of Civil Contractors Federation Australia

The CCFA is the peak national representative body for the Australian civil construction industry comprising over 1,900 civil construction companies across the construction supply chain in all jurisdictions ranging from tier 1, 2, 3, 4, SME's and one-person ABN holders.

With offices in every major capital city, the CCFA is best positioned to promote, cultivate and advance positive and relevant civil construction industry policy in Australia for the benefit of all Australians by working collaboratively with government and industry at all levels under its federated structure.

The CCFA membership is responsible for the construction and maintenance of Australia's civil infrastructure, including roads, rail, bridges, water supply, pipelines, drainage, ports, and utilities, and also play a vital role in the residential and commercial building construction industry by providing earthmoving and land development services including the provision of power, water, communications and gas.



CHIA SA Submission on Discussion Paper for *South Australia's 20-Year State Infrastructure Strategy*

CHIA SA and the Community Housing Sector

The Community Housing Industry Association of SA (CHIA SA) is the peak body representing community housing providers (CHPs) in South Australia. CHIA SA contributes to policy development, coordinates information and responses to sector-wide issues, and advocates for a high-quality social and affordable housing system in SA that capitalises on the benefits of a multi-provider approach.

Our members provide housing services to over 25,000 South Australians. CHPs offer a range of housing services, including:

- Specialised accommodation for people with disability
- Affordable housing (with rent capped at 75% of market rates, supporting people on lower incomes)
- Social housing (for people who cannot access housing through affordable housing or private rental, owing to particular housing needs)
- Supported housing for previously homeless people and those requiring specialised supports to sustain their housing

CHPs are not-for-profit organisations who develop and operate properties owned outright and manage properties leased from the SA Housing Trust, SA Health and other parties, in pursuit of their organisational mission. CHPs provide rental accommodation to people and families experiencing heightened vulnerability, with an emphasis on community connections and development.

CHPs form part of the social and affordable housing system in South Australia (making up more than 25% of properties in the system) alongside public housing. As stand-alone non-government organisations, CHPs can offer a range of differing housing offerings within the multi-provider system operating in South Australia. This diversity of offerings increases choice for tenants in the system, while diversifying funding options away from reliance on government capital provision.

Similarly to public housing, community housing accommodates priority access to those in greatest need. In 2021-2022, 95.6% of new community housing allocations in SA were to households in greatest need.

As organisations committed to providing stable housing as a crucial determinant of health and foundation for addressing life's challenges, CHPs have a strong interest in ensuring a suitable and stable supply of affordable housing.

Our response to the *Discussion Paper*

We welcome the opportunity to provide input on the development of *South Australia's 20-Year State Infrastructure Strategy*. As the discussion questions cover a broad range of strategic objectives, our



response is limited to the questions of greatest relevance to our sector and the interests of our members.

Our submission also draws upon the CHIA SA contributions to the *Greater Adelaide Regional Plan* development consultation. In due course, we would welcome increased clarity on the expected alignment and coordination between the development and implementation of the GARP and the *20-Year State Infrastructure Strategy*.

Chapter 4 **The economic context**

Section 4.4 Our productivity challenge

1. What opportunities should we consider to improve South Australia's economic growth?

In considering opportunities to facilitate economic growth in SA, the role of appropriate and affordable housing in close proximity to employment growth areas and training opportunities should be considered. Supporting and incentivising skilled workers to contribute to our local industries with housing options in communities that are well equipped with accessible transport and amenities will in turn support strong economic activity. [The South Australian Economic Statement](#) acknowledges that liveability and making SA 'the most attractive destination for skilled workers' to drive economic growth requires appropriate and affordable housing in metropolitan Adelaide and regional destinations.

[The South Australian Economic Statement](#) also acknowledges that a 'well-functioning housing system that provides access to appropriate, affordable and secure housing can enable better economic and social outcomes'. Research commissioned by the national Community Housing Industry Association (CHIA) in 2019 found that, in some cases, the economic benefits of social and affordable housing 'can equal the funding gap that currently prevails in social and affordable housing provision'.¹ Subsequent research in 2022 substantiated the economic and social costs of the shortfall in social, which found that '[t]he total current cost of the affordable housing shortage in SA is \$38 million per annum, rising to \$69.3 million per annum by 2036 if the current under-investment in social and affordable housing persists.'² The report provides a breakdown by region:³

¹ Christian Nygaard, '[Social and Affordable Housing as Social Infrastructure: A Literature Review for the Community Housing Industry Association](#)' (Centre for Urban Transitions, Faculty of Health, Arts and Design, Swinburne University of Technology, 7 November 2019), 2

² Christian A. Nygaard, '[Cost of Inaction: Social and Economic Losses Due to the Social and Affordable Housing Shortage](#)' (Melbourne: Centre for Urban Transitions, Swinburne University of Technology, 31 March 2022), 8.

³ Ibid, 9.



Table 5 Highest social and economic cost in SA by SA4 (all)

SA4_name	GCCSA	Annual cost (2020)	Annual cost (2036)
Adelaide - South	Greater Adelaide	\$8,603,705	\$15,756,868
Adelaide - North	Greater Adelaide	\$8,336,539	\$17,507,582
Adelaide - Central and Hills	Greater Adelaide	\$8,241,970	\$13,643,267
Adelaide - West	Greater Adelaide	\$6,760,347	\$13,879,640
South Australia - South East	Rest of SA	\$3,108,326	\$4,084,620
Barossa - Yorke - Mid North	Rest of SA	\$1,663,913	\$2,249,995
South Australia - Outback	Rest of SA	\$1,314,184	\$2,132,019

Note: there are 7 SA4s in SA. * In the top 10 nationally by *current* annual social and economic cost due to the affordable housing shortage.

Source: Author's *wider benefits* calculations based on Nygaard (2019a), Nygaard and Kollmann (2020), Nygaard and Kollmann (2021), and Nygaard (2021); housing shortage data provided by Troy et al (2019).

The economic impact of a continued failure to provide adequate social and affordable housing cannot be overlooked. We acknowledge the support of Infrastructure SA in the development of the '[SIGMAH' social and green benefits calculator](#)⁴ by CHIA and partners. We also note that AHURI research on housing economics analysis commissioned by Infrastructure SA in 2022 has provided an evidence-based framework to inform housing policy and investment based on the population-wide impacts of providing equitable access to appropriate and affordable housing. We believe that the elements of the *20-Year State Infrastructure Strategy* directed at supporting economic growth should be informed and explicitly supported by the substantiations of the wider social and economic benefits of social and affordable housing provided by these resources.

Chapter 6 Liveable and well-planned places

Section 6.1 Coordinated planning

7. How can South Australia better coordinate infrastructure investment to support a growing population?

We note the discussion paper's acknowledgement that infrastructure planning needs to be sufficiently broad and well-integrated to incorporate all elements and services required to support population growth, at the right time and scale. In due course, we look forward to clarification on how the 20 Year Infrastructure Strategy will be coordinated and aligned with the development and implementation of the Greater Adelaide Regional Plan.

The needs of a growing population are more complex than a matter of scale of demand on infrastructure and services, but also encompasses changing characteristics of needs; including but not

⁴ See also Christian Nygaard and Trevor Kollmann, '[Social and Affordable Housing in Australia: A Social Cost-Benefit Analysis](#)', Report produced for the Community Housing Industry Association (Melbourne: Centre for Urban Transitions, Faculty of Health, Arts and Design, Swinburne University of Technology, October 2023).



limited to the specific needs of an ageing population. The importance of supporting social cohesion and inclusion will only become more pronounced as the population grows. Ensuring that investments to support population growth can target social inequality and support inclusion and equitable outcomes – for example, by meaningfully supporting the specific needs of people with disability and other marginalised groups – will require targeted and comprehensive consultation with key stakeholders and bodies with appropriate expertise.

Over the coming years as population growth is supported—with increasing suburban density with infill developments, the expansion of metropolitan areas via greenfield developments, and the growth of satellite cities and regional hubs – the importance of well-equipped localised communities can only increase. In this respect, we echo our response to the concept of ‘living locally’ covered in the *Greater Adelaide Regional Plan Discussion Paper*. Whether through connection to existing public transport routes and infrastructure or newly developed options, reliable and effective public transport options are an essential feature of outer ring and greenfield developments that can support living locally and reduction in car use. Higher speed connections to the CBD and other employment hubs should be a priority to support the longer distance travel required to create accessible greenfield communities. This should also be coordinated and approached holistically to deliver trade-off wellbeing benefits to communities; such as substituting land use for car parking spaces with green spaces, leisure facilities or other amenities.

To support a positive reception of infrastructure investment and land use planning, we believe that communities will benefit from strategies to increase public awareness and appreciation of the impact of population growth on existing communities and mitigate resistance to higher density developments. Many Australians enjoy living in low density neighbourhoods with a high proportion of detached dwellings, and common responses to higher density developments to the effect of ‘not in my backyard’ are likely to present an impediment to cohesive neighbourhoods as growth progresses. Transparency of strategies on how this approach will be communicated to communities and stakeholders and carried out in anticipation of potential opposition from residents or local governments would be beneficial.

Section 6.2 Affordable housing

8. What can be done to support sufficient, fit-for-purpose housing to improve housing affordability?

Adequate, well-planned and timely provision of infrastructure is undoubtedly critical to increasing the supply of housing and improving overall affordability of housing developments. However, viewing infrastructure as capable of *supporting* sufficient, fit-for purpose housing risks overlooking the role and of social housing as essential social infrastructure in itself. Initiatives supporting the provision of social housing infrastructure within the strategy would alleviate pressure on the housing market and have an overall positive effect on housing affordability. We note the discussion paper’s acknowledgement of the role of social housing in supporting overall housing affordability, and of various drivers and indicators of increasing unaffordability. We would welcome clear targets and indicators within the *20-Year State Infrastructure Strategy* to measure progress against the objectives of sufficient, fit for purpose housing and improved affordability.



The provision of sufficient, fit-for-purpose housing necessitates that affordable and suitable housing is available within all regions and metropolitan areas. We believe that housing affordability is a requisite element of sufficient and fit-for-purpose housing, not a potential outcome of it.

A conception of appropriate housing also cannot be isolated to individual dwelling serviceability characteristics; but requires well serviced, fit-for-purpose and accessible communities. In this respect, it is crucial that income and employment type should not determine whether households can access housing in neighbourhoods with good access to transport, employment, and amenities. Principles of living locally must inform both master planned greenfield development and approaches to infill; with an appropriate proportion of housing for low to moderate income households throughout all development areas.

We also reiterate our concerns regarding the unaddressed need for fast and reliable transport. A failure to provide adequate public transport options as an essential condition to the establishment of greenfield development will lead to communities that are too inaccessible from the CBD and employment options, and will drive a continued overreliance on car use.

Section 6.5 Education and skills

11. How can infrastructure support improved education and skills outcomes for South Australia?

Improvements to education and skills outcomes will be supported with a range of adequate and accessible training options in sufficiently close proximity to the communities with available housing and employment opportunities. Convenient transport options are a crucial element to ensuring education and skills development opportunities are available to those seeking them.

Chapter 7 **Accessible and inclusive infrastructure**

Section 7.2 Regional and remote areas

13. How can we think differently about infrastructure investment to support equitable access and a more inclusive society?

We note the discussion paper's recognition of the availability, diversity and affordability of housing in regional areas as a key infrastructure gap that constrains our capacity to attract and retain skilled workers; and the key relationship between housing availability and proximity to both local employment and education or skills development opportunities.

Integrated planning and funding coordination needs to take place so that services and amenities can be developed in the right areas at the right time, following the prioritisation of housing availability to support workforce growth where it is needed. We believe that an inclusive society is one where participation is adequately supported, and that this requires appropriate investment that leads to local jobs and strengthened economies that can drive inclusion. It also requires adequate measures to address housing affordability to alleviate the rental stress experienced by key essential workers, which threatens our capacity to mobilise a strong and resilient workforce required to drive infrastructure development and economic growth.



We believe it is important to reiterate that an accessible home—in and of itself—is not sufficient to support inclusion of people with disability. The surrounding social infrastructure within communities is also crucial to supporting liveability for all. Accessibility and inclusive infrastructure cannot be isolated to limited communities or metropolitan areas; but needs to be widespread to enable choice of housing and employment options across locations including in regional and remote areas.

Chapter 10 **A stronger infrastructure industry**

Section 10.1 Planned pipeline

23. How can government and industry work together to support the supply of skilled labour needed to deliver a transparent infrastructure pipeline?

We echo our response to question 13. Collaborative efforts to support the supply of skilled labour for infrastructure delivery will require that full transparency occurs at the earliest possible stages of advanced planning processes. This will be best supported by the full integration of planning for all interrelated supports required—including well-located affordable housing in communities equipped with adequate services and amenities—as well as adequate funding and strong mechanisms for open communication with industry stakeholders.

Crucially, the supply of skilled labour in regions where project pipelines are active will be unduly compromised if widespread unaffordability persists and rental stress continues to [impact key essential workers in all areas](#).

17 November 2023

Mr Jeremy Conway
CEO
Infrastructure SA

By email to: Jeremy.Conway@sa.gov.au

Dear Jeremy,

RE: Submission to the Infrastructure SA Discussion Paper

Consult Australia and Engineers Australia welcome the opportunity to provide feedback to the [Infrastructure SA Discussion Paper](#) on the proposed South Australian 20-Year State Infrastructure Strategy. As a reminder, Consult Australia represents businesses in design, advisory and engineering consultancy, while Engineers Australia represents the profession of engineering. Our submission focusses on the themes from the discussion paper that align with the interests of our members:

- Liveable and well-planned places
- A decarbonised, sustainable economy
- A stronger infrastructure industry.

Liveable and well-planned places

Coordinated planning

Consult Australia and Engineers Australia support Infrastructure SA's commitment to coordinated planning of infrastructure projects including community housing, transportation and health and wellbeing needs. Pipeline certainty and transparency are critical to ensure our members can deliver. Stalling projects, delaying decisions on projects, and fast ramping up of projects does not support the development and growth of the profession, industry confidence, workforce planning, or deliver productivity benefits for the community.

Businesses, and the people within them, cannot maintain high levels of outputs without pipeline certainty. Clients need to be aware of how fast businesses need to make resource cuts when projects are delayed or cancelled and how difficult it is to secure people resources when new projects are announced and released. This job uncertainty does not make the profession attractive and contributes to the high attrition rate from the profession and the industry.

Recommendation: Infrastructure SA, in conjunction with key stakeholders, such as the Housing Infrastructure Planning Unit, host an industry roundtable on future infrastructure projects to provide pipeline clarity for confidence of the market and the profession.

Education and skills

Consult Australia and Engineers Australia recognise the need for infrastructure planning to support the capability uplift of South Australian schools, TAFEs, colleges, and universities. Like many occupations, the engineering profession is facing technological advancements and automation at a rapid rate which is transforming the job market. Our people need access to skills development to remain competitive in the Australian and global markets.

With global and local competition for engineers increasing, South Australia needs to maintain a reputation within the international engineering community as a good place to migrate, and a good place for our Australian-trained engineers to stay. For skilled migrants this needs to include clear pathways to permanent residency and the ability to find employment at a level commensurate with their skills and experience.

Australian tertiary engineering graduates are at one of the lowest levels in the [OECD](#). We need to improve the uptake of Australian engineering education, particularly when factoring in the pandemic. The pandemic contributed negatively to engineering courses with the opportunities to complete practical assessments removed and the likelihood of international students studying during this time reduced. We anticipate there will be a significant gap in graduates available in the foreseeable future considering it takes a professional engineer 10 years or more to complete professional education and training (see [Engineers Australia's report](#) for more detail on this statistic).

Further, the rates of engineering graduates were significantly low pre-pandemic. In 2019, approximately 25% of individuals studying engineering undergraduate courses dropped out (5% in the first year, and 20% in later years – see [Engineers Australia's report](#) for more detail.) Improved demand data, fed back to universities and schools, can help close the information loop and ensure the engineers that we need in the future are being trained now.

Engineers Australia's [Strengthening the Engineering Workforce](#) report summarises the five factors that influence the number of engineers practicing in Australia:

- School education (primary and secondary)
- Engineering study (vocational and higher education)
- Retention in the engineering workforce
- Skilled migrant engineering workforce
- Demand forecasting.

This report also identifies initiatives to build the engineering workforce. Engineers Australia has recently established an Industry Reference Group with the objective of promoting engineering to school students. The South Australian Department of Education is a member of this group and will play an important role in connecting key government agencies and resources to industry.

Consult Australia's [Thinking Smarter About Skills](#) thought leadership paper reflects many of these themes as well. This paper considers the challenges as three-fold:

- Participation
- Access
- Retention.

Consult Australia's paper challenges industry, government, and academics to shift the way we do things and improve the overall experience as well as the culture of our industry.

Consult Australia and Engineers Australia both recognise that resolving the engineering workforce challenges requires collaboration between all levels of government, industry, the tertiary education sector, and professional associations. The time to commence some focused initiatives is now.

Recommendation – Infrastructure SA to encourage the South Australian Government to collaborate with other stakeholders including Consult Australia and Engineers Australia to address skills issues and set up the infrastructure required to have a thriving engineering sector in Australia.

A decarbonised, sustainable economy

Consult Australia and Engineers Australia support the view of Infrastructure SA for the need of a collaborative effort from all stakeholders in the ecosystem to reduce the emissions across the lifecycle of infrastructure assets. As the [Reshaping Infrastructure for a Net Zero Future](#) report notes, infrastructure contributes around 70 per cent of Australia's annual greenhouse gas emissions.

Consult Australia and Engineers Australia are part of the [Infrastructure Net Zero](#) initiative, a collective of organisations committed to coordinating, collaborating and reporting on infrastructure's pathway to net zero in a manner that aims to deliver value for community, government, industry and the environment.

Recommendation: Infrastructure SA and the South Australian Government to work with the Infrastructure Net Zero alliance to progress a decarbonised sustainable economy.

A stronger infrastructure industry

Planned pipeline

As stated above, pipeline clarity is vital for the confidence of industry and the professionals within businesses. Infrastructure SA recognises the importance of good infrastructure planning as outlined within the discussion paper, and we welcome the statement that '*visibility of the pipeline supports industry planning.*' Some of the impacts we see from poor pipeline planning, and the solutions to address these are identified below.

Negative impacts:

- **Economic disruption:** Pipeline investment is an economic lever. If that lever is pulled too tightly or let loose it has implications on market capacity to deliver, regional growth, and competition.
- **Shifting focus:** Pipeline uncertainty in one jurisdiction leads businesses operating across multiple jurisdictions to shift focus to secure projects and retain talent.
- **Capacity drought:** When businesses shift talent from one jurisdiction to another to follow projects, the first market may experience a capacity drought for a lengthy time.
- **Design domino:** As there is no construction without design, stopping projects then seeking a fast ramp-up often means limited design time leading to issues later.

Recommendation: Infrastructure SA to support and encourage the following solutions to deliver clarity for confidence:

- **Visibility for the industry:** Creating dashboards of design and construction pipeline information for industry is one of the most powerful ways clients can support industry.
- **Announce the 'preferred proponent':** Where an agency has a preferred proponent, that should be announced as soon as possible so other proponents can move onto other projects.
- **Co-ordination:** Government agencies should plan project releases with an awareness of impact on the market, including competing projects by other agencies. A steady stream of projects is preferred over a whole sector release at once.

Digital technology

We welcome Infrastructure SA's acknowledgement of the need for greater adoption of digital technology by governments. Both Consult Australia and Engineers Australia are calling for governments across Australia to support a networked approach to digital by default. We need a coordinated system driven by digital champions in industry and state/territory governments, to allow the communication and connectivity of digital practices.

Consult Australia is leading a campaign on [Digital by Default](#) uptake in infrastructure. The campaign has involved extensive consultation with industry and government across all states and territories. Both industry and government representatives recognise the role digital technology can have in enabling collective goals such as net zero, decarbonisation, productivity improvements, upskilling, safety measures, and as a tool for asset management. However, Australia's infrastructure supply chain is plagued by siloed operations. Where innovative, visionary, and transformative initiatives exist, they do so in isolation, preventing shared learnings and collective productivity benefits.

Industry, particularly design consultants and engineers, cannot operate sufficiently or sustainability with eight different approaches to digitalisation, let alone diverse approaches within states and territories driven by siloed department/agency initiatives. A coordinated, interoperable approach to digital is paramount if we are to utilise digital to achieve the many dividends we collectively seek.

Recommendation: Infrastructure SA to support and encourage the South Australian Government to develop a digital asset strategy that applies to key departments and agencies including Infrastructure and Transport, Health, Education, Energy, Water and Environment.

Effective procurement

We agree with Infrastructure SA that adopting early involvement and collaboration in procurement can support a competitive and sustainable infrastructure industry as well as deliver on shared goals across risk, diversity, social procurement, decarbonisation and innovation.

Government projects can be delayed by unnecessary contract negotiations to address clauses that transfer undue risks onto suppliers.

The risk allocation on government projects is feeding the unnecessary disputation within the industry and having a significant impact on the professional indemnity insurance market – which professional services businesses rely on, and which professional engineers are required to hold to practise.

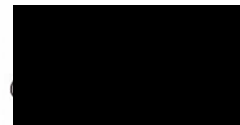
Recommendation: Consult Australia and Engineers Australia recommend Infrastructure SA collaborate with industry on re-assessing current government contracts and how government risk is addressed in liability provisions. Further, the unresolved issue of contracting out of proportionate liability needs to be tackled to address significant risks on engineers and businesses therefore resulting in a significant productivity uplift.

We welcome the opportunity to unpack our feedback further with Infrastructure SA in a collaborative meeting.

Yours sincerely,



Matthew Williams
State Manager
Consult Australia



Jan Irvine
General Manager SA & NT
Engineers Australia

17 November 2023



Attention - Strategy Team
Infrastructure SA
GPO Box 2343
ADELAIDE SA 5001

Grain Producers SA Ltd

Level 2, 180 Flinders Street Adelaide SA 5000
PO Box 7069 Hutt Street Adelaide SA 5000
P: 1300 734 884 F: 1300 734 680

ABN: 43 154 897 533

grainproducerssa.com.au

By email: infrastructure@sa.gov.au

Submission re: Infrastructure SA 20-Year State Infrastructure Strategy

I write regarding development of the next 20-Year State Infrastructure Strategy and Infrastructure SA's request for submissions.

Grain Producers SA (GPSA) appreciates the opportunity to provide a submission through this process.

GPSA is the peak industry body representing the 4,500 grain farming businesses in South Australia who plant more than 4 million hectares of cereals, pulses, and oilseeds annually. South Australia produces an average of 7.9 million tonnes of grain each year, which contributes more than \$4 billion to Australia's gross food revenue. This is made possible by grain growing businesses and farming communities across the state.

We believe we are in a strong position to provide input into Infrastructure SA's review of the State Infrastructure Strategy. Our grain producers live and work in rural and regional South Australia, often with poor access to government services in such areas as health, education, housing, and transport as well as other community services. However, provision of necessary social infrastructure is vital in enabling farm businesses and communities to function. Economic infrastructure for rural and regional South Australia requires improved and increased public infrastructure development projects, maintaining, and extending regional development and other job creation strategies.

1. What opportunities should we consider to improve South Australia's economic growth?

GPSA recommends enhancing the potential of agricultural research infrastructures to support scientific advancements and innovation in grains. South Australian agriculture and rural and regional communities need many more tools to work towards the Government's required net zero emissions targets and realise the opportunities of a low carbon economy.

The Department of Primary Industries and Regions (PIRSA) showed in its most recently published Primary Industries Scorecard 2021-22¹ that South Australia's primary industries are a vital contributor to the state with revenue totalling \$17.3 billion. Field crops contributed \$5.6 billion revenue, providing 28.2% of South Australia's total exports. Seasonality and its impact on grain production and elevated prices caused growth in grain exports, up by 59% in terms of value, mostly contributed to the overseas export total.

¹ [Primary Industries Scorecard 2021-22](#)

Export led growth, however, as an improvement strategy aimed at growing productive capacity by focusing on foreign markets, can be heavily influenced by changed conditions in both the South Australian and the importing economies. As South Australia's 20-Year State Infrastructure Strategy Discussion Paper (Discussion Paper) acknowledges it is estimated that of South Australia's 2022/23 agricultural and mineral goods exported, 56% were unprocessed primary products, such as grains, vegetables, fruit, and iron ore. The South Australian Grain Industry Blueprint ²(The Blueprint) produced in 2020, pointed towards opportunities for domestic demand-led growth investment in South Australia's grain industry. Examples are:

- Identify the opportunity to attract a new flour milling facility to SA based on an efficient supply chain, consistency of supply and potential functionality benefits of SA grown wheat.
- Develop options for growers to produce feed lentils for aquaculture and pet food markets.
- Establish pulse fractionation and processing capability in SA.
- Identify alternative markets for SA malting barley, including the expansion of domestic malting capacity.

Research informs adoption. For example, emerging products such as omega-3 enriched grains and cereals with higher resistance starch may create new growth channels for our grains. However, product development will also be affected by changes to mandatory and voluntary fortification standards³ set by domestic and overseas regulatory bodies. Does South Australia want to participate in generating, developing, evaluating and producing new value add products?

Furthermore, we've seen the unfortunate withdrawal of \$113 million from the Federal Government in relation to the construction of three plant protein manufacturing facilities across South Australia. This would have been a game-changing project creating 8,500 Full Time Equivalent jobs and increasing exports from the state. GPSA would encourage the South Australian Government to commit its funding share to finding a path forward for plant protein manufacturing infrastructure. This project has the potential to change the infrastructure landscape regarding value add into the future.

2. What infrastructure constraints are preventing a more efficient, accessible, and productive freight sector?

GPSA recommends the removal of constraints to a competitive grain market network.

The grain supply chain requires a well-supported cost-effective hierarchy of infrastructure and transport needs, from the key freight corridors and ports and facilities to the last delivery point in the export supply chain. The Blueprint outlines a range of priorities considered as opportunities to remove constraints and costs to market or end users, including:

- All grain receival sites or facilities that consume, access or store over 100,000 tonnes of grain and ensure last mile access matches the classification of the connecting highway
- Examine the optimal network for grain haulage and determine desired limits
- Largest dimensions for efficiency, produce all major roads used to haul grain to be a minimum of B-Double (PBS2A) with an aim to become minimum Road Train (PBS2B); increase opportunities to access A-triple (PBS4A) network for grain transport

² [Download a copy of the Blueprint here](#)

³ <https://www.euromonitor.com/fortified-functional-packaged-food>

- Establish an industry forum to identify and actively track leading and lagging growth indicators to tie aspirations to clear and measurable key performance indicators for major freight routes that do not currently meet efficient, accessible, and productive freight targets

There are many examples of well intentioned, overly prescriptive government led policies and regulations that inhibit productivity and increase cost. A recent example is the National Heavy Vehicle Regulator's (NHVR) proposed Risk-Based Heavy Vehicle Inspection Scheme. The scheme snares and puts agriculture heavy vehicle use with commercial heavy vehicle fleets. However, the proposed heavy vehicle inspection requirements applied to all heavy vehicles appears to be disproportionate to the risk posed by heavy vehicles operating in a primary production environment.

GPSA also undertook a Worst Grain Road campaign which identified 10 priority roads for repair and upgrade. The Upper Yorke Road between Kulpara and Arthurlton was highlighted as the number one road needing investment. Grain producers have identified that although the road is their key freight route, for safety reasons they are having to avoid Upper Yorke Road and go around it, costing them additional money in fuel etc. Those grain producers who do use the road have to slow down to almost a snail's pace to ensure they don't cause an accident due to the lack of width on this stretch.

A recently released Grattan Institute report found roads across much of regional Australia were a "dangerous disgrace". They are calling for a redirection of part of the federal government's infrastructure funding pipeline - \$1 billion for local road maintenance.

3. How can we enable a sustainable and affordable water supply into the future?

Water challenges are expected to strongly impact agriculture, a highly water-dependent sector, undermining the productivity of rain-fed and irrigated crops and livestock activities⁴. It is widely accepted that water is the most universally limiting factor in Australian agricultural production systems. According to Australia's Department of Climate Change, Energy, the Environment and Water, irrigated agriculture uses about 60% of the water available for human use.

Most of South Australia's grain production is winter sown and irrigation free. Yields continue to grow whilst maintaining minimal impact on South Australia's clean soils and water resources. Grain producers focus on climatic challenges by implementing better ways to use the water that they have. No-till farming in which the soil is left intact between harvests helps keep moisture in the soil, as does using cover crops or stubble and working with agrichemicals to reduce thirsty competing weeds. The Blueprint asserts innovation has a key role as a driver of productivity growth, pointing to crop water-use efficiency doubling in the past 15 years and combined with other yield improvement initiatives, on-farm innovation has added significant farm gate value. GPSA recommends policies and funding to help make South Australian grain production more drought resilient through supportive business practices and research to improve breeding and crop varieties. This could also be in the form of investment in research infrastructure.

⁴ <https://www.oecd.org/agriculture/topics/water-and-agriculture>

4. How do we realise the opportunities and mitigate risks with transforming our transmission and distribution infrastructure for the future?

The South Australian Government aspires to achieve 100 per cent net renewables by 2030⁵ (However, the green economy statement does not well define how very large amounts of wind and solar energy generated will be stored for full use. Wind and solar power generate most in locations that are least populated, and building connective infrastructure is huge undertaking).

The discussion paper describes the Australian Energy Market Operator's (AEMO) Integrated System Plan (ISP) as giving South Australia 'some level of certainty to planning for future transmission', however the ISP notes (p.95) that it is unclear whether the Renewable Energy Zones (REZ) design report framework would be relied upon? South Australia's transmission and distribution network does not feature heavily in the ISP, basically an anticipation of a new 330 kilovolt (kV) double-circuit interconnector enabling green energy produced in South Australia to be exported to New South Wales by July 2026, and suggestion of preparatory activity upgrades related to future ISP South Australian Projects; Southeast renewable energy zones REZ Expansion and Mid North REZ Expansion (275 kV double-circuit lines between Robertstown, Templers West and Para).

Rural and regional areas due to distances travelled are likely to lag urban transition shift to electric vehicles (EV) or other zero emission vehicle types.

Power pole incidents on-farm, particularly machinery collisions with headers and boom sprays getting bigger, have become more frequent and more major in consequence over time. Additionally, there is the pressure to sow to meet climatic conditions resulting in grain producers often operating machinery in less-than-ideal conditions with poor visibility at night and dry sowing in windy and dusty conditions. The hazards are also not always programmed accurately, or at all, into GPS equipment, further exacerbating the problem. Therefore, GPSA is proposing a long-term solution to addressing the issue of grain growers colliding with power infrastructure on their properties. We believe it is clear we need to address this problem by undergrounding power distribution networks, targeted raising of pole heights and in turn, electrical wires. Infrastructure SA should look at what is being done regarding this interstate in Western Australian with the electricity provider, Horizon Power, decommissioning and removing of 64 kilometers of poles and wires on farms and replacing them with stand-alone power systems (SAPS) in the Esperance region.

5. What are the barriers to increased adoption of digital technology to improve productivity?

GPSA identifies the major barrier to the adoption of technology on-farm is poor or lack of connectivity in many cropping regions across South Australia.

In May 2023, GPSA provided evidence to a Federal Parliamentary Committee about the connectivity plight of South Australian grain producers during a hearing in the South Australian Parliament. GPSA Chief Executive Officer Brad Perry provided evidence of the experience of grain producers in South Australia when dealing with unreliable connectivity on-farm. The House of Representatives Standing Committee on Communications and the Arts undertook the inquiry into 'Co-investment in multi-carrier regional mobile infrastructure'.

⁵ <https://www.energymining.sa.gov.au/industry/modern-energy/leading-the-green-economy>

Mr Perry told the committee; “Many areas where our grain producers live and work in regional and rural South Australia have a low population base. In fact, South Australia’s regional areas are generally low in population compared with interstate regional centres. Grain producers are significant contributors to South Australia’s economy and need accessible, reliable, affordable connectivity to do business. Without it, they struggle to adopt the latest technological innovations or even to do the basics, such as undertaking business in real time out in the paddock or in the office. For broadacre cropping, reliable connectivity is critical to ensure producers get the most out of their significant investment in digital agricultural machinery. With the high price of inputs, reducing costs through accuracy by utilising precision agricultural equipment is important. To do that, you need full connectivity. There is no room for patchy reception. When a telecommunications company is co-investing with government in what is a very expensive infrastructure project, it comes down to how many customers they can get on that coverage. In the end, they are going to get closer to at least a regional or metropolitan (centre) rather than, say, the 20 grain producers who populate a huge amount of land and probably contribute highly to the economy. The 3G switch off which is occurring over the course of the next 18 months was also raised, and whether there is any consideration to 3G being turned off. There have been some concerns from grain producers about that and what that will mean.”

6. What investments could unlock the value of South Australia’s resources?

GPSA considers that a structural imbalance remains between the primary production and resources sectors, including proponents likely to gain under the proposed Hydrogen and Renewable Energy Act as it relates to those matters governing land access and compensation under South Australian law. We believe this imbalance will only be properly and fully resolved through a whole-of government approach that considers the full spectrum of land use, development, and land access. The land access processes in are burdensome, stressful, and complex.

While various Acts establish or propose to establishes rights regarding access to land and provide for compensation for any resulting damage, these do not provide sufficient certainty or clarity, nor protections for landowners. Any protections for primary producers are superficial, in that the system provides ingress companies with a general right of access subject to the landowner demonstrating to a court that the proposed operations would likely result in substantial hardship or substantial damage to the land. Furthermore, even in respect of exempt land, the mechanisms permit any protections to be waived by a relevant court, with the possibility of conditions surrounding access imposed by the court. These processes are time consuming and costly, and the various Acts provide or propose to provide only moderate liability for ingress companies to cover associated costs to landowners.

Bunge Limited’s (Bunge) has proposed a merger with Viterra Limited (Viterra). Viterra operates a grain storage and handling network spanning key growing regions in South Australia and Victoria, including seven operational port terminals located along the South Australian coast. With a total storage capacity across the network of more than 10 million tonnes, the storage and handling facilities are accredited to meet the highest national and international standards of quality control and food safety management through best practice policies and procedures. If the ACCC agrees and does not prohibit the merger because it is unlikely to have the effect of substantially lessening competition in a market, it may open other market opportunities. Bunge has significant assets and storage. Bunge also has a focus on plant protein and sustainability, which again may lead to market opportunities. GPSA would also like to see Bunge invest in establishing one of its ‘Innovation Hubs’

in South Australia, effectively building a facility focusing on Research, Development and Extension in the grain industry.

Australia is a net importer of containerised goods.⁶ This results in a surplus of empty containers normally being readily available in main container ports in the eastern states. In South Australia, container availability is by no means assured, and container ships arrive and leave the main port Adelaide less frequently than eastern grain producing States. Compared to the eastern states, South Australia typically has low levels of and container exports (6%)⁷. Port Adelaide's infrastructure to handle the flow of shipping containers is comparatively static. More investment in supply chain infrastructure and greater export market access for containerised grain is limited by food grade container availability, particularly 20-foot containers.

7. How can South Australia better coordinate infrastructure investment to support a growing population?

Broadacre cropping land in South Australia is highly productive, yielding crops for both domestic consumption and export. The ongoing protection of productive land from housing and other development supports our role in the national and international food supply chain, sustaining State treasuries and bolstering economic opportunities. Preserving broadacre cropping land safeguards rural communities that depend on agriculture. It helps maintain employment opportunities, infrastructure development, and the overall well-being of these regions.

GPSA believes a more proactive approach is needed to quarantine productive grain areas for future food production. Recent expansion of housing in areas such as Roseworthy and Freeling, on the fringe of Greater Adelaide, is an example of meeting the need for more housing at the expense of productive broadacre land. Rural – urban interfaces lack detailed criteria and standards for sustainable management and buffer establishment to avoid potential conflicts, and do not advance investment in remnant or adjacent cropping activities. Differing expectations that suddenly finds rural – urban neighbours in conflict over issues such as noise, dust, odour, chemical use, and scenic values.

GPSA supports the protection of productive broadacre cropping land from urban development. All levels of governments must work together to 'keep the most productive land for agriculture using regulatory and market-based mechanisms, and economic incentives to enable producers to compete with alternate land uses'⁸.

8. What can be done to support sufficient, fit-for-purpose housing to improve housing affordability?

GPSA believes a lack of facilities, including housing in rural and regional areas, makes recruiting to keep up with growth in the grain sector difficult.

⁶ <https://www.aegic.org.au/wp-content/uploads/2022/08/AEGIC-Improving-Australias-containerised-grain-exports-FULL-REPORT-2022.pdf>

⁷ <https://www.accc.gov.au/system/files/Bulk%20grain%20ports%20monitoring%20report%20-%20data%20update%20-%202021-22.pdf>

⁸ Millar J & Roots J., 2012, "Changes in Australian agriculture and land use: implications for future food security ", International Journal of Agricultural Sustainability 10, p.15.

Rural areas have traditionally had sufficient housing and accommodation. For various reasons this is now in short supply, with rental properties and any-term accommodation vacancy rates at unprecedented low levels. This is impacting on grain producers' ability to accommodate workers required to support farm activities and productivity. The demand for accommodation is at all levels including nearby townships and on farm. According to Regional Development Australia – Eyre Peninsula⁹ (RDA - EP) there are several reasons for the high demand and low supply of housing. There has been a historic lack of investment in new and renewed housing stock as well as the increasing trend of people leaving major urban centres for regional locations in pursuit of lifestyle opportunities. Further compounding this lack of housing stock in the region is labour shortages in the construction industry as well as access to both finance and building materials.

GPSA provides the following as approaches to improve access to land and affordable housing in the cropping regions:

- Undertake inquiry to quantify unmet demand for housing and identify land capable of facilitating temporary short-term worker accommodation (why not on farm?), mid-term housing availability and future workforce requirements including higher status style housing to support major projects
- Prepare an adequate supply of shovel ready industrial, commercial, and residential land by using Strategic Land Use planning and other subregional master planning processes prepared by Councils
- Allow low-cost and alternative construction methodologies, such as prefabrication, to avoid difficulties associated with access to trades and material shortages
- Reduction in fees, charges, and other connection costs for land acquisition, new housing developments, to encourage investment

9. How can we improve public transport services across Adelaide and outer metropolitan areas to encourage greater patronage?

GPSA has reviewed the section thoroughly and has no feedback to add.

10. What investments would support a more efficient and productive health system that meets our growing and changing needs?

In many cropping areas there is a critical General Practitioner (GP) shortage, and a modern health system must address the GP shortages in regions. Investments in ongoing professional development, flexible working conditions, fit for purpose medical centre facilities and higher status housing could attract and retain new GPs, attendant health system workers and their families. There is also a lack of psychologists and other mental health and wellbeing professionals that must be addressed in our regional communities.

11. How can infrastructure support improved education and skills outcomes for South Australia?

Most South Australian grain producers are 'price takers' selling unprocessed grains rather than 'price makers' selling processed grains. The actions of any individual grain producer cannot independently influence the prices received for outputs. Value adding by turning grains into food is an additional process with economic value that could be added and offered to consumers.

⁹ [RDA Eyre Peninsula Business Plan 2023-24](#)

The grain industry must be partnered with to support, and invest in primary, secondary, tertiary, and vocational training, and education pathways. As the Blueprint discusses, tackling education and skills is a solution to the perennial challenge of attracting and retaining talent within the industry. Investment in establishment of new processing facilities for grains and pulses in SA would boost not only economic value add but improve intellectual capital in areas such as grains research and development. Extended in addition to agronomy, energising new programs to build and maintain research capacity through a more highly educated and skilled cohort of specialists and scientists to drive the effective delivery of value-add outcomes.

12. How can we sustainably grow these sectors to realise greater benefits for visitors and residents?

GPSA has reviewed the section and has no feedback to add.

13. How can we think differently about infrastructure investment to support equitable access and a more inclusive society?

GPSA agrees 'Digital connectivity is an enduring concern across many communities'.

In rural and regional locations that lack wired or mobile networks connectivity, satellite succeeds. Unfortunately, most satellite systems are too complicated, provide unnecessary bandwidth, and are priced at too high a cost for farming businesses to own. GPSA in collaboration with AgriFutures Australia has conducted two connectivity pilot projects at grain producer's farms paving the way for improved connectivity. The follow up project utilises a cutting-edge Low Earth Orbit (LEO) satellite-based solution, to facilitate safe, secure, and reliable data transmission. LEO satellites, in this case Starlink mobility, allows grain producers to connect anywhere, anytime, across their entire farm by taking the connectivity equipment with them, mounted on their vehicle, tractor, and machinery. This enables voice, mobile, and data connectivity for data-intensive robotics, automation, and more intensive precision farming functions.

In October 2023, the Department of Infrastructure, Transport, Regional Development, Communications, and the Arts released the On Farm Connectivity Program to provide eligible Equipment Suppliers with up to \$30,000 rebate for sales of digital farming technology to eligible Primary Producers to help improve their connectivity and productivity.¹⁰

LEO often work as part of a large combination or constellation, of multiple satellites to give constant coverage. To increase coverage, sometimes constellations like this, consisting of several of the same or similar satellites, are launched together to create a 'net' around Earth. This lets them cover large areas of Earth simultaneously by working together.

14. What are the opportunities for infrastructure investment to accelerate attainment of the Closing the Gap targets?

GPSA has reviewed the section and has no feedback to add.

15. What infrastructure investments will support industries to transition to a global net zero future?

¹⁰ <https://business.gov.au/grants-and-programs/on-farm-connectivity-program>

GPSA notes infrastructure investment lagging in rural and regional areas to provide positive impacts towards a global net zero future. Opportunities for public funding include electric vehicle charging stations, hydrogen fuelling stations, and carbon sequestration (i.e., carbon capture and storage).

Infrastructure investments to support a global net zero future transition must consider impacts on existing grain production and delivery networks. For example, Renewable Energy Zones and the transmission infrastructure to connect to the National Grid presumably will pass across privately owned land. Will grain producers see productive land sacrificed for renewables projects without their full consent? The draft Bill Hydrogen and Renewable Energy Act 2023 (SA) says compensation for effected landowners is to be determined by agreement between the owner of the land and the licensee or, in default of agreement, by the ERD Court. Landholders may have limited access to funding and expertise to contend with licensees, with the cost of licensing a project being the destruction of their livelihoods.

16. How do we maintain an affordable, reliable, and secure energy system through the energy transition?

GPSA recommends further study to enable improved understanding of the utilisation rate of power infrastructure for how well it was designed, how it is currently operating, and need for upgrading in the future.

17. What are the most significant challenges for decarbonising transport and how do we address them?

Grain production is part of a food system that needs transportation to move food to where it's needed. Power and supply inputs for our future in agriculture and achieving net zero is a challenging balance. All-electric propulsion tractors with autonomous attributes and higher horsepower for broad acre cropping are non-existent. Questions such as increased total cost ownership and fitment with battery packs to deliver gradual power and continuous torque remain one-sided.

Effective decarbonization actions include shifting the energy mix away from diesel and toward zero-emissions electricity and other low-emissions energy sources such as biofuels and hydrogen. Renewable fuels to decarbonise trucks, on-farm vehicles and machinery that come from renewable resources are readily available. Australia is a major supplier of canola to the European Union (EU) biodiesel market, with over 1.8 million tonnes exported annually¹¹. South Australia harvested 684,000 tonnes of canola in 2022/23¹², none of which is used in South Australia's production, transport, distribution, and vehicle infrastructure. Is this an overlooked opportunity?

18. What action is needed to achieve a circular economy in South Australia?

GPSA recommends consideration of the Bega Valley Circular Economy program¹³ as a model for a rural or regional South Australian project. Investigate where South Australia has peninsula locations, confined road access, with natural water catchment and industries in the district, for example Port Lincoln with its tourism, agriculture, and aquaculture.

¹¹ <https://www.csiro.au/en/news/all/news/2023/september/greenhouse-credentials-of-canola-industry-recognised-by-european-commission>

¹² https://pir.sa.gov.au/_data/assets/pdf_file/0006/431871/sa-crop-pasture-report-2022-23-final-summary.pdf

¹³ <https://begacircularvalley.com.au/projects>

On a farm any known opportunity to reuse or regenerate materials or products in a sustainable or environmentally friendly way is usually seized on. Consider barriers to the circular economy model in grain production include waste generation directly linked to necessary farm inputs including nitrogenous fertilisers, urea, superphosphate, liming, herbicide and pesticides and diesel consumption. In relation to carbon neutral cropping, all inputs have differing influence on carbon emissions. Synthetic and organic fertilisers increase the amount of nitrogen available to biological and chemical processes in the soil, which turn it into nitrous oxide (N₂O). Although these fertilisers can have very different impact on N₂O emissions. N₂O is likely to increase more in future, as inputs of nitrogenous fertilisers continues to rise. Grain producers can alternate fertiliser use by planting legume crops, biological N₂ fixation and crop rotations, and are examples of sustainability practices that enhance the nutrients in the soil¹⁴. A lot more work needs to be done in this space.

GPSA is currently undertaking a project looking at the green circular economy through the recycling/reuse of grain silo bags on-farm.

19. What measures can be taken to enable the infrastructure industry to decarbonise?

GPSA has reviewed the section and has no feedback to add.

20. How do we better account for the impacts of climate change in our infrastructure, to support improved resilience?

GPSA recommends activities such as state-wide mapping of riverine and surface water flood hazards and refined bushfire hazard mapping currently being undertaken by the Planning and Land Use Services division of the Government of South Australia's Department for Trade and Investment, should also consider broadacre cropping land that in short supply but is highly productive, yielding crops for both domestic consumption and export. Protection of productive land from housing and other development supports South Australia's role in the national and international food supply chain, bolstering food resilience and economic opportunities.

21. What are the critical resilience issues that South Australia needs to address?

GPSA believes maintenance of SA's rural and regional road network is a critical resilience issue.

If resilience is measured and assessed as the decline in a road network's accessibility and vulnerability to disruptive events, and social and economic losses, then SA rural and regional road maintenance needs to be addressed. GPSA conducted a statewide online poll which saw all members of the grain community submitting the roads they believed were in the worst condition. The results demonstrated that critical grain routes are falling into disrepair and need urgent investment and attention.¹⁵ As the Grattan Institute noted in its recent report¹⁶, federal and state governments need to help resource councils to manage their road networks. Rural and regional supply chains are critical for industry and to supply communities with basic needs. However, local councils often struggle to fund and maintain critical freight transport infrastructure. A quarter of councils don't even know exactly what roads and bridges they manage and for remote councils, it's almost 50%. To help

¹⁴ Harries, M, Flower, KC & Scanlan, CA 2021, 'Sustainability of nutrient management in grain production systems of south-west Australia', Crop and Pasture Science, vol. 72, no. 3, pp. 197-212.

¹⁵ <https://grainproducerssa.com.au/wp-content/uploads/2022/12/Worst-Grain-Road-Report-2022.pdf>

¹⁶ <https://grattan.edu.au/wp-content/uploads/2023/11/Potholes-and-Pitfalls-How-to-fix-local-roads-Grattan-Report.pdf>

councils better manage their roads, the federal government should establish a national road hierarchy, minimum service standards, and basic data specifications for councils to follow. Targeting road funding to where it's needed, as made public by SA's state government in May 2023¹⁷, in South Australia the road maintenance backlog is more than \$750 million.

22. How can we better realise the resilience benefits of green and blue infrastructure to inform infrastructure planning?

GPSA has reviewed the section and has no feedback to add.

23. How can government and industry work together to support the supply of skilled labour needed to deliver a transparent infrastructure pipeline?

GPSA believes a lack of facilities, including housing in rural and regional areas makes recruiting difficult to keep up with demand for workers in the grain sector. Many rural and regional areas have declining populations. Services often consolidate or centralise to larger regional centres, attracting people away from key industries including mining, tourism, and agriculture.

Training new employees is critical to new employees succeeding in their role. To get the job done requires competencies across a wide range of disciplines, including using chemicals, fertilisers, growing and harvesting crops, operation of agricultural combinations and heavy vehicles. Setting up new employees for success means properly training them. Consider the new specialist agricultural training facility funded by the Western Australian government (\$10.3 million expansion) at the Muresk Institute¹⁸ in Northam. The Muresk Institute is the home of agricultural training in Western Australia. Located in the Wheatbelt on a working farm, education and training is industry-driven and opportunities are made available to meet the demand for skilled workers. Imagine increasing the number of skilled workers available from a Muresk Institute centre for South Australia.

24. How can we maximise the productivity benefits of digitising our infrastructure?

Increasing productivity benefit from the grains sector by digitising our infrastructure faces many challenges. There is a high cost and complexity of the technologies and grain producers need to invest in equipment, software and training. Lack of interoperability and standardisation among different devices and platforms leads to compatibility and data quality issues. Further complicated by legal or social barriers related to data ownership, privacy, security, consumer acceptance and trust.

As discussed in Question 13, GPSA has been actively supporting introduction of connectivity solutions to enhance adoption and benefit from technology. Boosting adoption and utilisation of precision agriculture practices would significantly reduce the agriculture industry's environmental impact, which currently accounts for around a quarter of global greenhouse gas emissions. An American study¹⁹ showed the impact of precision agricultural technologies achieved: 4% increase in crop production, 7% reduction in fertilizer use, 9% reduction in herbicide use, 6% reduction in fossil fuel use, and 4% reduction in water use. Enabling technologies are critical to precision agriculture, with internet connectivity still a barrier to wider adoption.

¹⁷ <https://www.premier.sa.gov.au/media-releases/news-items/media-release48#:~:text=In%20fact%2C%20in%20the%20period,of%20South%20Australia's%20roads%20infrastructure>

¹⁸ <https://www2.dtwd.wa.gov.au/mureskinstitute>

¹⁹ [The Environmental Benefits of Precision Agriculture in the United States](#)

25. How can government continue to encourage collaboration and innovation in procurement?

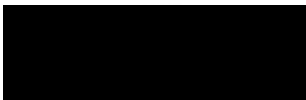
GPSA has reviewed the section and has no feedback to add.

26. What are the funding and financing options government should consider in future, to ensure its infrastructure program remains affordable and sustainable?

GPSA does not agree with further taxes or levies on grain producers to fund public benefit infrastructure projects. The recent Federal Budget's announcement of a new 10 per cent Biosecurity Protection Levy to be imposed on South Australian grain producers is an example of funding and financing options government should not consider.

Thank you once again for the opportunity to provide a submission to Infrastructure SA'S development of the next 20-Year State Infrastructure Strategy.

Yours sincerely,

A black rectangular box used to redact the signature of Brad Perry.

Brad Perry
CHIEF EXECUTIVE OFFICER
GRAIN PRODUCERS SA

13 November 2023

Tara Hage
Manager – Strategy
Infrastructure SA

Via email: infrastructure@sa.gov.au

Dear Ms Hage

Re: South Australia's 20-Year State Infrastructure Strategy

Green Building Council of Australia (GBCA) welcomes the opportunity to provide input to South Australia's 20-Year State Infrastructure Strategy. Establishing a comprehensive, progressive and clear strategy will be critical to ensuring that South Australia's economy and communities continue to thrive as well as a vital component of South Australia's efforts to decarbonise.

GBCA's purpose is to lead the sustainable transformation of the built environment. We do this primarily through our core functions:

- We rate the sustainability of buildings, fitouts and communities through Australia's largest national, voluntary, holistic rating system – Green Star.
- We educate industry, government practitioners and decision-makers, and promote green building programs, technologies, design practices and operations.
- We advocate policies and programs that support our vision and purpose.
- We collaborate with our members and other stakeholders to achieve our mission and strategic objectives.

Green Star is Australia's most widely used sustainability rating system for the design, construction and performance of buildings – including social infrastructure – fitouts and communities. Green Star aims to transform the built environment by:

- reducing the impact of climate change
- enhancing our health and quality of life
- restoring and protecting our planet's biodiversity and ecosystems
- driving resilient outcomes for buildings, fitouts, and communities
- contributing to market transformation and a sustainable economy.

South Australia has been a leader in many areas of climate action, including adoption of Green Star rating tools. There are many benefits to gain from setting, achieving and verifying high sustainability targets for social infrastructure, such as hospitals, schools and sporting and cultural facilities, government buildings and government-led development projects. Some of the ways in which Green Star can help to ensure that projects achieve sustainability objectives include:

- **Consistency with net zero emissions goals**
Green Star is on a trajectory to ensure all new buildings and fitouts cut greenhouse gas emissions from their operations by no later than 2030.

- **An ‘off the shelf’ set of best practice criteria**
Green Star provides guidance on what is best practice in sustainable design and development through a set of technical criteria. It also provides a set of targets and a common language that can help all project stakeholders to work together more effectively.
- **Requires third-party assurance**
Green Star is supported by a robust certification process and third-party assessment, enabling certified projects to share sustainability achievements with confidence.
- **Delivery of intended outcomes**
The rigour of an independent certification process ensures that sustainability features committed to at the outset of a project are less likely to be ‘managed out’ as the project progresses. Cost-cutting and substitutions can erode the quality of the final outcome, but a commitment to achieve Green Star certification minimises this risk.
- **Certainty through minimum expectations**
Green Star sets a range of minimum expectations that must be achieved by all projects, such as energy use and emissions. This assures consistency in sustainability outcomes for Green Star rated projects.
- **Market acceptance and penetration**
With more than 4400 certifications across Australia, project proponents can leverage industry expertise and awareness among the development community.

Projects such as Flinders Medical Centre – New South Wing (5 Star Green Star), the Attorney-General’s Department fitout (5 Star Green Star) and development projects such as Bowden, Tonsley and Lot Fourteen (all 6 Star Green Star) demonstrate leadership and tangible examples of the SA Government’s commitment to sustainability. These developments are delivering reduced emissions and healthier places for South Australians to live, work, play and heal, are future-proofed and more resilient, and have created opportunities to build sustainability skills, capacity and innovation in industry and the supply chain.

GBCA applauds the SA Government on its journey of sustainability to date. We encourage ongoing commitment not only to setting high sustainability standards for future social infrastructure and development projects, but also to independent verification of these achievements.

Robust, credible rating tools have a critical role to play in the delivery of sustainable, decarbonised, future-proofed infrastructure and can help governments to meet some of the many challenges they are faced with in providing infrastructure that will enable their economies and communities to thrive. In addition to the comments above, GBCA offers input to the consultation question below. We also note the policy platform we have developed in partnership with Property Council of Australia, Every Building Counts, which outlines a series of recommendations for governments to accelerate the sustainable and equitable transition of the built environment to net zero. The federal and local government versions of this report can be found on the [Every Building Counts](#) website, and a report with recommendations tailored to state and territory governments will be released and available on the website from 11 December 2023.

Consultation question 8: What can be done to support sufficient, fit-for-purpose housing to improve housing affordability?

GBCA commends the SA Government’s commitment to additional investment in social housing stock and consideration of ways to support the private residential sector to build more homes and improve rental conditions. As the SA Government is aware, the energy efficiency, comfort and health of a home are major factors in its ongoing affordability.

We encourage the SA Government to commit to achieving Green Star certification for new social housing, as well as developments that support private housing supply, wherever possible. We note the excellent example of Bowden, where through visionary government leadership, the SA Government is ensuring that householders within this community will experience the benefits of efficient, healthy, sustainable homes. Bowden is a 6 Star Green Star Community and all buildings within it are required to achieve 5 Star Green Star certification. Renewal SA and GBCA have been working closely for many years to ensure the best possible Green Star outcomes at Bowden and other Renewal SA-led projects.

Consultation question 10: What investments would support a more efficient and productive health system that meets our growing and changing needs?

South Australia is a leader in delivering sustainable healthcare facilities. GBCA applauds the SA Government on its achievement of Green Star certification for a range of facilities. SA Health was one of the first government departments to achieve Green Star certification for a healthcare facility with the Flinders Medical Centre New South Wing. The New Royal Adelaide Hospital, Inpatient Building at Lyell McEwin Hospital Redevelopment Stage C and GP Plus Super Clinic at Noarlunga have also achieved Green Star certification.

Hospitals that can demonstrate that they meet best practice sustainability benchmarks are proven to deliver better outcomes for patients and staff as well as lower operating costs and we encourage the SA Government to continue to aim for high sustainability standards, backed up with independent verification of achievement in healthcare facilities.

Consultation question 16: How do we maintain an affordable, reliable and secure energy system through the energy transition?

The best way to deliver on consumers' energy needs is through an integrated mix of demand-side and supply-side measures. All jurisdictions can play their part by embedding the principle of 'energy efficiency first' to ensure that energy efficiency is elevated when policies and investments in energy are being considered as well as social infrastructure and other projects. Please see [Every Building Counts](#), Theme 5 – Energy Market Reform, for more information.

GBCA recognises the importance of investing in new energy technologies such as green hydrogen to assist in decarbonising hard-to-abate sectors such as manufacturing and heavy industry. However, as noted in our [submission to South Australia's Energy Future](#), the Australian Sustainable Built Environment Council report, [Unlocking the pathway](#), confirms that 100% electrification is the lowest cost, fastest emissions reduction pathway for Australia's built environment.

Consultation question 18: What action is needed to achieve a circular economy in South Australia?

GBCA was proud to lead a project on behalf of the SA Government (Green Industries SA) to identify actions required to boost circular economy outcomes in South Australia's built environment. The key actions identified for government leadership investment and support are:

- *Legislation & regulations:* A review of legislative and regulatory conditions should be undertaken to identify innovative models to support circular economy outcomes including the Environment Protection Act 1993 and Planning, Development and Infrastructure Act 2016.
- *Investment & design guidelines:* SA Government implements mandatory circular economy requirements in procurement processes and government design standards and guidelines.
- *First Nations peoples engagement:* A First Nations peoples engagement plan is developed based on the priorities identified in this report and meaningful engagement is undertaken to listen to and learn from a Connection to Country.

- *Metrics & monitoring:* A standardised set of metrics and key performance indicators are adopted to value the embodied emissions in materials and track outcomes over time. It is recommended that the NABERS Embodied Emissions rating tool currently in development is adopted once released.
- *Sustainable materials database:* Grants and co-investment funding is provided to industry, including local suppliers, manufacturing, and businesses, to develop Environmental Product Declarations or embodied carbon accounts, and align with GBCA's Responsible Products Framework.
- *Sustainable homes:* Implement a government funded low-interest Green Loan scheme for residential home improvements (e.g., energy efficiency and thermal performance) that extend the lifespan of homes and discourages demolition.
- *Design review:* Incorporate circular economy topics as part of Design Reviews including embodied emission reductions, reuse of materials and onsite resources, and use of locally manufactured low emission materials.

The report also identified that establishing a circular economy nucleus to bring together government, like-minded industry groups and representatives and the education sector to increase knowledge and awareness of circular economy opportunities. Key actions for these stakeholders include:

- *Circular built environment working group:* Establish a circular built environment working group of government, First Nations peoples, tertiary and industry representatives to drive innovation, share lessons learnt, and identify and overcome barriers.
- *Tertiary education:* Integrate circular economy into tertiary education courses and programs to ensure built environment disciplines are considering circularity and embodied emissions.
- *Service-based approaches:* Industry is encouraged to integrate service-based offerings for the built environment including heating ventilation and air conditioning (HVAC), lighting, and fit outs to support more diverse business models and improve revenue.
- *Construction industry:* Participate in, learn about, and engage with circular economy industries and disciplines and actively promote and suggest alternative approaches to circular design approaches and materials as part of tenders.
- *Industry agreements:* Industry bodies and associations collaboratively develop circular economy transition plans and set industry wide targets for recycled content and circular economy outcomes.
- *Education & awareness programs:* Develop an education and awareness campaign in collaboration with industry targeted at various industry and consumer groups providing information, case studies, material and supplier examples and strategies.

Please see [Circular Economy in South Australia's Built Environment: Action Plan](#) for more information.

Consultation question 19: What measures can be taken to enable the infrastructure industry to decarbonise?

Procurement is a powerful lever for governments to enable and accelerate change in industry. To lead by example with government-funded projects, the SA Government can take the following actions which will set clear expectations for the infrastructure industry:

- **Set clear and ambitious emissions reduction targets for infrastructure projects**

The World Green Building Council report, *Bringing embodied carbon upfront*, identified 40% less embodied carbon by 2030 is an achievable and necessary target to put the built environment on track for a net zero carbon future.

- **Embedding emissions reduction targets in procurement guidelines and requirements across government**

The South Australian Government Procurement Framework and supporting policies must be updated with emissions reduction targets and reporting requirements at the earliest opportunity. As well as embodied carbon reduction targets, circular economy principles and priorities must also be incorporated in the procurement framework and policies. For example, setting minimum recycled content requirements for high embodied emission materials such as concrete and steel. This can help to drive uptake and leverage collective buying power and economies of scale to kick start green manufacturing and remanufacturing in South Australia.

- **Assign appropriate weighting to emissions reductions in the assessment of tenders**

Including emissions reduction targets in procurement policy and requests for tender must be supported with a project tender assessment process that assigns relative weight to how these targets will be achieved. Procurement processes must send a clear and consistent signal to industry that decarbonisation carries comparable importance to cost and other considerations.

Please see [Every Building Counts](#), Theme 8 – Towards Zero Embodied Carbon, for more information.

Consultation question 20: How do we better account for the impacts of climate change in our infrastructure, to support improved resilience?

The need to improve the resilience of social infrastructure has never been more urgent as Australia faces greater uncertainty from the effects of a growing list of shocks and stressors. Governments must be confident that social infrastructure and other government-funded projects have been thoroughly risk-assessed and that appropriate mitigation and adaptation measures have been applied.

The Green Star Buildings rating tool provides a set of industry-agreed best practice benchmarks and guidelines for embedding greater resilience in project. The Resilience category within the rating tool includes five resilience credits; Climate Change Resilience; Operations Resilience; Community Resilience; Heat Resilience; and Grid Resilience.

Consultation question 25: How can government continue to encourage collaboration and innovation in procurement?

The SA Government must continue to celebrate its achievements in sustainable procurement and look for opportunities to share examples of success and best practice across government as well as with industry. The [Green Industries SA Circular Procurement Knowledge Hub](#) is an excellent resource.

Case studies are another important way to share achievements and lessons learned. For example, GBCA is currently working with City of Port Adelaide Enfield on their Yitpi Yartapuultiku Aboriginal Cultural Place project and we have been proud to provide a platform for those working on this project to share their experiences both in live events and via an [online case study](#).

Consultation question 26: What are the funding and financing options government should consider in future, to ensure its infrastructure program remains affordable and sustainable?

Green Star is aligned with a range of Australian and international reporting frameworks such as Climate Active, GRESB, UN Sustainable Development Goals, Task-force for Climate Related Financial Disclosure among others. Green Star Buildings meets all of the impact categories under the EU Taxonomy on Sustainable Finance and complies with all the requirements for Green Bonds, Green Loans, Social Bonds and Social Loans. Certification with Green Star can help to attract investment for assets or support governments with issuing their own green/social/sustainability-linked bonds. GBCA launched Unlocking the value: A practical guide to sustainable finance in the Australian real estate sector on 15 November. Please visit the [GBCA website](#) to access this document.

GBCA looks forward to continuing to work with the SA Government to further embed sustainability leadership in infrastructure delivery in South Australia over the coming years. Please do not hesitate to contact Katy Dean, Senior Policy Adviser, via email at [REDACTED] should you require further information or to arrange further consultation.

Yours sincerely



Andrew Fischer
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8 November 2023

Infrastructure SA
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Dear Sir/Madam

Review of SA's 20-Year State Infrastructure Strategy – discussion paper

The Housing Industry Association (HIA) appreciates the opportunity to provide feedback on the 20-Year State Infrastructure Strategy (herein referred to as the 20-Year Strategy) and acknowledges the extensive work undertaken by Infrastructure SA in preparing the discussion paper for public consultation.

HIA understands that the 20-Year Strategy will replace the 2020 version created under the Infrastructure SA Act 2018. Most critical to a successful implementation is having consideration to the current social and economic situation in conjunction with strategic objectives outlined within other relevant legislations.

This discussion paper coincides with the release of the Greater Adelaide Regional Plan (herein referred to as the GARP), a document that outlines proposed planning policies for the next 30 years within the city of Adelaide and its surrounding districts.

The review of the 20-Year Strategy must respond to the objectives put forward within the GARP, ensuring that targeted population growth and housing supply nominated in that document works cohesively with strategic infrastructure projects involving main structural roads, street networks stormwater drainage and available land on which services are placed upon.

We are encouraged to read the 20-Year Strategy recognises strong household, public and business spending has occurred in the post-COVID era, with South Australia having the second fastest 'gross state product' (GSP) in the country. Having said this, **HIA is concerned that information surrounding the current economic position may not be synchronised between SA Government Departments.**

In our submission to the GARP, HIA was critical of the proposed target figures for population growth and the number of built homes required for the next 30 years. From the data we collated, **the proposed goal of 670,000 additional residents will not be enough if measure against the current population growth rate.**

Furthermore, the average number of new homes set under the GARP is well below the number necessary to meet the National Housing Accord for the remainder of this decade, factoring into account SA's portion of the stimulus.

We strongly encourage you to read our submission on the GARP as provided within this response, it includes comprehensive data analysis and HIA's policy positions on the following topics.

- Principles of a Good Planning System
- Managing Urban Land Supplies
- Infrastructure Charges and Levies on Residential Development, and
- Government Infrastructure Investment

Elements of the 20-Year Strategy relating to Housing, land supply requirements, commentary regarding existing infrastructure and funding for new infrastructure is of particular interest to us. Within this discussion paper is a reference to Livable and well-planned places, HIA would like to focus specifically on this topic and the questions posed in this section of the document.

Consultation question

How can South Australia better coordinate infrastructure investment to support a growing population?

Governments have a responsibility to implement infrastructure programs to sustainably support anticipated growth in a manner that ensures the investment cost is shared equitably across the whole community. This means the 20-Year Strategy ought to contain a comprehensive analysis of the financial outlay and resources required to meet community needs and population growth.

We recommend the whole community partake in cost sharing, as they are the beneficiaries. This could be facilitated through direct government funding or borrowings, tax effective infrastructure bonds or rate levies across the whole community as mentioned in HIA policy *Government Infrastructure investment* (see appendix). Maintenance costs should be recovered by means of an annual rate or charge and not permitted to be part of any up-front charge or levy.

As stated in HIA policy *Government Infrastructure Investment* – (see Appendix), Infrastructure provision should be planned, developed, and implemented in a coordinated manner by all levels of government, state, regional and local in consultation with the residential building and development industry. An appropriate strategy should address all sectors of society, providing key infrastructure to accommodate residential building work in conjunction with a suitable number of recreational areas.

Consultation question

What can be done to support sufficient, fit-for-purpose housing to improve housing affordability?

Government infrastructure investment should incorporate strategies that take into account the benefits of delivery as well as cost savings that can result from integrating land use and transport planning. Supply and demand dictates affordability, so it is imperative new housing estates are established which are ably supported by the provision of adequate access routes and services.

Up-front charges and levies against a new development erode housing affordability and are the least efficient way infrastructure costs are recovered, this is spelt out in HIA policy *Infrastructure Charges and Levies on Residential Development* (see Appendix).

HIA opposes development levies as a sole source of funding for major items of social and community infrastructure within new housing development. If such charges were to be formed, they should be transparent, consistently applied and embedded within the statutory planning instrument used to release the land and collected at the last stage of the development process.

HIA would like to make it clear that we do not support delivery costs for main infrastructure being transferring onto developers and call for sensible designs to ensure government is the primary body equipped to facilitate installation of critical infrastructure.

Consultation question

How can we improve public transport services across Adelaide and outer metropolitan areas to encourage greater patronage?

HIA encourages development that promotes public transport systems, which in turn promotes liveable environments through social interaction and inclusion.

Greater patronage can be encouraged by implementing planning policies that facilitate medium density development around major transport hubs. This strategy was observed within the 30-year plan for Greater Adelaide in 2010, promoted as transit-oriented development (TOD).

By and Large, TODs failed to eventuate as anticipated, falling short of target numbers. Although the ideology is sound, its failure in Adelaide can be attributed to a lack of electrified rail systems, planning restraints around density and consumer demand for fringe development.

Nevertheless, the establishment of high-quality public transport can inspire the appropriate density development to support such infrastructure. Of course, a change in planning objectives around many transport hubs must be administered in conjunction with service delivery prerogatives.

In summary, the 20-Year Strategy must be formed in line with the directives listed in the final draft of the GARP. HIA supports the concept of satellite cities as was nominated within the GARP but have concerns around the provision of adequate land supply. Given the Federal Government's pledge to build 1.2 million homes over the next 5 years, equating to over 80,000 for South Australia if

distributed equitably on population, greenfield development on the city periphery will have to hold a significant portion for this distribution.

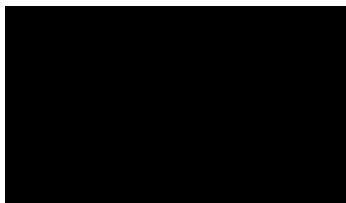
For this reason, the 20-Year strategy must adopt a staged approach to infrastructure development along major transport routes as nominated in the GARP. HIA suggests this work should be given high priority, acknowledging a shortage of available housing already exists and that the state is in the grip of a rental crisis.

Further details on matters discussed in this response, including statistical analysis on population growth, are found within HIA's submission on the GARP (see appendix).

Thank you once again for the opportunity to lodge a written submission on the 20-Year Strategy. Should you require anything further, please do not hesitate to contact myself on [REDACTED]
[REDACTED]

Please note HIA would appreciate being kept informed of follow-up stages as they come out for public comment.

Yours sincerely
HOUSING INDUSTRY ASSOCIATION LIMITED



Stephen Knight
HIA Executive Director
South Australia



HOUSING INDUSTRY ASSOCIATION



Submission to the State Planning Commission

Response to the following discussion paper

GREATER ADELAIDE REGIONAL PLAN

November 2023



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ABOUT THE HOUSING INDUSTRY ASSOCIATION

The Housing Industry Association (HIA) is Australia's only national industry association representing the interests of the residential building industry, including new home builders, renovators, trade contractors, land developers, related building professionals, and suppliers and manufacturers of building products.

As the voice of the residential building industry, HIA represents a membership of 60,000 across Australia. HIA members are involved in land development, detached home building, home renovations, low & medium-density housing, high-rise apartment buildings and building product manufacturing.

HIA members comprise a diverse mix of companies including residential volume builders, small to medium builders and renovators, residential developers, trade contractors, building product manufacturers and suppliers and allied building professionals that support the industry.

HIA members construct over 85 per cent of the nation's new building stock.

The residential building industry is one of Australia's most dynamic, innovative and efficient service industries and is a key driver of the Australian economy. The residential building industry has a wide reach into manufacturing, supply, and retail sectors.

Contributing over \$100 billion per annum and accounting for 5.8 per cent of Gross Domestic Product, the residential building industry employs over one million people, representing tens of thousands of small businesses and over 200,000 sub-contractors reliant on the industry for their livelihood.

HIA exists to service the businesses it represents, lobby for the best possible business environment for the building industry and to encourage a responsible and quality driven residential building development that is affordable as stated in HIA policy – Planning Reform (see appendix).

HIA's mission is to:

“promote policies and provide services which enhance our members' business practices, products and profitability, consistent with the highest standards of professional and commercial conduct.”

HIA develops and advocates policy on behalf of members to further advance new home building and renovating, enabling members to provide affordable and appropriate housing to the growing Australian population. New policy is generated through a grassroots process that starts with local and regional committees before progressing to the National Policy Congress by which time it has passed through almost 1,000 sets of hands.

Policy development is supported by an ongoing process of collecting and analysing data, forecasting, and providing industry data and insights for members, the general public and on a contract basis.

The Association operates offices in 22 centres around the nation providing a wide range of advocacy, business support services and products for members, including legal, technical, planning, workplace health and safety and business compliance advice, along with training services, contracts and stationary, industry awards for excellence, and member only discounts on goods and services.

INTRODUCTION

The Greater Adelaide Regional Plan discussion paper (herein referred to as the GARP) outlines planning policies that provide guidance on future development within Adelaide and the immediate surrounding districts. As an overarching legislative instrument, it is critical the content within the final draft reflects consumer behaviours/expectations and considers the factors which contribute to our States economic prosperity.

HIA recognises the extensive work undertaken by the government and appreciates the opportunity to give constructive feedback on the document.

We believe reviewing the existing position is much needed and it is our belief outcomes resulting from this discussion paper have the potential to create better planning outcomes for our members and the public.

It is important the Government ensures authorities who use the GARP to create planning policies can do so by taking a holistic approach when achieving objectives, recognising a balance between economic and social factors.

The system must be robust and developed with sufficient rigor to eliminate unnecessary regulatory barriers for industry and the community. A fully considered system is one that is reasonable for users to comply with and manageable for regulators to apply.

A review must analyse cost/benefit outcomes for any proposed change and accomplish sensible planning provisions in line with consumer affordability. The purpose of a review should be to improve development efficiencies so that changing social patterns and evolving technologies are considered.

Our industry is currently facing many challenges including rising material costs, a constrained labour market, product supply delays and broader “cost of living” issues. It is therefore imperative the building industry is not further hindered by regulatory constraints that cause delays. Time that is wasted has a detrimental impact on the housing sector.

Pressures on building professionals can be reduced by ensuring the PDI Act, the P&D Code and the portal are functioning well in line with the objectives proposed within the GARP.

This submission provides a response to the GARP, our comments listed within are based on a suite of HIA policy statements aimed at assisting statutory planning processes, increasing the timeliness and transparency of decision making.

The purpose of our response is to clarify our position on topics covered in the GARP as well as the planning system in general. We encourage the Government takes a bilateral approach when reaching a resolution, that the administration processes used to enact planning outcomes are reviewed conjunctively with objectives/targets set under the GARP.

Acknowledging the GARP is to succeed the 30-Year Plan for Greater Adelaide, our submission will include an analyse of the current strategy to determine whether provisions within it are adequate for the newly formed position.

1. REVIEW OF THE 30-YEAR PLAN FOR GREATER ADELAIDE

1.1. OBJECTIVE OF THE PLAN

In 2010, the then Government released a 30-Year Plan (herein referred to as the 2010 Plan) allocating targets for long term projected population growth, housing supply and employment opportunities. The overarching objectives of the Plan were to maintain and improve liveability, increase competitiveness and drive sustainability and resilience to climate change.

Policy priorities included.

- steady population growth of 560,000 people
- construction of 258,000 additional homes

Aligned with achieving targets was the improvement of existing transport infrastructure including the electrification of rail systems, extensions of rail to Noarlunga-Seaford, expansion of the western tram line and increasing the O-barn track.

To meet housing numbers, the strategy required new development reach a ratio of 70% infill to 30% greenfield. Medium and high-density development was to be assisted by the creation of 14 new transit-oriented developments (TODS) and the establishment of 20 sites for such projects.

In 2017, the Plan was amended (herein referred to as the 2017 Update) and provided a more conservative approach. Population growth was amended to 545,000 and additional homes were reduced by 10,000 to a target of 248,000. Infill ratios were increased to 85% while projections of economic growth, job creation and TODS were removed. Further to this, the Environment and Food Production Area (herein referred to as the EFPA) was introduced, limiting the number of locations in which development could take place.

1.2. RESULTS

Altering the Plan in 2017 meant less accountability for Government. Not only were aspirational figures for population growth and construction revised to lower numbers, but 89 targets were reduced to 6. With that said, an examination of the 2010 Plan and 2017 Update does provide insight into the current situation.

1.2.1. GREATER ADELAIDE POPULATION GROWTH VERSES GOVERNMENT TARGETS

To get a true indication of the target accuracy (predictions), numbers ought to be compared against percentage growth on an incremental scale, referred to as the growth rate.

As part of this submission, population figures are obtained from the 2011 & 2021 ABS census. Note that boundaries for Greater Adelaide under the 2010 Plan and 2017 Update are inclusive of the Fleurieu Region and Barossa Region. Under census data, both the Fleurieu and Barossa Regions are excluded from Greater Adelaide data.

TABLE 1A: POPULATION PERCENTAGE GROWTH

	Population 2011	Population 2021	Actual % growth rate
Greater Adelaide	1,225,235 ^[1]	1,387,290 ^[2]	1.25 %
Barossa Region	64,839 ^{[3] [4]}	75,684 ^{[5] [6]}	1.56 %
Fleurieu Region	41,937 ^{[7] [8] [9]}	50,703 ^{[10] [11] [12]}	1.97 %
TOTAL	1,332,011	1,513,677	1.29 %

TABLE 1B: PREDICTED PERCENTAGE GROWTH WITHIN THE PLAN

	Population 2011	30-year projected population growth	Targeted % Growth rate	Targeted Population 2041
The Plan (2010 version)	1,332,011	560,000	1.18 %	1,892,011
The Plan (2017 version)	1,332,011	545,000	1.15 %	1,877,011

TABLE 1C: ACTUAL POPULATION GROWTH VERSES PREDICTED POPULATION GROWTH.

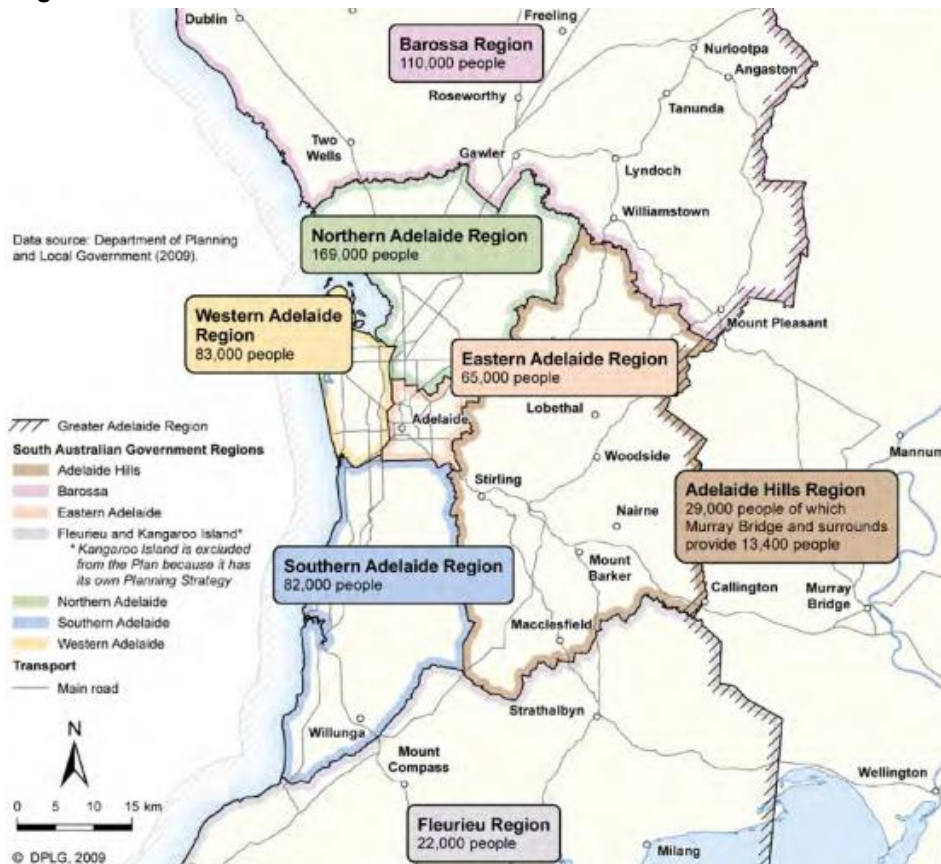
	Actual % growth in 2021	Actual population in 2021	Targeted growth percentage	Targeted population for 2021
The Plan (2010 version)	1.29 %	<u>1,513,677</u>	1.18 %	<u>1,497,802</u>
The Plan (2017 version)	1.29 %	<u>1,513,677</u>	1.15 %	<u>1,493,367</u>

The following observations were made up to 2021.

- Both the 2010 Plan and 2017 Plan provided target values less than the actual population growth.

1.2.2. PREDICTED AREAS OF POPULATION GROWTH

Under the 2010 Plan, population growth was designated to areas within Greater Adelaide (refer to Figure 1). Although removed from the 2017 Update, an analysis of the dispersal prediction provides useful intel on growth.

Figure 1

1.2.2.1. BAROSSA REGION

TABLE 2.1(i): PREDICTED PERCENTAGE GROWTH FOR THE BAROSSA REGION

	Population 2011	30-year projected population growth	Predicted % Growth	Predicted Population 2041
The Plan (2010 version)	64,839 ^{[3] [4]}	110,000	3.36 %	174,839

TABLE 2.1(ii): ACTUAL POPULATION GROWTH VERSES PREDICTED POPULATION GROWTH BAROSSA REGION

	Actual % growth in 2021	Actual population in 2021	Predicted growth percentage	Predicted population for 2021
The Plan (2010 version)	1.56 %	75,684 ^{[5] [6]}	3.36 %	90,232

The following observations are made.

- Under the original Plan (2010), the Barossa Region was viewed as a critical region to facilitate population growth;
- The actual population growth rate (1.56%) is lower than the predicted growth rate (3.36 %) under the original plan (2010) for the Northern Adelaide Region, it is higher than the overall predicted population growth rates for Greater Adelaide when compared to both the 2010 Plan (1.18 %) and the 2017 update (1.15 %). With two satellite cities proposed for the region, it is not unreasonable for initial targets to be re-established under the GARP.

1.2.2.2. NORTHERN ADELAIDE REGION

TABLE 2.2(i): POPULATION PERCENTAGE GROWTH IN THE NORTHERN ADELAIDE REGION

	Population 2011	Population 2021	Actual % growth
Elizabeth	9,878 ^[13]	10,829 ^[14]	0.92 %
Elizabeth East	12,165 ^[15]	14,047 ^[16]	1.45 %
Smithfield – Elizabeth North	12,166 ^[17]	12,446 ^[18]	0.22 %
Craigmore – Blakeview	16,193 ^[19]	19,920 ^[20]	2.09 %
Davoren Park	15,558 ^[21]	18,313 ^[22]	1.64 %
Munno Para West – Angle Vale	7,781 ^[23]	16,215 ^[24]	7.62 %
Virginia – Waterloo Corner	3,733 ^[25]	5,693 ^[26]	4.31 %
One Tree Hill	2,403 ^[27]	2,473 ^[28]	0.29 %
Salisbury (Council)	129,109 ^[29]	145,806 ^[30]	1.22 %
Tea Tree Gully (Council)	95,467 ^[31]	101,174 ^[32]	0.58 %
Enfield - Blair Athol	21,560 ^[33]	25,578 ^[34]	1.72 %
Windsor Gardens	18,585 ^[35]	22,587 ^[36]	1.96 %
Northgate – lightsview	3,578 ^[37]	9,274 ^{[38] [39]}	9.99 %
Northfield	3,860 ^[40]	5,043 ^[41]	2.71 %
Oakden	3,665 ^[42]	3,583 ^[43]	-0.22 %
TOTAL	355,701	412,981	1.50 %

TABLE 2.2(ii): PREDICTED PERCENTAGE GROWTH IN THE NORTHERN ADELAIDE REGION

	Population 2011	30-year projected population growth	Predicted % Growth	Predicted Population 2041
The Plan (2010)	355,701	169,000	1.30 %	524,701

TABLE 2.2(iii): ACTUAL GROWTH VERSES PREDICTED POPULATION GROWTH IN NORTHERN ADELAIDE

	Actual % growth 2021	Actual population 2021	Predicted growth %	Predicted population 2021
The Plan (2010)	1.50 %	412,981	1.30 %	404,743

The following observations are made.

- The actual population growth rate (1.5 %) is higher than the predicted growth rate (1.3 %) under the original plan (2010) for the Northern Adelaide Region, it is also higher than the overall predicted population growth rates for Greater Adelaide when compared to both the 2010 Plan (1.18 %) and the 2017 update (1.15 %). The greatest population growth occurred on the urban fringe, showing the importance of greenfield development. The greatest population growth rate occurred within Lightview, an example of infill housing that is primarily supported through broadacre development.

1.2.2.3. SOUTHERN ADELAIDE REGION

TABLE 2.3(i): POPULATION PERCENTAGE GROWTH IN THE SOUTHERN ADELAIDE REGION

	Population 2011	Population 2021	Actual % growth
Mitcham (Council)	62,898 ^[44]	67,617 ^[45]	0.72 %
Marion (Council)	82,991 ^[46]	94,721 ^[47]	1.33 %
Holdfast Bay (Council)	34,605 ^[48]	37,543 ^[49]	0.81 %
Onkaparinga (Council)	159,576 ^[50]	175,204 ^[51]	0.94 %
TOTAL	340,070	375,085	0.98 %

TABLE 2.3(ii): PREDICTED PERCENTAGE GROWTH IN THE SOUTHERN ADELAIDE REGION

	Population 2011	30-year projected population growth	Predicted % Growth	Predicted Population 2041
The Plan (2010)	340,070	82,000	0.72 %	422,070

TABLE 2.3(iii): ACTUAL GROWTH VERSES PREDICTED POPULATION GROWTH IN SOUTHERN ADELAIDE

	Actual % growth 2021	Actual population 2021	Predicted growth %	Predicted population 2021
The Plan (2010)	0.98 %	375,085	0.72 %	365,363

The following observations are made.

- The actual population growth rate (0.98 %) is higher than the predicted growth rate (0.72 %) under the original plan (2010) for the Southern Adelaide Region but is lower than the overall predicted population

growth rates for Greater Adelaide when compared to both the 2010 Plan (1.18 %) and the 2017 update (1.15 %). Lower numbers are an indication of the topographical restraints that confront this region.

1.2.2.4. ADELAIDE HILLS REGION

TABLE 2.4(i): POPULATION PERCENTAGE GROWTH IN THE ADELAIDE HILLS REGION

	Population 2011	Population 2021	Actual % growth
Adelaide Hills (Council)	38,628 ^[52]	40,879 ^[53]	0.57 %
Mount Barker (Council)	29,767 ^[54]	39,217 ^[55]	2.80 %
TOTAL	68,395	80,096	1.59 %

TABLE 2.4(ii): PREDICTED PERCENTAGE GROWTH IN THE ADELAIDE HILLS REGION

	Population 2011	30-year projected population growth	Predicted % growth in 2021	Predicted Population 2041
The Plan (2010)	68,395	29,000	1.19 %	97,395

TABLE 2.4(iii): ACTUAL GROWTH VERSES PREDICTED POPULATION GROWTH IN THE ADELAIDE HILLS

	Actual % growth in 2021	Actual population in 2021	Predicted % growth in 2021	Predicted population 2021
The Plan (2010)	1.59 %	80,096	1.19 %	76,983

The following observations are made.

- The actual population growth rate (1.59 %) is higher than the predicted growth rate (1.19 %) under the original plan (2010) for the Adelaide Hills Region, it is also higher than the overall predicted population growth rates for Greater Adelaide when compared to both the 2010 Plan (1.18 %) and the 2017 update (1.15 %). Mount Barker accounts for a significant part of the population growth and is an example of a successful township expansion.

1.2.2.5. WESTERN ADELAIDE REGION

TABLE 2.5(i): POPULATION PERCENTAGE GROWTH IN THE WESTERN ADELAIDE REGION

	Population 2011	Population 2021	Actual % growth
Port Adelaide (West)	56,601 ^[56]	60,848 ^[57]	0.73 %
Charles Sturt (Council)	104,981 ^[58]	121,840 ^[59]	1.5 %
West Torrens (Council)	54,962 ^[60]	61,699 ^[61]	1.16 %
TOTAL	216,544	244,387	1.22 %

TABLE 2.5(ii): PREDICTED PERCENTAGE GROWTH IN THE WESTERN ADELAIDE REGION

	Population 2011	30-year projected population growth	Predicted % Growth	Predicted Population 2041
The Plan (2010)	216,544	83,000	1.09 %	299,544

TABLE 2.5(iii): ACTUAL GROWTH VERSES PREDICTED POPULATION GROWTH IN WESTERN ADELAIDE

	Actual % growth in 2021	Actual population in 2021	Predicted % growth in 2021	Predicted population 2021
The Plan (2010)	1.22 %	<u>244,387</u>	1.09 %	<u>241,339</u>

The following observations are made.

- The actual population growth rate (1.22 %) is higher than the predicted growth rate (1.09 %) under the original plan (2010) for the Western Adelaide Region, it is also slightly higher than the overall predicted population growth rates for Greater Adelaide when compared to both the 2010 Plan (1.18 %) and the 2017 update (1.15 %). Although growth was steady, higher density development is needed.

1.2.2.6. FLEURIEU REGION

TABLE 2.6(i): POPULATION PERCENTAGE GROWTH IN THE FLEURIEU REGION

	Population 2011	Population 2021	Actual % growth
Yankalilla (council)	4,397 ^[62]	5,834 ^[63]	2.86 %
Victor Harbor (council)	13,841 ^[64]	16,139 ^[65]	1.55 %
Alexandrina (council)	23,699 ^[66]	28,730 ^[67]	1.94 %
TOTAL	41,937	50,703	1.97 %

TABLE 2.6(ii): PREDICTED PERCENTAGE GROWTH IN THE FLEURIEU REGION

	Population 2011	30-year projected population growth	Predicted % growth in 2021	Predicted Population 2041
The Plan (2010)	41,937	22,000	1.41 %	63,937

TABLE 2.6(iii): ACTUAL GROWTH VERSES PREDICTED POPULATION GROWTH IN THE FLEURIEU REGION

	Actual % growth in 2021	Actual population in 2021	Predicted % growth in 2021	Predicted population 2021
The Plan (2010)	1.97 %	<u>50,703</u>	1.41 %	<u>48,239</u>

The following observations are made.

- The actual population growth rate (1.97 %) is higher than the predicted growth rate (1.41 %) under the original plan (2010) for the Fleurieu Region, it is also higher than the overall predicted population growth rates for Greater Adelaide when compared to both the 2010 Plan (1.18%) and the 2017 Update (1.15 %). With two satellite cities proposed for the region, the growth rate (although strong) will need to rise.

1.2.2.7. EASTER ADELAIDE REGION

TABLE 2.7(i): POPULATION PERCENTAGE GROWTH IN THE EASTERN ADELAIDE REGION

	Population 2011	Population 2021	Actual % growth
Eastern Adelaide	**208,669 ^[68]	**232,281 ^[69]	1.07 %

***population figures determined by subtracting Adelaide Hills Region population census data from the Adelaide and Hills population census data.*

TABLE 2.7(ii): PREDICTED PERCENTAGE GROWTH IN THE EASTERN ADELAIDE REGION

	Population 2011	30-year projected population growth	Predicted % growth in 2021	Predicted Population 2041
The Plan (2010)	208,699	65,000	0.91 %	273,699

TABLE 2.7(iii): ACTUAL GROWTH VERSES PREDICTED POPULATION GROWTH IN EASTERN ADELAIDE

	Actual % growth in 2021	Actual population in 2021	Predicted % growth in 2021	Predicted population 2021
The Plan (2010)	1.07 %	<u>232,281</u>	0.91 %	<u>228,487</u>

The following observations are made.

- The actual population growth rate (1.07 %) is higher than the predicted growth rate (0.91 %) under the original plan (2010) for the Eastern Adelaide Region, however is lower than the overall predicted population growth rates for Greater Adelaide when compared to both the 2010 Plan (1.18%) and the 2017 Update (1.15 %). Similar to the Western Adelaide Region, higher density development is needed to support population growth.

1.2.3. GREATER ADELAIDE COMPLETED HOMES VERSES GOVERNMENT TARGETS

Meeting the aspirational home construction target is determined by analysing the average home completions per year. Further to this, an observation of the number of commenced homes provides an indication of the imminent amount of work in this sector.

Although no data is available on the number of finished homes within Greater Adelaide inside the designated boundaries set under the 2010 Plan, statistics are available on the overall South Australian completion rates as well as homes under construction.

TABLE 3A: HOUSING COMPLETION RATES FOR SOUTH AUSTRALIA ^[70] [HIA DATA]

	HOUSES	UNITS	TOTAL	TOTAL
	Completions	Completions	Completions	Under Construction
Mar-11	2,336	576	2,912	8,297
Jun-11	2,316	979	3,295	7,387
Sep-11	1,930	807	2,737	7,395
Dec-11	1,910	625	2,535	6,959
Mar-12	1,836	546	2,382	6,752
Jun-12	1,875	642	2,517	6,182
Sep-12	1,656	599	2,255	5,667
Dec-12	1,558	502	2,060	6,015
Mar-13	1,493	421	1,914	6,145
Jun-13	1,696	458	2,154	6,292
Sep-13	1,731	621	2,352	6,168
Dec-13	1,699	487	2,186	6,945
Mar-14	1,881	364	2,245	7,624
Jun-14	1,654	629	2,283	8,150
Sep-14	2,096	1,014	3,110	7,855
Dec-14	2,139	566	2,705	7,909
Mar-15	2,033	821	2,854	7,503
Jun-15	2,261	741	3,002	7,121
Sep-15	2,103	532	2,635	7,109
Dec-15	1,849	608	2,457	6,915
Mar-16	1,741	735	2,476	7,644
Jun-16	1,698	767	2,465	8,171
Sep-16	1,923	589	2,512	8,080
Dec-16	1,733	723	2,456	8,095
Mar-17	1,912	914	2,826	7,802
Jun-17	1,685	441	2,126	8,835
Sep-17	1,786	739	2,525	9,833
Dec-17	1,965	875	2,840	9,610
Mar-18	1,984	587	2,571	10,745
Jun-18	2,020	778	2,798	10,915
Sep-18	1,784	1,023	2,807	10,835
Dec-18	2,233	1,323	3,556	9,390
Mar-19	2,140	640	2,780	9,121
Jun-19	1,960	913	2,873	8,667
Sep-19	1,522	609	2,131	9,212
Dec-19	1,814	433	2,247	9,537
Mar-20	1,806	824	2,630	9,750
Jun-20	1,759	536	2,295	9,764
Sep-20	2,069	811	2,880	9,529
Dec-20	2,063	579	2,642	9,993
Mar-21	2,162	881	3,043	10,720
Jun-21	1,799	745	2,544	11,818
Sep-21	2,083	471	2,554	12,372
Dec-21	1,864	736	2,600	13,614
Mar-22	1,809	490	2,299	14,426
Jun-22	2,901	635	3,536	14,496
Sep-22	2,736	682	3,418	14,331
Dec-22	2,197	546	2,743	14,039
Mar-23	2,167	458	2,625	14,427
Jun-23	2,129	531	2,660	14,110
	97,496	33,552	131,048	

TABLE 3B: YEARLY AVERAGE OF ACTUAL CONSTRUCTED HOMES IN SOUTH AUSTRALIA

	Actual constructed homes (by 2023)	Average yearly rate of home construction
2011 - 2023	131,048	10,081

***TABLE 3C: HOMES THAT COMMENCED CONSTRUCTION IN REGIONAL AREAS VERSES GREATER ADELAIDE^[70] [HIA DATA]**

	Houses		Multi-units	
	Greater Adelaide	Regional SA	Greater Adelaide	Regional SA
Sep-11	1,279	603	730	215
Dec-11	1,268	533	454	22
Mar-12	1,106	462	375	26
Jun-12	1,164	524	345	20
Sep-12	978	479	302	29
Dec-12	1,287	673	676	18
Mar-13	1,031	406	426	22
Jun-13	1,207	468	708	12
Sep-13	1,363	614	400	11
Dec-13	1,464	627	984	4
Mar-14	1,320	532	822	29
Jun-14	1,667	720	533	16
Sep-14	1,482	537	615	17
Dec-14	1,614	646	704	10
Mar-15	1,310	481	368	8
Jun-15	1,243	467	989	23
Sep-15	1,572	512	587	7
Dec-15	1,316	415	737	6
Mar-16	1,371	439	1,160	11
Jun-16	1,627	435	969	40
Sep-16	1,537	443	572	6
Dec-16	1,637	444	649	7
Mar-17	1,298	352	574	13
Jun-17	1,555	391	1,274	12
Sep-17	1,657	440	1,427	39
Dec-17	1,631	381	878	14
Mar-18	1,470	395	1,629	5
Jun-18	1,760	476	795	1
Sep-18	1,598	409	711	22
Dec-18	1,434	353	762	30
Mar-19	1,341	342	568	10
Jun-19	1,486	373	615	5
Sep-19	1,627	367	799	-
Dec-19	1,599	366	922	10
Mar-20	1,629	321	641	26
Jun-20	1,450	324	599	18
Sep-20	1,863	448	518	14
Dec-20	2,112	587	533	9
Mar-21	2,395	648	459	6
Jun-21	2,247	653	895	22
Sep-21	2,144	587	580	22
Dec-21	2,612	781	805	7
Mar-22	1,796	513	641	2
Jun-22	2,195	642	819	37
Sep-22	2,257	682	517	26
Dec-22	1,756	530	360	27
Mar-23	1,592	569	335	9
TOTAL	74,347	23,390	32,066	945

*** Under census data, both the Fleurieu and Barossa Regions are excluded from Greater Adelaide data.**

- The total number of homes commenced within the census boundaries for Greater Adelaide is **106,413**.
- The total number of homes commenced within the census boundaries for the SA Regional area is **24,335**

1.2.3.1. CALCULATING COMPLETION RATES IN GREATER ADELAIDE

To determine a close approximation of the average yearly rate of completed homes for Greater Adelaide within the boundary lines set under the 2010 Plan, figures shown in Table 3A must be readjusted and split into city verse regional areas and ensure the Barossa and Fleurieu Regions are calculated correctly.

To determine the split, an analysis of the rural population increase reveals the level of growth inside each region. In this analysis, it is acknowledged population growth provides an indicator to the level of housing construction.

TABLE 3D: POPULATION GROWTH IN REGIONAL SOUTH AUSTRALIA (CENSUS DATA)

	Population 2011	Population 2021	population change
Barossa-yorke-mid north	106,519 ^[71]	114,487 ^[72]	+7,968
SA outback	84,619 ^[73]	82,646 ^[74]	-1,973
SA south-east	177,122 ^[75]	193,709 ^[76]	+16,587
TOTAL	368,260	390,842	+22,582

To confirm actual population growth for Greater Adelaide within the boundaries set under the 2010 Plan, both the Barossa and Fleurieu Regions are added to the Greater Adelaide census data and excluded from the Regional SA census data.

TABLE 3E: POPULATION CHANGE IN REGIONAL SOUTH AUSTRALIA -REVISION OF BAROSSA AND FLEURIEU

	Total change	Excluded Regions	Regional SA (minus Barossa/Fleurieu)
Barossa-yorke-mid north	+7,968	4,776 ^{[3] [4] [5] [6]}	+3,192
SA outback	-1,973	N/A	-1,973
SA south-east	+16,587	8,766 ^{[7] [8] [9] [10] [11] [12]}	+7,821
TOTAL	+22,582	13,542	+9,040

TABLE 3F: POPULATION CHANGE IN PERCENTAGE TERMS WITHIN REGIONAL SOUTH AUSTRALIA

Regional SA minus Barossa/Fleurieu	Barossa & Fleurieu Regions	Total change
9,040 (40.03 %)	13,542 (59.97 %)	+22,582 (100 %)

Of the growth that occurred within the census data boundary lines for Regional SA, 59.97% was located inside the Barossa and Fleurieu Regions. The percentage breakdown provides us with estimated numbers of development activity (commenced homes) for both Regional SA and Greater Adelaide within the boundary configurations of the 2010 Plan.

TABLE 3G: COMMENCEMENTS FOR REGIONAL SA (OUTSIDE THE 2010 PLAN BOUNDARY LINES)

	Commencements under census data boundary lines	Barossa/Fleurieu data to be discounted (%) value)	Barossa/Fleurieu data to be discounted (actual numbers)	commencements outside of the 2010 Plan boundary lines
Regional SA	24,335	59.97 %	14,593	9,741

TABLE 3G: COMMENCEMENTS FOR GREATER ADELAIDE (WITHIN 2010 PLAN BOUNDARY LINES)

	Commencements under census data boundary lines	Barossa/Fleurieu data to be included (% value)	Barossa/Fleurieu data to be included (actual numbers)	commencements within the 2010 Plan boundary lines
Greater Adelaide	106,413	59.97 %	14,593	121,006

TABLE 3H: COMMENCEMENTS IN PERCENTAGE VALUES

	Commencements	Total change
Greater Adelaide	121,006	92.54 %
Regional SA	9,741	7.45 %

TABLE 3I: ESTIMATED COMPLETED HOMES IN GREATER ADELAIDE

Total constructed homes in SA (2023)	% of total homes completed in Greater Adelaide	Number of completed homes in Greater Adelaide	Average yearly rate of completed homes
131,048	92.54 %	121,271	9,328

TABLE 3B: ESTIMATED CONSTRUCTED HOMES VERSES TARGETED CONSTRUCTION

	30-year target constructed homes	Target number of homes constructed per year	Estimated completed homes (2023)	Average yearly rate - completed homes
The Plan (2010)	258,000	8,600	121,271	9,328
The Plan (2017)	248,000	8,267	121,271	9,328

The following observations are made.

- The average number of homes completed per year is higher than the target number for both the 2010 Plan and 2017 Update.
- The number of homes under construction over the past year and a half is significantly higher than past averages in SA.
- The yearly average completion rate of homes in SA is likely to be high for the immediate years.

1.2.4. INFILL DEVELOPMENT VERSES GREENFIELD

Both the 2010 Plan and 2017 Update placed a high importance on infill development and a reduction of greenfield activity.

1.2.4.1. INFILL

“New metropolitan housing will gradually move from the existing 50:50 ratio of infill development to fringe development to a ratio of about 70:30” - 2010 Plan (Page 14).

“The Plan aims to progressively change Adelaide’s urban form by containing the outward growth of the metropolitan area” – 2017 Update (page 8).

The 2017 Update was very bullish on infill development, proposing the 70:30 ratio be altered to an 85:15 ratio. Statements were made within this plan suggesting community housing preferences were shifting to terrace houses, units and apartments, and that there was a shortage of infill opportunities next to public transport, jobs and services.

Interestingly, a critical policy position nominated under the 2010 Plan to implement such development was removed under the 2017 Update. Transit-Oriented Development (TOD), defined as high density development centred on major public transport routes, formed an important part of meeting original aspirational infill targets of “25-35 dwellings per hectare”.

Any reference to TOD's were abandoned under the 2017 Update, effectively dismissing one of the legislative instrument that could successfully underpin a strategy based on infill.

Of the 14 sites nominated under the 2010 Plan, only Bowden could be deemed successfully. Factors that contributed to the failure of the TOD implementation include

- Lack of adequate existing public transport infrastructure;
- The cost associated with establishing such infrastructure; and
- The lack of community demand for high density living.

1.2.4.2. GREENFIELD

“Analysis of emerging trends and evidence suggests that greater numbers of people are choosing to live closer to the city in varied forms of housing. This has meant that there has been less pressure than assumed on the fringe and in townships.” – 2017 Update (page 19)

Contrary to the statements made under the 2017 Update, statistical data shows that demand for greenfield development since the inception of the 30-Year Plan has been solid, and that it has significantly supported population growth on the fringes of Adelaide.

To the north, suburbs such as Munno Para West, Angle Vale and Waterloo Corner have had high population growth rates compared to most suburban areas. Further north, the expansion of Roseworthy and Two Wells have also supported larger populations growth rates, with the later experiencing a 3.89 % increase.^{[77] [78]}

To the South of Adelaide, Seaford Meadows has had a significant rise in population of 11.93 %^{[79] [80]}, making it one of the highest growing regions in Greater Adelaide.

1.3. SUMMARY OF THE 30-YEAR PLAN

- 1) **The 2010 Plan and the 2017 Update provided a targeted population growth lower than the actual population growth rate.**

- 2) **The propositions under the 2017 Update were significantly flawed.**

Lowering the revised population growth rate and home completion target was a mistake. The lack of housing affordability and the rental crisis can be partly attributed to this error. Furthermore, disregarding satellite cities as a strategic policy was also an error.

“Evidence is now emerging that over-reliance on this model of growth will not serve us well into the future.” - 2017 Update (page 63)

Given the high distribution of population growth in townships like Mount Barker, the assumption that community preferences for high density development have been proven to be misleading.

- 3) **Achieving population growth targets could not have been achieved without large scale greenfield activity on the fringes of Adelaide.**

Significant population increases within Greater Adelaide occurred on the periphery northern suburban areas of Munno Para West and Angle Vale (7.6 %)^{[81] [82]}, showing a higher-than-average growth rate. Primarily enabled by greenfield development.

- 4) **Townships such as Two Wells and Roseworthy cannot facilitate the growth necessary to meet target numbers as managed under the EFPA.**

The introduction of the Environment and Food Production Area (EFPA) in the 2017 Update has constrained the available land on which satellite cities can grow. The rate of population growth in the Barossa Region is subsequently lower than the target number identified in the 2010 Plan.

- 5) **There will be a greater reliance on fringe development hereon in to achieve target numbers.**

Broadhectare infill sites ably assisted population growth targets being met in the north and west of Adelaide, specifically Northgate - Lightsview (9.99 %)^{[37] [38] [39]} and Woodville - St Clair (8.11 %)^{[83] [84] [85]}. With that said, broadhectare infill opportunities are being exhausted.

- 6) **A significantly higher population growth rate target is necessary for the GARP.**

Except for the Eastern Adelaide Region and Southern Adelaide Region, population growth rates in the remaining regions exceeded the target rates nominated under the 2010 Plan and the 2017 Update.

- 7) **A higher target number of new homes is needed under the GARP.**

The yearly average number of homes completed is above the target number nominated in the 2010 Plan and the 2017 Update. This outcome can be explained by the actual population growth rate exceeding expectations.

8) **Statements within the 2017 Update suggesting sufficient land is available are proven as inaccurate.**

The GARP discussion paper advises 15 years of land supply is available and that further planning is needed for the following 15 years. Given that the 15-year timeframe for land supply falls short of the original 30-Year Plan deadline, it is evidence that projected figures promoted in both the 2010 Plan and 2017 Update fell short of the required numbers. HIA implores the Government not to take a conservative approach when setting targets under the GARP.

2. REVIEW OF THE GARP

2.1. OBJECTIVE

The GARP was release for public consultation with the intent to replace the 30-Year Plan for Greater Adelaide. Two questions are raised which form the basis of discussion.

- 1) How should Greater Adelaide grow?
- 2) Where should Greater Adelaide grow?

The public is asked to make comment on where houses and employment land should be designated, how housing and population is to be serviced, which areas need conserving and what major infrastructure is needed.

Policy projections include the following.

- Adelaide's population may grow by as much as 670,000.
- 300,000 homes will be needed to manage such growth.

A population growth rate of approximately 1.19 % is forecast with an average of 10,000 homes constructed each year. To assist with the formation of strategy, 16 state planning policies provide guidance.

2.2. ENVIRONMENT AND FOOD PRODUCTION AREA

As stated in HIA Policy *Managing Urban Land Supplies* (see Appendix), we are opposed to urban growth boundaries of which the Environment and Food Production Area is equivalent (herein referred to as the EFPA). HIA's opposition to urban growth boundaries is on the basis that it restricts the management of urban land supplies. Nevertheless, the purpose of our submission is to provide constructive feedback that assists the state in making an informed decision.

When looking for evidence justifying our position, one only needs to examine the two documents used by the State as reference tools for the planning reform, *Cost and Benefits of Stormwater Management Options* and *Cost and Benefits of Urban Tree Canopy Options*.

"There is evidence minor infill has contributed to a significant increase in peak flows, the frequency and volume of runoff, and exported pollutant load. This is because infill development increases density and can create up to 90 per cent impervious surfaces, which is considered 2.5 times higher than most existing drainage systems were designed for." - (Costs and Benefits of Stormwater Management Options for Minor Infill Development in Planning and Design Code 2020, p. iii)

"There is evidence minor infill has contributed to a significant reduction in green cover in many neighbourhoods. This is because infill development generally increases site coverage and driveway crossovers, and reduces space for gardens and tree planting, creating up to 90 per cent impervious surfaces." - (Costs and Benefits of Urban Tree Canopy Options for Minor Infill Development in the Planning and Design Code 2020, p. iii)

To ensure pressures exerted onto existing infrastructure do not go over critical mass, a balance between greenfield and Infill is required to facilitate sustainable growth. Infill (by itself) cannot be seen as the primary

response to land release but rather part of an equal equation that includes undeveloped zones and future urban growth areas.

HIA disagrees in having a designated ratio for infill/greenfield development, especially one that is imbalanced to an 85:15 split as outlined in the 2017 Plan. The GARP calls for an increase in the supply and variety of housing, with a view to improve affordability. For this to be achieved (as a whole), **HIA recommends no infill limits are legislated and that consumer demand dictates progress.**

It is recognised that three areas within the outer regions of Greater Adelaide are scheduled for high scale greenfield activity, namely Hackham, Concordia and Sellicks Beach. In each instance, the supply of land falls next to or within the EFPA. This means expansions will be restricted and valuable time lost. The same issue confronts development around proposed satellite cities Victor Harbour, Goolwa and Murray Bridge.

Acknowledging this development restrains, **HIA calls for the EFPA to be removed to better manage population influx.**

2.3. INFRASTRUCTURE

HIA understands the purpose of the GARP is to provide spatial configurations accompanying major transport routes. Most critical to successful implementation of state policy is the identification of main structural roads and arterial networks within proposed satellite cities. To this extend, the government must establish what land is required to provide essential infrastructure.

HIA does support the promotion of satellite cities as stated in the GARP and calls on the government to make investments into existing roads and highways leading to these designated townships. Governments have a responsibility to implement infrastructure programs that sustainably support anticipated growth in a manner that ensures the investment cost is shared equitably across the whole community.

As stated in HIA Policy *Government Infrastructure Investment* (see Appendix), Infrastructure provision should be planned, developed, and implemented in a coordinated manner by all levels of government, state, regional and local in consultation with the residential building and development industry. This includes infrastructure designed within master planned zones.

Although not specifically in the gambit of the GARP, **HIA would like to make it clear that we do not support delivery costs for main infrastructure being transferring onto developers** and call for sensible designs to ensure government is the primary body equipped to facilitate installation.

Up-front charges and levies against a new development erode housing affordability and are the least efficient way infrastructure costs are recovered, this is referred to in HIA policy *Infrastructure Charges and Levies on Residential Development* (see Appendix).

2.4. URBAN GREENING STRATEGY

The GARP provides comment on climate conservation, placing importance on an urban greening strategy. Such strategy is currently enforced through the Planning and Design Code (herein referred to as the P&D Code), it requires new housing development to foster tree regeneration within private property.

Data collected by the Government suggested Adelaide is losing tree coverage, resulting in warmer ground level temperatures and (in turn) higher energy use. What has not been clearly articulated is the affect

surrounding tree coverage has on thermal heat gains for buildings, in particular the reduction of solar radiation required as part of energy efficiency star ratings.

The consequences of urban tree canopy policy have not been thoroughly understood, nor the dramatic affect it has on housing designs and their footings. Several factors not adequately addressed since the adoption of the tree canopy overlay include.

- **Conflict of objectives.** The P&D Code implores housing proposals maximise sunlight into buildings, yet the Urban Tree Overlay produces an outcome that reduces natural light because of shading.
- **Logistical difficulties in achieving compliance.** Authorities are under resourced to enforce planting, let alone maintenance.
- **Tree effect on neighbouring properties.** It is recognised that trees negatively impact housing, undermining footings due to root invasion. The locality of mandatory trees on neighbouring allotments is not considered under the P&D Code, meaning their positioning has the potential to adversely affect surround land and property.
- **Housing affordability in suburban neighbourhoods.** Engineers are now designing all footings to resist “tree affect”, regardless of the existing site conditions. Because engineers are unable to determine tree proximity on neighbouring sites, particularly within new subdivisions, engineers maybe required to design footings over and above what is required at significant extra cost.

Acknowledging tree planting activities are difficult to administer, negatively influence affordability and can reduce the lifetime of a building, **HIA believes mandatory tree planting should be administered on government property and not that of the rate payer. Furthermore, the tree canopy off-set scheme ought to be revoked.**

CONCLUSION

HIA believes the review of the state planning system should respond to long term policy principles set by the Government. We welcome practical solutions that address policies aimed at facilitating a liveable city with greater housing choice.

The overarching criteria of a review must consider the community's capacity to embrace and apply the changes. Our industry, already hurting because of material shortages and a lack of tradespeople, is under enormous pressure. A balancing act must be performed by the government when instigating system changes and improvements for the purpose of clarity and building productivity.

An efficient planning system relies on the speed of delivery and quality outcomes; the formation of strategic policies set under the GARP is critical in achieving such goals. If the targets are incorrect, delivery will be stifled adding to the cost-of-living pressures. This is the situation the State currently finds itself in, a position partly created by the conservative policies set under the 2017 Update.

The GARP asked the public two major questions, of which we are happy to provide a response for each.

Q1. HOW SHOULD GREATER ADELAIDE GROW?

Greater Adelaide needs to grow quicker than was anticipated under the 30-Year Plan, this is made evident by the census data on population growth. Not only must the figures proposed within the GARP be adjusted upwards, but also the speed of delivery should be outlined in the strategy.

Nominated locations for growth must be treated as urgent and contain stringent timeframes to ensure authorities in charge of administering major subdivisions are kept accountable. 10-year targets should be set for all proposed greenfield development.

HIA RECOMMENDATION 1.

That the target population growth for Greater Adelaide be increased to at least match the actual growth rate.

This submission has provided evidence showing that the rate of population growth is higher than the targets released under the 2010 Plan and 2017 Update. While rate of growth was anticipated to be 1.18% (2010), census data reveals the actual growth was 1.29%. At this current rate, our population will be approximately 45,000 more than the target set under the 2010 Plan and 60,000 more when compared to the 2017 Update.

The 30-Year Plan was wrong, and we believe the GARP is also wrong. We hope the Government does not make the same mistake by underestimating Adelaide's progress for the next thirty years.

In summary, Greater Adelaide needs to be growing at a rate quicker than anticipated. The suggested target is 670,000 at a growth of approximate 1.19%. Using empirical evidence to support our argument, HIA strongly believes this needs to be higher.

HIA RECOMMENDATION 2.

The aspirational number of homes shall be raised to meet Federal Government targets.

The Federal Government has set a target of 1.2 million homes to be built within the next 5 years. If South Australia receives its share of the stimulus, approximately 83,750 houses are needed at an average of 16,750 per year.

Although yearly averages have historically ranged between 9,000 and 12,000 homes, the target established by the Federal Government is only slightly higher than the current average of housing commencements over the past 18 months. Acknowledging the introduction of HomeBuilder has boosted construction activity, the high number of commencements will likely remain consistent for the remainder of this decade.

Q2. WHERE SHOULD GREATER ADELAIDE GROW?

Greater Adelaide should grow both within its suburbs and at the periphery, including peri-urban and townships. It is noted the GARP refers to the 85:15 infill/greenfield ratio set under the 2017 Update.

“These targets were set to facilitate more development within the urban footprint, using existing infrastructure and connections to jobs and services. But high volumes of infill development in suburban areas have fuelled community concerns about design quality, amenity, tree loss and parking availability.” – the GARP (page 110).

HIA does not endorse a ratio and believes a combination of development types should be employed to meet population growth, inclusive of greenfield, township expansions and infill. Most critical is the timely manner in which infrastructure provisions are catered for.

Any legislative barrier that restricts housing opportunities ought not be considered if the outcome is more a development deterrent rather than a community benefit.

HIA RECOMMENDATION 3.

Remove any reference to an infill/greenfield ratio; That strategic policies set under the GARP have enough flexibility to allow consumer demand dictate population growth.

Based on Government figures released within their document “Land Supply Report for Greater Adelaide” 2023, (herein referred to as the Report) there will be a shortage of land in South Australia for residential development. Therefore, all parts of Greater Adelaide must play a part in the provision of land/property to meet population growth.

The Report identifies an availability of 203,759 lots in total for Greater Adelaide. This is equivalent to 13,584 per annum over 15 years, lower than South Australia’s annual share of the Commonwealth Government’s initiative for additional housing over the next 5 years.

Under both the 2010 Plan and 2017 Update, infill was seen as a major contributor towards meeting population targets. The disproportionate response (infill/greenfield split) was dependent on two planning strategies, the supply of land through broadacre infill and the implementation of high-density development concentrated around transport hubs (TOD’s).

While broadacre development within suburban areas provides good outcomes, the lack of such land ultimately makes this proposition unsustainable in the long term and difficult in the short term.

“Finding new larger infill sites will take time and coordination between landowners, councils, the community and government.” – GARP (page 10)

In addition to this, failure of the TOD concept places a greater reliance on Greenfield development in lieu of infill.

HIA RECOMMENDATION 4.

Revoke the boundary configurations of the Environment and Food Production Area.

The subdivision of land must be considered on merits with the surrounding amenity as well as economic prosperity. A stringent process exists for rezoning, it should not be contrived by rigid statements. HIA Policy *Principles of a Good Planning System* (see Appendix) alludes to this, planning policies should include both performance objectives and prescriptive standards that provide a degree of flexibility and support changing housing market trends and innovation in housing design and technology.

Most importantly, guidelines for large subdivisions ought to be developed through master planning. Negotiation procedures between public and private sectors must be consistent and timely yet have enough flexibility to account for local conditions in conjunction with other regulatory provisions.

Major subdivision developments take a long time to implement. HIA figures suggest three and a half years from the approval date to home completion is the best-case scenario, although most developments take longer. It is imperative barriers which inhibit the progress of construction are removed.

Post-COVID has shown us how rapidly social and work routines can change, and that planning 30 years in advance is a difficult proposition. The GARP reveals that major growth areas are hindered by the EFPA, so now is the time to revoke it.

HIA RECOMMENDATION 5.

Promote the growth of satellite cities, ably supported by existing and proposed infrastructure.

HIA endorses the concept of satellite cities sustaining population growth as identified in the GARP and advocate the use of existing transport routes to help facilitate their growth,.

Any future proposals for new major transport routes must be primarily supported by Government. Where infrastructure is proposed within master planned development, a shared responsibility is required between all stakeholders, including Government and consumers.

While satellite cities are a great initiative, the time associated with their establishment must be factored into account. The expansion of Roseworthy provides good insight into the time lag, taking six years from approval to shovel ready allotments.

"The Roseworthy Township Expansion (RTE) moved from planning to on-ground works during the 2020/21 financial year after a very long lead time" – Light Regional Council [\[86\]](#)

Knowing a current shortage of land supply exists, and that expansions are a 10-year proposition, the initiation of re-zoning within townships ought to be placed as a high priority. A statement of this effect must be outlined within the GARP.

HIA RECOMMENDATION 6.

Restrict the urban greening strategy to Government and Crown land.

A policy that deals with a "greener" Adelaide can only be truly administered by the authorities who regulate these provisions. HIA believes the GARP should only identify Government owned areas in which tree planting/regeneration activities occur.

The current P&D Code policy dictates individual property owners must support tree planting and ongoing maintenance. This is onerous, especially when droughts are experienced. Furthermore, councils simply do not have enough resources and time to attend to tree audits.

Trees effect soil conditions, detrimentally impacting on building construction. This meaning additional materials are needed to meet compliance i.e. strengthening of footings, having a direct effect on housing affordability. HIA does not support a policy which contributes to cost-of-living pressures.

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Principles of a Good Planning System

Policy Background

- In 2001, HIA launched a national position statement on planning systems, known as Better Living Environments. The position statement focused on three core tenants – flexibility, predictability and affordability. Within these tenants, various case studies and examples of good planning practices that would assist in the delivery of new land and housing were identified.
- Following Better Living Environments HIA has developed a series of policy statements that address individual elements of the planning system, covering issues such as ‘truth in zoning’, managing urban land supply, development contributions, subsidised affordable housing and more. Today these planning policy statements form the basis of HIA’s advocacy for an improved planning system.
- It was agreed there would be benefit in creating a statement that concisely sets out the fundamentals of a good planning system that can serve as a foundation statement on the planning system and the delivery of land and residential developments.

Policy Issues

- In the absence of other regulatory levers, the planning system is now seen as the panacea for any matter that governments believe warrants oversight, making the system extremely complex for all parties to navigate.
- Over the last decade, policy makers have sought to address a growing list of social and environmental issues that have not traditionally been matters for consideration in the planning system.
- A planning system must recognise the importance of delivering housing affordable outcomes. This can only be achieved where the planning system manages the zoning of land and the development of that land in a timely manner balancing the social, economic and environmental benefit of the whole community.

HIA’s Policy Position on Principles of a Good Planning System

1. Certainty

- a. The planning system must provide certainty to those utilising it.
- b. Planning codes and policy must be clearly written to provide certainty to the users and planning authorities of the items that are required to be addressed and the available scope for discretion in decision making.
- c. Assessment and determination processes must be reasonable, efficient and relevant to the zoning of the land and other known constraints on the land.
- d. The planning system should seek to eliminate repetition and duplication of information requests and assessments.
- e. Planning application requirements must not overlap or exceed building application requirements.

- f. Planning systems must support truth in zoning by facilitating the development of permitted land uses within each zone.
- g. Planning systems should not permit the retrospective application of 'new' requirements or constraints unless compensation is provided to property owners who lose a development right.
- h. Fees and charges for planning services should reflect the cost of assessment, be readily calculated and be disclosed prior to lodgement of any application.
- i. Planning codes and policies should not incorporate technical building requirements.

2. Consistency

- a. Policies developed to guide planning decisions must be written in concise language and be readily and consistently interpreted.
- b. The planning system should support consistency of outcomes by providing adequate guidance for design development and decision making.
- c. Planning design codes should be applied at the highest level (i.e. state government) to avoid ad-hoc design standards across individual local council areas.

3. Flexibility

- a. Planning codes and policy should include both performance objectives and prescriptive standards to provide a degree of flexibility and support changing housing market trends and innovation in housing design and technology.

4. Transparency

- a. The planning system should be transparent to the community and the development industry.
- b. Planning decisions should be easily understood and have limited potential for real or perceived intervention or influence.

5. Simple, clear processes

- a. The planning system should provide processes that do not create undue regulatory burdens for users.
- b. Information requirements should be concise, with clear obligations, steps and timelines for the provision of details to the planning authority by an applicant.
- c. Planning assessment and determination processes must be reasonable, efficient and relevant to the zoning of the land and type of development proposed.
- d. The planning and building systems must provide a single approval pathway for single dwellings and dual occupancy dwellings on land zoned for residential development.

6. Strategically led planning

- a. The planning system should embed a strategic approach to spatial planning which balances competing priorities and requires planning authorities to take a holistic approach to achieving planning outcomes, recognising a balance between economic, social and environmental factors.

7. Independent, merit based decisions

- b. Planning decisions should be made by informed, independent parties based on the merits of the application, compliance with any relevant statutory requirements and a sound evidence base.

8. Accountability for decisions

- a. Planning system should provide clear accountability for the decision making processes and the decisions made on behalf of the community.
- b. All planning decisions (zoning, subdivision, development) should be provided with a right of appeal to an independent administrative body.
- c. The planning system should not allow multiple planning authorities or agencies to be responsible for overlapping requirements or the duplication of requirements and approval obligations.

9. Outcome oriented decisions

- a. Decisions in an effective planning system must be focused on the outcomes, rather than details that have little bearing on the impact of development on the community.
- b. The planning system should facilitate:
 - i. The development of land in an economically viable manner in accordance with its zoning.
 - ii. The timely zoning of land for residential purposes based on a transparent strategic assessment involving all relevant agencies with clear roles and responsibilities for all stakeholders.
 - iii. Governments managing land supply, in consultation with the residential development industry, to ensure there is an adequate supply of land at each stage of the land supply pipeline.
 - iv. The delivery of public infrastructure that supports residential land zoning and development in a timely manner for the social and environmental benefit of the whole community.

10. Timely decision making

- a. Timely decision making means compliance with statutory timeframes where they exist, recognition of the importance of economic investment that results from development approvals and agreement between decision makers and applicants on a program to decision making.



Planning Reform

Policy Background

- Technical standards used for the construction of housing across Australia operate through a national building code. Yet each State and Territory presently operates under planning legislation which is not nationally consistent.
- The impact of state based planning legislation and local housing policies and codes on the housing sector is becoming increasingly evident.
- The cost of delays and the growing gap between the demand for, and the supply of, housing is in many cases directly related to inefficiencies in planning systems.
- State and local governments are seeking to address emerging issues, including some technical construction aspects, through their planning systems, rather than seek changes to the national building code.
- Improvements in the planning system can significantly reduce approval delays and therefore improve the supply and delivery of housing to the market at an affordable price.

Policy Issues

- Planning systems around Australia are characterised by complex and varied zoning controls, definitions and requirements in different council areas.
- The planning process is increasingly becoming complicated and unpredictable with varied requirements for housing, depending on its location.
- Growing planning systems are characterised by their complexity, lengthy approval times and requirements for design compliance at significant cost to industry and the home buying public including:
 - a significant increase in the number of proposals that now require planning approval;
 - greater opportunity being afforded to third parties to influence the decision making process;
 - an increase in the number of referral agencies and an increase in the time taken to process referrals;
 - a myriad of 'additional' issues imposed through local policies and codes coming into play – which at best are subjective and uncoded.
 - government's continued monopoly in undertaking all development assessment work, accompanied by a shortage of skilled planning and associated staff, particularly at the local government level;
 - the rigid application of development standards that generally discourage housing mix and choice and limits the ability of the market to deliver accommodation types that suit demand.
- If the housing industry is to operate successfully in Australia, red tape and bureaucratic differences in the planning system need to be slashed.
- The core of reform should be based around predictability with the ability to clearly demonstrate that a proposal meets performance guidelines, legislated standards or codes.

HIA's Policy Statement on Planning Reform

supports:

1. Consistent planning regulation, with standardised approaches to planning scheme layouts, appropriate levels of assessment for development types and clear frameworks for the introduction of changes which affect building fabric and design.
2. Planning performance being subject to a continual benchmark program that binds all levels of government to ongoing and consistent planning practice improvements – including the potential for them to be tied to national competition policy payments.
3. Mandatory Regulatory Impact Statements for new planning requirements. This includes a comprehensive cost benefit analysis with a particular emphasis on housing affordability by any level of government seeking to introduce new planning regulation recognising that there can be economic, social and environmental benefits from a proposal. The cost benefit analysis must be positive for any new planning requirements to be introduced.
4. Housing affordability as an objective in all state planning legislation, local and regional planning schemes.
5. Streamlining of planning systems which includes the use of:
 - standardised planning requirements;
 - prescribed third party notification and timely processes for referrals;
 - as of right approvals on complying residential approvals;
 - simplified referral processes;
 - the involvement of the private sector in the planning approvals process including necessary engineering approvals required following planning approval;
 - e-Planning processes for lodgement and assessment of planning approvals; and
 - the implementation of independent Development Assessment Panels (DAPs) or regional decision making bodies, where approvals are not determined by delegation.
 - Further detail on each of these initiatives is outlined in Attachment A.
 - HIA does not support:
6. Technical regulation introduced through planning systems in particular, prescribed minimum requirements, which should be applied through the Building Code of Australia (BCA) or which are in conflict with existing standards in the BCA and Australian Standards.

Attachment A: HIA Planning Reform Principles

The following principles should be considered by governments for implementation to streamline planning systems.

There are a number of ways in which planning processes can be streamlined. As a basis for planning reform, lobbying around the following principles is considered desirable:

Model Planning Schemes

Consistency on all planning schemes is desirable and gives a sense of certainty to the industry and reduces red tape for both local government authorities and applicants.

HIA supports:

- The development of standardised or state planning schemes incorporating standard principles (format, zones, definition, etc.) as a way of providing certainty for all councils in their respective planning schemes.

As of Right Development – One Approval – Code Assess

If land is zoned for a certain purpose e.g. residential use, the community should have an expectation that it will be used for this purpose – in accordance with the guiding development principles established either by state or local government.

Where planning approval is required for housing in a residential zone, a simplified approval process should be available.

HIA supports:

- Standardised 'as-of-right' development as an appropriate approach for development of a routine nature to ensure only a single approval is required for housing development.
- If an application for development approval is not determined within the legislated decision making timeframe, including any extension of the period, then the application should be deemed to have been approved.

Third Party Objections

In all development proposals third party appeal objections and appeal rights which are available in some states can be a source of lengthy delay in the approval of developments, particularly when many proposals comply with Council planning schemes. Expansion of third party appeal rights which would exacerbate this problem is not supported.

HIA supports:

- If land is appropriately zoned for residential use, third party appeal rights should not apply for complying developments.
- Clarification of notification procedures on a state-wide basis to avoid subjective analysis by Council officers as to who is affected by a residential development.

Referrals

Referral procedures by councils are causing delays and costs in the planning approval process.

A simplified referral process including the potential for a one stop shop process which allows for earlier consultation on issues is desirable with standardised time frames for responses and cooperative dispute resolution.

The housing industry expects certainty in the decision making process and believes that the consent authority should have the responsibility to weigh up conflicting referral responses and independently make a decision in the required statutory time frame.

HIA supports:

- A review of appeal and referral procedures by state and local governments.
- A standardised process for application referrals including time frames and co-operative dispute resolution.
- Consent authorities having responsibility for weighing up conflicting referral responses and independently make a decision.
- A third party being allowed to undertake the referral process independent from authorities.

Private Certification (see HIA Policy *Certification in Planning*)

Private involvement in the planning process, subject to clear pre-set rules and procedures, does not threaten the roles and responsibilities of Local Councils or similar consent authorities.

Private involvement in planning assessments can take a number of forms that can assist council. If undertaken carefully, private certification can free Council staff from non-discretionary duties, allowing more time for merit-based assessments.

HIA supports:

- The introduction of private sector involvement in development assessment processes, both on a formalised and informal basis. Practitioners should be subject to transparency and accountability requirements.
- Mandatory requirements that Councils must offer private certification as an alternative for proponents to progress planning applications in a timely and efficient manner.

e-Planning

Significant opportunity exists for streamlining the planning process through electronic processes. The supply of relevant information via local government websites coupled with the electronic planning application lodgement and issue of approvals is a way of reducing housing costs.

HIA supports:

- The development and application of electronic processes for the lodgement, viewing tracking and issue of planning approvals by local and state governments.

Development Assessment Panels (DAPS)

Independent Development Assessment Panels (DAPS) can assist the planning process by providing a balance between technical planning advice and local knowledge. They can also assist the planning process by providing independent decisions in a timely manner. DAPs can offer certainty and a consistent interpretation of planning codes.

HIA supports:

- The implementation of independent Development Assessment Panels as a means of improving the planning process as they provide certainty, consistency and transparency in the decision making process.
- The setting of clear thresholds as to which applications should be considered by a Development Assessment Panel.



Government Infrastructure Investment

Policy Background

- The timely delivery of infrastructure drives regional growth, employment and housing development opportunities. Productivity enhancing infrastructure is good policy.
- Governments have a responsibility to implement infrastructure programs to sustainably support anticipated growth in a manner that ensures the investment cost is shared equitably across the whole community.
- Since the early 1990s various state governments have pursued a policy to eliminate debt and in doing so have effectively transferred the cost for the delivery of public infrastructure, particularly local, onto new home buyers resulting in an artificial increase in the price of a new dwelling.
- In doing so, many state governments have recorded substantial budget surpluses – significantly funded by relatively high rising property taxes and infrastructure expenditure cutbacks.

Policy Issues

- Governments at all levels have taken a position to reduce borrowing funds for public infrastructure.
- This position has seen a slowdown in the delivery of large infrastructure projects while at the local level there has been a shift of costs to place the burden of funding community infrastructure directly on new home buyers.
- Local governments are increasingly being challenged to deliver community infrastructure on a limited funding base, against increasing land prices.
- Charges on new home construction to directly fund the delivery of local, regional and state infrastructure have increased in cost and scope over the last decade.

HIA's Policy Position on Government Infrastructure Investment

1. HIA advocates the provision of infrastructure to meet community needs and expectations.
2. Infrastructure provision should be planned, developed, and implemented in a coordinated manner by all levels of government, state, regional and local in consultation with the residential building and development industry.
3. Government infrastructure investment should incorporate strategies that take account of the benefits in delivery and costs that can result from integrating land use and transport planning.
4. Infrastructure provision and funding must have a minimal impact on the affordability of new housing. The funding of infrastructure should be calculated over the full life of the asset and recognise future user pay charges that may apply.
5. As beneficiaries of the provision of new infrastructure the whole community should share the cost of that benefit, by funding the delivery through any of the following mechanisms:
 - a. Government direct funding;
 - b. Government borrowings;
 - c. Tax effective infrastructure bonds (including those raised by public subscription);

- d. Public private partnerships that demonstrate clear public interest;
 - e. General rate levies across the whole community; or
 - f. User pay charges.
- 6. Value capture funding mechanisms are not supported as they represent a tax on development which distorts the property market and impacts on housing affordability.
- 7. Governments should:
 - a. Invest in new technology driven infrastructure; and
 - b. Lead the way by removing institutional barriers to infrastructure funding and development.



Infrastructure Charges and Levies on Residential Development

Policy Background

- Levies and charges applied to development to cover physical and social infrastructure significantly affect new housing affordability. They are in effect a tax on new homebuyers.
- Most states and territories, through the planning system, can apply a charge on new residential developments via an infrastructure development contribution scheme of some type.
- Over the last decade, the charges being applied through these infrastructure development levy schemes have become increasingly significant. This is partially due the large range and high quality of facilities being requested by authorities and in many cases a conscious decision to shift the majority of the upfront costs onto new developments.
- The levies are now so significant they are impeding orderly and affordable residential development from occurring and significantly adding to the upfront costs of new homes.
- State governments have recognised the negative impact levies have on residential development and introduced ways to slow increases through either standard development levies or capped development levies. However, there is no clear evidence this approach has lowered the charges payable and improved the final cost of a new home.
- Some councils are attempting their own approach to the levies which can result in more levies and varied amounts being charged.

Policy Issues

- Development charges and levies can encompass two types of infrastructure provision:
 1. *Development specific infrastructure* – being items which are directly attributable to new development, defined as those items that are necessary to create the allotment without which the development could not proceed, for example:
 - local roads;
 - drainage;
 - stormwater;
 - utilities provision;
 - land for local open space; and
 - direct costs of connecting to local water, sewerage and power supplies.
 2. *Community, Social and Regional Infrastructure* – being items of broader physical, community and social infrastructure which are ancillary to the direct provision of housing in a new development and support residents outside that development, for example:
 - headworks for water, sewerage and power supplies which may be part of a specific contributions plan;

- community facilities such as schools, libraries, child care facilities, medical centres and retail facilities;
 - district and regional improvements such as parks, open space and capital repairs;
 - social improvements such as library books;
 - public transport capital improvements;
 - district and regional road improvements;
 - employment services;
 - subsidised housing; and
 - conservation of natural resources.
- Levies for community, social and regional infrastructure are typically applied by either local and/or state governments through the planning system.
 - In many cases the levies are charged without the establishment of a nexus between the infrastructure item and the community who will benefit and use it, without transparency in the collection and without any consideration of the impact on housing affordability.
 - Levies of this kind are being viewed as a primary funding source for community, social and regional infrastructure, despite the benefits from that infrastructure being enjoyed by the whole community.
 - Whilst development specific infrastructure has a nexus with the allotment or building and directly benefit future home owners community social and regional infrastructure may have limited or no nexus with the population who will occupy the homes in a new development.
 - Many items of community, social and regional infrastructure end up in private ownership and are operated on a commercial basis once delivered, such as child care and medical centres. This represents a double charge for new home buyers.
 - Every dollar charged in infrastructure contributions adds multiple dollars to the end price of a home as a result of multiple factors including delays in the calculation and setting of the levies, the uncertainty of this process and associated risks, the delays in developments commencing and increased mortgage repayments by the developer and the homebuyer required over time.

HIA's Policy Position on Infrastructure Charges and Levies on Residential Development

1. *Development specific infrastructure* which provides essential access and service provision and without which the development could not proceed are considered to be core requirements for housing development and should be provided in a timely manner to facilitate affordable development. These infrastructure items within the boundaries of the development should be provided by the developer as part of the cost of development.
2. An up-front charge against a new development is the least efficient manner in which infrastructure costs may be recovered.
3. The costs of broader *community, social and regional infrastructure* should be borne by the whole community and funded from general rate revenue, borrowings or alternative funding mechanisms.
4. The imposition of up-front levies on new homebuyers for *community, social and regional infrastructure* is inequitable, discriminatory, inflationary and erodes housing affordability.
5. Where up-front infrastructure levies currently exist for *community, social and regional infrastructure* and until such time as these levies are eradicated in line with dot points 1-4 above:
 - The establishment and calculation should be identified by the authority and be embedded within a statutory planning instrument prepared at the time of approval of land for urban development;

- Governments should be required to prepare a full cost benefit analysis of the impact of any proposed infrastructure levy on housing affordability prior to any implementation;
 - The manner in which the up-front levies are costed should be transparent and cover capital and implementation costs only. All ongoing and maintenance costs should be recovered by means of an annual rate or charge and not permitted to be part of the levy calculation;
 - Any levies implemented should provide certainty and consistency for future development and home owners about the infrastructure to be delivered, costs to be funded and timing of delivery;
 - Levies should be collected at the latest stage of the development process, just prior to the creation of legal title or prior to occupation;
 - Once adopted levies should not be subject to any change or variation apart from defined cost of living increases or similar indexation to allow for inflation;
 - The amounts collected should be fully disclosed and reported to State Parliament annually and also reported by local councils to their own communities via annual reports.
6. Levies which are applied by Governments for state based items of infrastructure should be:
- Established and collected in the same manner as those collected by local government as established above; and
 - Expended in the same area from which they were collected.
7. Any funds which have been collected for infrastructure which is not subsequently provided within the planned timeframes should be refunded to the property owner of the development either as soon as the decision is made to eliminate the proposal or at the expiry of the specified time frame.

South Australia's 20-Year State Infrastructure Strategy

CER gets us ahead of increasing energy demand pressures.

Chris Lehmann & Georgia Holmes
24 October 2023

Master Electricians Australia (MEA) is the trade association representing electrical contractors recognised by industry, government and the community as the electrical industry's leading business partner, knowledge source and advocate. Our website is www.masterelectricians.com.au

Infrastructure SA's 20-Year Plan presents an opportunity for South Australia (SA) to design an effective Consumer Energy Resource (CER) driven plan, electrifying the State to achieve its emissions targets. We emphasise the importance that significant CER infrastructure investment occurs within the first five years of the plan with the remaining 15 years focusing on residual implementation and maintenance.

CER are privately owned, self-generating energy assets which reduce reliance on traditional fossil fuel transmission networks. This technology not only allows for greener energy, but also provides consumers with control over their electricity thereby reducing overall energy prices.

Throughout this submission, MEA discusses the importance of upgrading the network to integrate CER which will support population growth and an increase in Electric Vehicle (EV) charging, both of which will place significant demand pressures on the grid. Networks need to be updated to enable two-way energy transfer between consumer and the grid and to facilitate bi-directional EV charging. We will describe the significant resilience capabilities batteries have and their ability to respond to climate hazards and other network disruptions.

The submission will discuss the benefits of implementing and educating consumers on Time of Use Tariffs (TOU) which will ultimately change consumer behaviour to become 'greener' in response to price signals, enabling the grid to maintain its stability and integrity.

The vital role licenced electrical contractors play within installation and maintenance of private CER will be explained and the importance of ensuring private CER installation and maintenance is left to licenced electrical contractors with a Cert IV qualifications.

Finally, we will advocate that integrated and streamlined secondary school VET curriculum is essential to ensuring a steady pipeline of electrical workers to continue implementing and maintaining private CER assets.

The term CER is more and more being used interchangeably with Distributed Energy Resources (DER). CER has become increasingly common reflecting the reality that there is a large and growing amount of consumer electrical infrastructure that remains chronically underutilised and its capacity to contribute to the electrical grid and price stability is largely ignored. We will be referring to it as CER throughout this submission.

CER

Investments to Unlock SA's Infrastructure

To achieve SA's goals of decreasing greenhouse gas emissions more than 50% below 2005 levels by 2030 and net zero emissions by 2050, the State needs to integrate CER technology within its infrastructure. This will facilitate "the transition to a large scale, cost-competitive renewable energy system [that will achieve] green industrialisation"¹.

¹ 'South Australia's 20-Year State Infrastructure Strategy Discussion Paper' *Infrastructure SA* (2023), 35.

CER are numerous privately owned assets used to naturally generate, store and utilise energy in the most efficient manner distributed throughout the network. Implementing CER relieves the need to invest in as many big generation and transmission projects, whilst utilising the existing infrastructure (existing poles and wires in our cities and towns) that the community has cumulatively paid for over the last century.

Examples of CER include:

- Rooftop solar photovoltaic units (Solar PV)
- Battery storage
- Electric vehicle batteries

Consumers gain the ability to take control of their energy and enables domestic and commercial and industrial (C&I) customers to enter into trading arrangements that time shift loads, using power (soaking) when it is cheapest for flexible loads (hot water, ovens, EV charging, etc) and delivering power back (sourcing) from storage sources (batteries, bidirectional EV's) when energy prices are higher, giving households and businesses the ability to pro-actively reduce their overall power costs. CER external load control should be limited to flexible loads while the traditional network should continue to be utilised for inflexible loads (i.e., fridges, life support, etc).

The dream of changing the energy demand curve (the so called “ducks back”) by taking the excess/cheap energy produced in the middle of the day, and using it during times of peak demand, thereby flattening the demand curve and stabilising electricity prices can be realised in a reasonably short time period if we make some rational, sensible decisions. The technology is here now, the networks and regulations just need to catch up, and the private workforce of electrical businesses across SA stand ready to make it happen.

Time of Use (TOU) Tariffs

MEA believes the best way to “[gain] community acceptance”² towards reducing carbon emissions through CER is implementing flexible demand and generation TOU tariffs. During the middle of the day, the network experiences minimum demand for energy, while CER generated energy is at its greatest. Then, during 4PM-9PM, the network experiences peak demand for energy, while CER energy is no longer being generated.

Implementing wide spread use of ToU tariffs sends price signals to consumers when to store excess energy and when to utilise and/or send excess energy back to the grid. During the minimum demand window, ToU charges would deter consumers from sending excess energy back to the grid, preventing an oversupply of energy on the network. Then, during the peak demand window when energy rates are at their highest, ToU tariffs would provide consumers with rebates, encouraging excess energy to be supplied to the grid thereby assisting supply to meet demand. Consumers can react to ToU tariffs through digital smart meters and Home Energy Management Systems (HEMS).

² (n1), 36

Investment Opportunities

How does this impact the way Infrastructure SA shapes its 20 year-strategy?

While MEA agrees that “significant investment will be required to deliver new transmission and modernised distribution networks”³ we point out that CER provides the unique ability to directly source energy at the same location it will be utilised thereby reducing the need to spend millions building major transmission and distribution networks in newly developed areas.

For pre-existing developed areas, CER can utilise existing transmission structures which the community has cumulatively paid for over the last century, relieving the need to invest in as many new large-scale generation and transmission projects. Investment will be necessary to upgrade distribution and transmission infrastructure to reflect the changing energy supply chain, modifying from a one-way system to a two-way system, allowing consumers to not only receive energy but also transfer energy they have privately generated back to the grid, but this spend should be considerably less. In doing so, this will guarantee the “right energy transmission infrastructure that optimises benefits for households and industry”⁴.

Risks

As more consumers implement and utilise CER, less consumers will be left using the traditional network. This raises concerns regarding equity of costs as they will become significantly higher for the reduced portion of consumers still fully relying on the traditional network. Policies need to be implemented to ensure prices remain reasonable for those remaining on the network. This is a good opportunity to begin phasing consumers into CER and educating them on the costs associated if the change is not made.

Licensed Electrical Contractors

MEA stresses the importance of formally recognising licenced electrical contractors in the electrification process. Infrastructure SA should leave the role of installing private CER technology to licenced electrical contractors with the appropriate certifications. If these functions are removed from the private electrical industry and performed by DNSPs, there will be significant bottlenecks in the rollout of CER and network integration. Utilising the electrical workforce in installing and maintaining private CER creates a competitive market thereby driving down energy prices for consumers.

Opportunities to Improve SA’s Economic Growth

CER will dramatically enhance South Australia’s (SA) economic growth. Not only will it reduce consumer energy bills thereby increasing household disposable income to inject back into the economy but will also increase employment by creating new jobs. Being at the forefront of CER infrastructure is attractive to interstate and international workers, further contributing towards population growth and therefore economic growth in the State.

³(n1), 17

⁴ *Ibid.*

Responding to Impacts of Climate Change.

CER achieves resilience through the following:

- *Resist, absorb, accommodate and recover*: the excess solar energy generated by CER is stored in batteries and able to be used in responding to disruptions. As physically independent assets, they can withstand hazards.
- *Transform*: CER is future focused as it reduces the grid demand pressures realised from significant population and EV growth.
- *Adapt*: SA is committed towards achieving reduced greenhouse gas emissions more than 50% below 2005 levels by 2030 and net zero emissions by 2050. CER technology is designed to facilitate and maintain this transition.

CER plays a vital role in responding to climate change. The ability to store excess power and utilise at a future point in time is enabled through home batteries. Recent testing of Western Power's *Symphony Project* in WA demonstrated the power of batteries to recover from outages through the provision of stored energy⁵. When the Cockbur Power Station fell off the grid, the Harrisdale community battery was quick to respond providing back-up energy, made possible through integration of CER infrastructure.

Overall, CER network integration will provide an "acceptable or tolerable level [risk mitigation] in a cost-effective manner"⁶.

Coordinating infrastructure to support a growing population

"Failure to plan appropriately could result in cities, suburbs and towns expanding in population without access to ... infrastructure, negatively impacting on South Australia's desirability as a location to live and work"⁷. The technology is here now, the infrastructure and policies need to catch up. Immediate action of CER infrastructure and implementation needs to happen to be ahead of population growth as opposed to 'being behind the ball' in accommodating added grid demand pressures.

Providing infrastructure investment to support equitable access and a more inclusive society

MEA recognises there are certain groups which are disadvantaged in the electrification transition namely rental tenants, low-income households and high-rise complex occupants. Not only are these groups at risk of being excluded from participating and directly benefiting in CER, but also risk inequitable network costs as less consumers remain on the traditional network causing the costs for those remaining to significantly increase.

Below we outline how these groups risk being excluded from participating in CER and our recommendations to addressing the problem through "reducing barriers by increasing access and inclusion"⁸:

- *Renters*: without mandating electrification of households, a significant portion of renters will be unable to directly participate in DER as landlords have no personal benefit to invest in such

⁵ 'Project Symphony Industry Briefing' (Webinar, Zoom Link, 10 October 2023).

⁶ (n1), 41

⁷ (n1), 21

⁸ (n1), 29

changes. We recommend providing incentives for landlords to implement DER within their residential properties such as tax rebates or provide deadlines for installing CER into rental properties with a one-off rebate to assist with costs.

- *Low-income households:* for this group the cost of investing in CER will be difficult if not impossible. We recommend efforts are focused on this group to ensure they are financially capable of installing CER and become educated towards its benefits. We recommend introducing rebates for households with income under a certain threshold. We highlight that utilising licenced electrical contractors in the electrification process will create natural market competition thereby keeping installation prices low, particularly beneficial for low-income households.
- *High-rise occupants:* Installing CER technology such as Solar PV and smart meters is more difficult for high-rise buildings. Investment costs of implementing solar PV (and other such CER) is the body corporate's decision. We recommend policies are implemented mandating body corporates to approve CER installations which benefit all residents. Further issues in metering can arise, however, we believe utilisation of pre-existing embedded networks is the solution.

Once policies are designed to better include the above groups, CER can radically enhance social inclusion and equity and reduce overall consumer costs.

Rural and Remote Areas

Focusing on designing DNSP networks to support CER systems (as opposed to making it fit the traditional system), will normalise CER. As population growth occurs, the electricity grid becomes strained as "a growing population increases demand and pressure on infrastructure, meaning new and innovative options are needed"⁹. CER addresses this as households and businesses become more self-sufficient with energy generation thereby reducing demand pressures on the grid. With population growth, residential areas begin to expand towards remote and rural areas. By designing rural and remote networks around CER infrastructure, the future of electrification becomes easier as they become more urbanised.

Electric Vehicles (EVs)

What are the most significant challenges for decarbonising transport and how do we address them?

In light of the Australian Energy Market Operator's (AEMO) anticipation of significant EV uptake in the coming decade¹⁰, there is more need than ever to significantly increase renewable energy production and storage required to service energy needs. It will also mean that existing oversupply of Solar PV capacity during daylight hours will have the ability to be soaked and be dispatched during times of need.

⁹ (n1), 30

¹⁰ (n1), 37

Infrastructure SA needs to encourage that new household and business infrastructure is designed to enable bi-directional EV charging for passenger vehicles, and that existing infrastructure is progressively upgraded. Introducing bi-directional charge enabled vehicles as an option for consumers will provide the benefits of soaking load for periods of daytime oversupply and be a dispatchable reservoir of power during periods of undersupply.

Installation of EV infrastructure in homes and businesses in concert with HEMS for residential buildings and Building Management Systems (BMS) for commercial businesses would increase the network's stability. It addresses the inevitable increased demand on the grid as more vehicles need to connect to charge and addresses public and private charging facility capacity issues.

Licensed and trained electrical contractors should be at the forefront of delivering this capacity.

Skilled Labour

Providing infrastructure support for improved education and skills to deliver a transparent infrastructure pipeline.

Long-Term Workforce: Vocational Education Training (VET) Education

A skilled labour pool is essential to maintain a sustainable long-term decarbonised economy. However, Australia is currently facing a skill-shortage crisis which requires immediate attention. MEA strongly advocate that investing into our future workforce now is the solution, enabling a “well planned timely and co-ordinated approach to infrastructure delivery”¹¹.

Integrating and streamlining VET courses into the secondary school curriculum is essential in exposing and encouraging interaction and advancement in the Science, Technology, Engineering and Match (STEM) trade sector. Perception of entering trades for both females and males will be altered and students will become better equipped when entering STEM trades. It will also allow for better aptitude and competency screening ensuring the right skills are matched with the right trades, thereby improving commencement and retention rates in STEM.

Ensuring secondary schools are designed to facilitate this through not only streamlining the subjects, but also providing facilities to enable practical learning (e.g. designated zones for testing electrical switchboards) stimulates interest and development in STEM trades, securing a future skilled workforce to continue developing and maintaining a “cleaner greener economy”¹². This will ensure SA has the “workforce in the right place with the right skills”¹³.

The *Greater Regional Adelaide Plan* recognises the importance of attracting “a skilled workforce and environment that [is] attractive for talented workers”¹⁴. While MEA agrees, we highlighted in our response to that consultation that investing in educational infrastructure to accommodate a streamlined and integrated VET secondary school curriculum is the solution to ensuring long-term sustainable pool of available skilled workers. This is particularly important as Australia aims towards,

¹¹ (n1), 36

¹² (n1), 34

¹³ *Ibid*

¹⁴ ‘Greater Regional Adelaide Plan’ *State Planning Commission* 2023, 146.

and maintains, net zero emission targets which will rely on electrification technology. A skilled workforce for transitioning and maintaining electrification is crucial and therefore important for Infrastructure SA to invest into its future pool of workers to enable long term actioning of the 20-year plan. The Plan provides significant opportunity for SA to develop educational spaces which encourage and foster development in STEM trades thereby “align[ing] workforce capabilities with future industry needs”¹⁵.

Short-Term Workforce: Inter-State Qualification Recognition

MEA has made several submissions regarding the current disarray of inter-state qualification recognition of licenced electrical workers. For a licenced electrical worker living outside of SA to work in the State, they are required to complete more qualifications under SA regimes despite having equivalent qualifications in their home State. This is a barrier to attracting a skilled workforce. With the goal of a developing “infrastructure [that] supports a de-carbonised, sustainable economy that capitalises on (SA’s) competitive advantages and opportunities”¹⁶ SA needs to position itself to attract licenced electrical contractors to action the 20-year plan efficiently and swiftly. We recommend SA improves national harmonisation by allowing interstate qualified licenced electrical contractors, and their workers, to perform work in SA without having to undergo unnecessary additional qualifications.

¹⁵ (n1), 28

¹⁶ (n1), 34

Conclusion

To achieve SA's goals of decreasing greenhouse gas emissions more than 50% below 2005 levels by 2030 and net zero emissions by 2050, MEA advocate that Infrastructure SA prioritises implementation of CER technology into households and businesses and its integration into the network. Not only does this create green energy, but also provides a resilient framework to climate change and other network disruptions. The technology to achieve CER implementation is here now, it is the policies and public infrastructure integration that needs to catch up.

We are expecting to see significant population growth in the coming 20 years combined with a large uptake in EVs. These two cumulating factors will add demand pressures on the grid unless SA's infrastructure plan is pro-active in addressing the inevitable issues. CER policies combined with supporting network implementation strategies will go a long way to moving SA away from fossil fuel and cater to a growing population through CER technology.

Increasing the prevalence of ToU tariffs and educating consumers how to take advantage of them through Battery Energy Storage Systems and Home Energy Management Systems will foster community acceptance and therefore action towards transitioning to CER clean energy.

The technology to achieve meaningful CER implementation is here now, the policies and public infrastructure integration simply needs to catch up. The traditional one-way network system needs to be modernised to enable a two—way network system where consumers cannot only receive DNSP generated energy but also give back privately generated energy to the grid. This will enhance the stability and integrity of the grid especially as SA's population grows. SA's network infrastructure further needs to enable bi-directional EV charging. This will further reduce grid demand pressures and address private and public charging facility capacity problems.

Prioritisation towards equitable inclusion of rental, low-income households and high-rise complex occupants needs to be addressed with financial incentives to initiate their inclusion in CER technology.

MEA stresses the vital role licenced electrical contractors play with installing and maintaining the private CER infrastructure market. We encourage Infrastructure SA to integrate the private electrical sector into its plan to cohesively dedicate private functions to this industry. Ensuring licenced electrical contractors with appropriate qualifications service the private arena of CER will advance efficient private CER rollout, and create a competitive market driving down consumer prices. It further leaves more capacity to DNSPs to integrate CER with the network and monitoring functions.

A pipe-line of skilled labour is crucial for the implementation and maintenance of electrifying SA homes and businesses. Investment into SA's future pool of labour to facilitate the future needs of CER needs to happen now through a streamlined & integrated VET secondary school curriculum with equal weighting to ATAR subjects. This will foster interest and early training in STEM trades and allow for better aptitude and competency screening to better match the right skills with the right trade overall enhancing SA's trade commencement and attraction rates.

MEA looks forward to seeing the outcome of Infrastructure SA's 20-Year Plan and invite further contact on the future of CER integration within the State.

13th November 2023

Property Council – South’ Australia’s 20 Year State Infrastructure Strategy Submission

The Property Council welcomes the opportunity to provide a response to the 20-Year State Infrastructure Strategy.

The Property Council of Australia is the leading advocate for Australia’s largest industry – property.

Our member organisations are investors, owners, developers, design professionals and managers of real estate across all major asset classes including commercial, offices, residential, industrial, hotels and more.

A cohesive vision and plan for infrastructure across South Australia is critical in ensuring a vibrant and functional economy that supports the community.

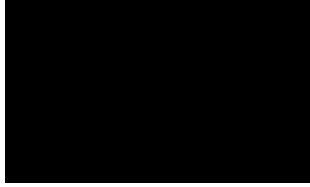
The Property Council recently made a submission responding to the Greater Adelaide Regional Plan Discussion Paper. Our response to the GARP was structured under the four major outcome areas outlined in the discussion paper, namely:

1. A greener, wilder and climate resilient environment.
2. A more equitable and socially cohesive place.
3. A strong economy built on a smarter, cleaner, regenerative future.
4. A greater choice of housing in the right places.

The six key strategic objectives of the SA 20 Year State Infrastructure Strategy are:

1. Enabling infrastructure unlocks higher productivity and economic growth to improve our living standards.
2. Liveable and well-planned places attract skilled people, support a growing population, and create prosperous communities.
3. Accessible and inclusive infrastructure supports social inclusion and economic participation.
4. Infrastructure supports a decarbonised, sustainable economy that capitalises on our competitive advantages and opportunities.
5. Improved resilience to shocks and events helps avoid or respond to disruptions that impact our economy, services and supply chains.
6. A stronger infrastructure industry optimises our infrastructure investment through better planning and prioritisation.

Given GARP's four themes in many respects overlap with the six strategic objectives above, we provide our GARP submission to Infrastructure SA with some additional commentary specific to this discussion paper. We have also mapped our comments to GARP with comments sought by the State Infrastructure Strategy.



Bruce Djite

SA Executive Director, Property Council

1. A greener, wilder and climate resilient environment

South Australia is a leader in renewable energy generation and recognises the importance of decarbonisation for climate resilience, however the 30-year plan should more explicitly recognise the crucial role of the built environment in achieving decarbonisation by 2050 and should prioritise a policy framework to support a financially viable pathway for assisting owners to achieve policy targets for both new and existing buildings.

The Property Council advocates that the Greater Adelaide Regional Plan:

Reduce energy emissions through adaptation of existing buildings and well-designed new buildings.

State Infrastructure Objectives:

- Infrastructure supports a decarbonised, sustainable economy that capitalises on our competitive advantages and opportunities.
- Improved resilience to shocks and events helps avoid or respond to disruptions that impact our economy, services and supply chains.

New buildings must be high-performance and energy efficient. This requires NCC controls, design innovation, ratings schemes and incentives. While a local approach to implementation is important, the Property Council also advocates for a nationally consistent methodology for the measurement of factors such as embodied carbon, lifecycle analysis, thermal performance requirements and energy usage, and applying a cohesive approach across commercial, industrial and residential buildings. In addition, reporting frameworks need to be consistent to support accurate and credible sustainability claims, which in turn incentivises good performance.

Key Points

1. Promote climate resilient buildings.
This strategy will ensure new buildings are energy efficient having financial benefits for future occupants. The implementation of climate resilient buildings should be an incentive-based approach that enables industry to adapt and capitalise on the economic opportunities that can be achieved.
2. Adapt existing buildings.
Most of the building stock we will use in 2050 is in existence today. Existing buildings are therefore critical in addressing emissions reduction targets. Policies should increase support and funding for electrification and thermal retrofitting of existing building stock.
3. Support market transition.
To ensure a positive impact on the economy, the GARP should include policy and funding to promote a market transition to create skills training and employment in sustainable industries such as energy generation, retrofitting, manufacturing and electrification. This will assist trades to reskill away from the standard approach and will also assist professional bodies to implement changes to design standards and reporting.

Climate change resilience through sustainable development – new and existing communities.

State Infrastructure Objectives:

- Improved resilience to shocks and events helps avoid or respond to disruptions that impact our economy, services and supply chains.
- Liveable and well-planned places attract skilled people, support a growing population, and create prosperous communities.
- Accessible and inclusive infrastructure supports social inclusion and economic participation.

As more people than ever are living in urban environments, we need to reimagine the way cities are designed, as well as their critical role in assisting with adaptation to and mitigation of climate impacts. Decisive action is required to avoid the worst projected impacts of climate change. Adelaide and its environs must shift towards the provision of high amenity, high liveability, medium-density metropolitan living, supported by great public transport. This is critical for both infill and greenfield development.

Key Points

1. Sustainable Greenfield Developments.
Release of new greenfield developments should be subject to best practice sustainable planning and should have associated and linked investment in mass transit networks to reduce vehicle travel.

The Property Council supports the establishment of infrastructure and growth compacts between state and local governments to better align housing delivery with economic and social infrastructure. These should deliver new housing at the same time as transport, schools, libraries, shops and public spaces, to support the 'living locally' approach presented in the GARP Discussion Paper.
2. Well designed and located strategic infill can enhance sustainability.
Strategic infill development and renewal should be strongly prioritised to intensify development around existing transit and local community hubs (including suburban and regional locations). These developments should be matched by expenditure on social infrastructure and outdoor space, greening and natural restoration, as higher targets are required to support successful higher density communities. We also call for investment in research to build a strong evidence base that supports the business case for amenity and sustainable infrastructure.

Rethinking transportation to build more climate change resilient cities.

State Infrastructure Objectives:

- Enabling infrastructure unlocks higher productivity and economic growth to improve our living standards.
- Liveable and well-planned places attract skilled people, support a growing population, and create prosperous communities.
- Accessible and inclusive infrastructure supports social inclusion and economic participation.

Transport is the largest contributor to greenhouse gas emissions in the state, responsible for 29% of all emissions. The design of Australian cities fundamentally influences individual behaviour – we are dealing with a legacy that promotes private vehicle use and makes active and mass transit difficult. We need to plan cities for better connectedness and transport options, dramatically shifting investment in our transport infrastructure towards a more sustainable direction, and this needs to work closely with development projects to ensure coordinated outcomes.

Key Points

1. Plan growth to promote the use of sustainable transport modes.
We call for the creation of integrated transport authorities to ensure we improve sustainable mobility within our cities and explore sources of redirected investment capital to fund mass and active transport infrastructure deficits. Transportation strategies should dramatically reduce car dependency.
2. Redirect investment to active transit and sustainable mass transportation networks.
Investment in infrastructure projects including train, tram networks and bus networks should be increased. Infill and new development should where possible include bikeway infrastructure and separated bike lanes.
3. Develop transport strategies that reduce car dependency.
New building projects should also foster active transit, through reduction in minimum requirements for residential car parks and an increase in the minimum provision for alternate transport and associated amenity requirements e.g., secure cycle storage and end of trip facilities. It is recognised that the transition away from car dependency will involve social change as well as physical changes to the environment.

Support 'rewilding' of urban areas

State Infrastructure Objectives:

- Infrastructure supports a decarbonised, sustainable economy that capitalises on our competitive advantages and opportunities.

We rely on urban nature to improve social and environmental conditions and to add amenity value to our cities. Confronting the challenges of global warming and environmental decline requires new forms of infrastructure and new approaches to landscape planning and management in urban and regional settlements.

Key Points

1. Plan green infrastructure and biodiversity into projects.
Planning for growth should include green infrastructure and biodiversity design and planning techniques that cross jurisdictional and site boundaries. It should be considered at an infrastructure systems and planning level, as connection to nature through design and subsequent development is reliant on interweaving with ecosystems, waterways, land and habitat corridors. The GARP could include broad ecosystems management strategies that can be measured, valued and deployed at a scale that transcends private and public land, geographical boundaries, and that can clearly connect with inform and improve development. These considerations should however not impede the rate of development but rather inform better planning and management of land.
2. Provide strategies to promote urban greening.
Development should include stronger targets to reduce development's impact on sites and surroundings, including reducing run off through impermeable impermeable hard surfaces and identify opportunities for greening, tree canopies, verges, streets with integration into buildings, for thermal regulation, shade, and food production. Clarity of regulation and incentives are required to increase greening and habitat replacement within developments, and more cohesive integration into buildings. Opportunities for economic growth through sustainable green infrastructure should be identified, such as small scale innovative urban agricultural development into existing urban fabric.
3. Promote evidence-based frameworks.
Rewilding is hard to achieve when its contribution is not measured within an economic framework. We call for high quality green infrastructure research to promote its value and to improve policy formulation. We advocate for strong industry engagement and funding in green infrastructure strategies for urban design and development. New and infill development proposed in the GARP is a key opportunity to reconnect cities with the natural world and its resources, and to integrate the restoration of ecosystem functions into urban contexts. The opportunity to use local knowledge and Designing for Country should be an integral part of this process.

2. A more equitable and socially cohesive place

Social infrastructure and the associated amenity is closely tied to how we live. Infrastructure shapes our cities, connects people to places, affects our health and wellbeing, and influences our future prosperity.

To provide an equitable and socially cohesive place infrastructure needs to be carefully planned and ready to be delivered as the demand arises.

The Government, State Planning Commission and infrastructure providers must demonstrate strategic leadership in design and planning, and establishing delivery frameworks, for the infrastructure that underpins our community.

Infrastructure therefore is not just the realm of engineers, designers and planners but requires an evidence-based approach that involves a range of disciplines to maximise the benefit of infrastructure investments.

Our members are seeking an approach to infrastructure planning that creates confidence, is transparent, equitable, evidence-based, and predictable. The current ad hoc nature of infrastructure negotiations is unsustainable and creates costly delays to all parties. The infrastructure liability associated with projects in a time of escalating project costs, has added significant risk to projects at all scales, including small infill sites or significant urban growth projects. It is not only creating costly delays but is a key contributor to “the housing crises”.

The GARP should encourage State and Local Government to prioritise infrastructure planning and understanding the capacity of existing services both on, above, below and surrounding proposed sites. An understanding of baseline conditions to better facilitate public realm and amenity requirements needs focus. For example, the capacity of stormwater systems and local street networks is often not well understood and is important to the growth of minor infill and strategic infill sites. A greater emphasis on standardisation of infrastructure requirements would assist in enabling infrastructure to be costed into projects upfront and before significant commitments have been made.

The Planning, Development and Infrastructure Act 2016 identifies that a regional plan must include a long-term vision for the region, including ‘provisions about the integration of land use, transport infrastructure and the public realm’. Thus, infrastructure and services will need to be front of mind in this new plan.

The Property Council advocates that the Greater Adelaide Regional Plan:

Provides a clear connection between growth precincts and infrastructure planning.

State Infrastructure Objectives:

- Enabling infrastructure unlocks higher productivity and economic growth to improve our living standards.
- Accessible and inclusive infrastructure supports social inclusion and economic participation.
- Liveable and well-planned places attract skilled people, support a growing population, and create prosperous communities.
- A stronger infrastructure industry optimises our infrastructure investment through better planning and prioritisation.

The GARP is a plan to manage growth and change. It will identify precincts where our growing population will be accommodated and where employment opportunities will be created. In areas for growth the required trunk infrastructure must be understood, including utility infrastructure. At the local level, infill precincts will need to be evaluated to determine the potential need for upgrades to local infrastructure. Councils should be proactive and investigate these issues for inclusion in the plan.

Key Points

1. Evidence-based planning – identify what infrastructure is needed and when.
The GARP must identify the high-level infrastructure requirements for growth areas and the trigger points for infrastructure provision. This provides certainty around the economic cost and investment required for growth precincts. This will require an evidence-based approach to understand existing capacities and requirements.

Includes clear guiding principles to inform funding contributions and delivery of infrastructure.

State Infrastructure Objectives:

- Enabling infrastructure unlocks higher productivity and economic growth to improve our living standards.
- A stronger infrastructure industry optimises our infrastructure investment through better planning and prioritisation.

While the private sector has a role in contributing to infrastructure costs, greater certainty about what needs to be contributed and when, is crucial in the financial viability and risk profile of projects. Having clear principles to guide infrastructure funding would provide greater confidence and reduce case-by-case negotiations causing costly project delays.

The required social and physical infrastructure requirements for growth precincts should be identified upfront and the infrastructure delivery mechanism identified. Figure 5 in the Discussion Paper identifies an infrastructure cost schematic. While an individual development can trigger new infrastructure at the state level (e.g., an arterial road), the beneficiary of the infrastructure is far reaching.

Key Points

1. Predictability of costs and requirements.
The development industry benefits from logical and predictable requirements that can be costed into projects upfront. Understanding contribution expectations at the feasibility stage of projects is critical.
2. Fair and equitable infrastructure models.
Contributions should be fair and equitable and reflect the range of beneficiaries of the infrastructure. Proponents should not be required to fund legacy issues or make the full contribution where they are the last project to 'tip it over'. Currently, there is no oversight of infrastructure charges imposed by Councils, which can vary significantly and create significant uncertainty.
3. Strong governance to support infrastructure planning and delivery.
The alignment of State and Local Governments and other infrastructure providers is critical to ensure infrastructure is delivered for growth precincts. This includes service providers such as SA Water, SAPN and DIT whose alignment is required to provide support for growth priorities.

Identify social infrastructure requirements and land to accommodate it through master planning processes.

State Infrastructure Objectives:

- Accessible and inclusive infrastructure supports social inclusion and economic participation.
- A stronger infrastructure industry optimises our infrastructure investment through better planning and prioritisation.

Key points

1. **Locational challenges for social infrastructure**
GARP should assist in breaking down perceptions about where social infrastructure should be located, particularly related to affordable and social housing and community mental health. It should demonstrate an understanding of place and the amenity that is required to service growing and changing communities. Development and change of uses should have simplified planning processes with zones that encourage integrated social infrastructure development and allow movement between land uses i.e., aged care to mental health, hotel to hospital etc.). Early stakeholder engagement in strategic and infrastructure planning for the provision of the inclusion of this amenity would serve to drive efficiencies and project understanding from the outset.
2. **Land availability for social infrastructure**
Undertaking social infrastructure assessments assist in ensuring needs can be addressed through the development of master planned communities. Currently, not for profit organisations and government agencies compete for land in well located areas to provide the required services. An examination of improved approaches to resolving this issue could be an action in the GARP.
3. **Sustainable planning with a long-term view**
Early acknowledgement and alignment of sustainability principles into the planning, design and delivery of infrastructure projects will ensure integration into well designed urban precincts. Additionally, early planning can support a range of more sustainable transport options as well as a more adaptive infrastructure that can respond to changing community preferences and needs.

3. A Strong Economy Built on a Smarter, Cleaner, Regenerative Future

An economy's strength is measured by its performance across three fundamental factors: namely productivity, population, and participation.

A highly productive economy will be one that sustainably maximises the throughput generated by its most scarce and valuable resources. These resources are land, capital, and people. Land is inherently scarce, and so policy governing its intelligent and productive use merits particular attention to ensuring the State's economic growth over the next 30 years.

As previously noted, South Australia was recently rated as having the most competitive business tax and planning regime in the nation according to the Business Council of Australia. The efficiency of the planning system and sophistication of the policy that governs its operation are integral to the State's investment attractiveness and growth prospects.

The GARP can play an active role in shaping how land use influences future investment, talent, employment, trade, infrastructure, health, education, energy, and sustainability outcomes to name but a few.

The discussion paper notes digitisation, decentralisation, automation and advanced manufacturing, workforce, skills and migration and changing mobility systems as key trends and drivers.

Members of the Property Council in South Australia propose that the GARP should optimise land use, balancing these factors and a number of other considerations.

A modern sophisticated economy necessitates well situated land that can cater for the business requirements of distribution centres, manufacturing, industrial, logistics and warehousing facilities.

It is vital that the GARP incorporates land use planning that enables a diverse economy characterised by multiple resilient and future proofed industries.

The Property Council advocates that the Greater Adelaide Regional Plan:

Is flexible and provides choice, allowing for a diversity of commercial uses that can enable Greater Adelaide to attract and maintain its skills base.

State Infrastructure Objectives:

- Enabling infrastructure unlocks higher productivity and economic growth to improve our living standards.
- Liveable and well-planned places attract skilled people, support a growing population, and create prosperous communities.
- Accessible and inclusive infrastructure supports social inclusion and economic participation.
- A stronger infrastructure industry optimises our infrastructure investment through better planning and prioritisation.

A smart economy requires smart people.

The 'brain drain' phenomenon in South Australia is well known.

The South Australian Government has embarked upon a policy trajectory that seeks to reverse this trend by increasing the capacity of the State's economy to engage in increasingly complex economic activities and grow the number of local high paying jobs to retain talent.

This is underpinned by the government's investment in education and engagement with transformative endeavours such as the university merger, AUKUS and the hydrogen industry.

Key points:

1. Create a clear vision.
A vision for Greater Adelaide that accounts for how land will be intelligently utilised to attract and retain highly productive, highly skilled people to contribute to our economy is worthy of deep consideration.
2. Attract workers through quality working environments.
Complex industries will increasingly seek to attract talented cohorts of people by offering high-amenity employment space. This is true not only in the office market but in the kinds of industries that occupy land outside the CBD.

As traditional blue collar working environments integrate technologies that improve productivity and require a more sophisticated and diverse workforce to compete, employees will increasingly demand higher degrees of amenity with infrastructure and services that entice them to participate in these jobs.
3. Provide strategic employment land that's connected to a diverse housing offering.
Land designated for strategic employment needs to be situated in relative proximity or with ample, frequent, and rapid connectivity to a diversity of housing options (including high and medium density, build-to-rent, student accommodation and retirement living) that can accommodate a critical mass of population providing the human capital required to drive a range of industries.
4. Establish mixed use employment precincts.
The needs of employees regarding services and amenities are important. Mixed use precincts that improve employee experience are attractive to companies who want to compete to acquire highly skilled people and retain them.

Preserve scarce land such as 'last mile space' and land connected to transport infrastructure.

State Infrastructure Objectives:

- Enabling infrastructure unlocks higher productivity and economic growth to improve our living standards.
- Improved resilience to shocks and events helps avoid or respond to disruptions that impact our economy, services and supply chains.
- Infrastructure supports a decarbonised, sustainable economy that capitalises on our competitive advantages and opportunities.
- A stronger infrastructure industry optimises our infrastructure investment through better planning and prioritisation.

The pandemic reinforced the essential nature of "last mile space".

Last mile space refers to storage and warehousing facilities in or near CBD's and town centres.

With consumer behaviour during Covid necessitating a rapid expansion in online shopping, traditional supply chains across Australia came under immense pressure. Storage facilities close to large urban populations became increasingly vital to ensure a continuity of supply.

Key Points

1. Protect land for last mile logistics.
Members who act in the industrial market report that there is a trend by more and more companies towards operating sites that are more numerous but smaller in size. These companies seek a competitive advantage by being able to replenish stock more rapidly by holding inventory closer to the point of sale ensuring supply chain resilience and maintaining customer loyalty. Due to the current housing crisis, high quality urban infill sites, are naturally of important strategic value. However, last mile space that is well situated is difficult to replace once it is converted into residential thus making its preservation highly important. Not only does this have economic benefits, but it has positive sustainability outcomes with reduced heavy vehicle movements in urban centres.
2. Identify and protect land close to Airports and key freight infrastructure.
Good quality land that is well connected to key infrastructure such as the airport is highly valued. This provides companies with domestic and international air freight requirements significantly lower transportation costs.

It is worth noting that Property Councils 2022 election platform outlined that the UK Airport Commission found that a 10 per cent increase in seat capacity (proxy for connectivity) increased short-term GDP by 1 per cent., product exports by 3.3 per cent and foreign direct investment inflows by 4.7 per cent.

Drive policy that enables robust forward planning and delivery mechanisms for provision of strategic employment lands.

State Infrastructure Objectives:

- Enabling infrastructure unlocks higher productivity and economic growth to improve our living standards.
- Improved resilience to shocks and events helps avoid or respond to disruptions that impact our economy, services and supply chains.
- A stronger infrastructure industry optimises our infrastructure investment through better planning and prioritisation.

Long-term planning for economic growth is critical, and understanding market trends and demand for land must be a clear focus of the GARP.

Key Points

1. Orderly and transparent process for the delivery of development ready land
The State Government has recently appointed a Housing Infrastructure Planning and Development Unit to work across government agencies, council, and utilities to ensure the right infrastructure and services is in place to support the housing.

The Property Council would assert that to accelerate and boost employment a similar, properly resourced unit should be established with regards to employment land. This unit should have powers to monitor land use, investigate requirements and coordinate government agency inputs to ensure sites are brought to a state of development readiness.
2. Curate market led industrial and employment precinct requirements.
Understanding the land requirements of the industries the government desires to attract is critical. An intimate knowledge of the requirements and priorities of business in respect of issues such as proximity to transport infrastructure, energy use, customers and suppliers is important to building a high-resolution image of the land requirements desirable for Greater Adelaide's future economy.

It is critical to ensure industry is engaged to understand the dynamic nature of employment precinct requirements and to ensure decision-making is evidence based. A granular evidence and data driven solution to understand land availability for employment space is encouraged so that Government and the private sector can collaborate.
3. Provide flexibility to enable new businesses to thrive and diversify over time.
Employment land demand is less predictable than residential land supply. The Property Council would counsel against prescriptive policy that puts the brakes on innovation and ensure that continuous change in local and global conditions is considered as part of a resilient forward focused planning system.

4. A Greater Choice of Housing in the Right Places

With projections forecasting Greater Adelaide's population growing by up to 670,000 people over the next 30 years, decisions informing where and how we should grow our housing requires bold decision-making geared towards strengthening the liveability, sustainability, and economic prosperity of the region. Growing diversity in housing stock - with a holistic vision informing its placement - will be integral to enhancing the State's growth and liveability over the next 30 years.

In 2023, Adelaide surged up The Economist's Global Liveability Index, catapulting from the 30th position to the 12th, making it one of the world's most desirable cities to live in. To maintain and further improve this ranking, it is essential that South Australia continues to be an affordable and desirable place to live and work in Australia.

Members of the Property Council in South Australia advocate for GARP initiatives that will strengthen Adelaide's liveability brand by presenting a bold and comprehensive vision for the state's growth and positioning both locally and globally. This plan should encompass the promotion of intelligent diversity in market-lead housing typologies, offering choices for residents at every stage of life. Additionally, it should provide a holistic vision for optimizing land use, striking a balance between creating world-leading living environments and fostering opportunities for economic growth that support them.

The Property Council advocates that the Greater Adelaide Regional Plan:

Promotes growth of the City Centre

State Infrastructure Objectives:

- Liveable and well-planned places attract skilled people, support a growing population, and create prosperous communities.
- Accessible and inclusive infrastructure supports social inclusion and economic participation.
- Infrastructure supports a decarbonised, sustainable economy that capitalises on our competitive advantages and opportunities.

The opportunity remains to fulfill Adelaide's internationally acclaimed urban plan, strengthening the city's growth potential and reinforcing its reputation as a liveable, dynamic, green, walkable and vibrant urban environment through an increased focus on infill development. To invigorate Adelaide's urban core and enhance its vibrancy, it is imperative to prioritize and incentivize higher density living within and around the city centre. This approach aligns with the spirit of our renowned city plan, consolidating critical mass in our vibrant "Festival State" core.

A true city in a park - Adelaide stands as the world's sole city enveloped by Park Lands. It is a place that can be easily experienced and explored by virtue of its grid-like plan of wide streets, terraces, and public squares. Internationally recognised as one of the most important influences on the Garden City Planning movement, Adelaide's untapped potential continues to offer an ideal canvas for shaping the city of tomorrow through increased population and density which the city can support. The abundance of existing social infrastructure and amenities can pave the way for a city that combines a strong sense of place and sustainable urban development, with well-being at its core.

As indicated in the plan, the 'Adelaide' sub-region has contributed only 10% (13,131) of the greater region's population growth distribution from 2011 to 2021. To bolster this figure, the plan should boldly advocate for a more significant portion of our state's growth to occur in Adelaide's city centre, where distinctive liveability characteristics have already been established. Achieving this requires a balanced approach that identifies future residential growth areas while placing equal emphasis on urban expansion and strategic higher-density urban infill.

Addressing the planning challenges that come with this endeavour, such as airport building height restrictions, adaptive reuse of heritage buildings, and activating ground floor spaces, is crucial to unlock the city centre's growth potential. Whether it's for student housing, essential workers' accommodation, apartment living, heritage building preservation, or office space conversion, city developments must be both attractive and affordable, catering to a diverse range of residents. These strategies are key to unlocking Adelaide's full potential and securing its place as a world-class, liveable city.

Key Points

1. Enhance Adelaide's brand through a clear vision.
Promoting growth in the city will bolster Adelaide's brand and support local and global initiatives, emphasizing liveability and our unique attributes, such as our vibrant festival scene in the continued effort to reverse Adelaide 'brain drain' and reach the upper limits of our population growth targets.
2. Social equity.
Promote higher density living in the city areas grants more people access to established world-class amenities and social infrastructure such as our Park Lands, promoting social equity.
3. Creating diverse living environments.
Encouraging higher density living around the core will lead to a more diverse living environment with critical mass, fostering vibrancy and community engagement.
4. Leveraging existing infrastructure.
Adelaide's core is surrounded by ample infrastructure and amenities, including the Adelaide Park Lands. Leveraging these resources can lead to more sustainable and vibrant urban development.

Supports infill and missing middle housing typologies within inner and middle suburbs

State Infrastructure Objectives:

- Enabling infrastructure unlocks higher productivity and economic growth to improve our living standards.
- Liveable and well-planned places attract skilled people, support a growing population, and create prosperous communities.

The Property Council supports balancing the need for infill growth, with new developments on the fringe. To facilitate sustainable growth while ensuring housing availability and supply, we support the promotion of 'missing middle' housing typologies as a suitable form of infill development.

Given that 75% of homes in the region are detached dwellings, and with a 78% increase in single households since 1991, the strategy to promote missing middle housing typologies aligns with changing demographics and housing requirements outlined in the plan. At its core, this approach advocates for housing options that serve as a transitional bridge between low-density and high-density living. Missing middle housing comprises house-scale buildings with multiple units that are compatible in scale and form with detached single-family homes, all within a walkable neighbourhood. This approach not only preserves the appeal of mixed housing typologies but also ensures greater accessibility for all.

We understand that ad hoc infill development has created challenges within existing areas. However, care needs to be taken when reducing this form of housing supply without simultaneously releasing sufficient alternative housing options within the inner and middle ring suburbs of Adelaide. The current 'housing crises' is illustrative of our land supply not being ready to take up demand.

Key Points

1. Support sustainable growth.
It is crucial to avoid repeating past mistakes of continuous low-density growth, which has adverse environmental impacts. Embracing a sustainable approach to growth is paramount.
2. Understand our changing demographics.
The demographics and housing needs of our communities are evolving. To ensure efficiency and occupancy rates, we need a responsive housing strategy that fosters vibrant and diverse living communities while addressing affordability challenges.
3. Unlocking land value to stimulate investment.
Encouraging 'missing middle' housing types can unlock greater land values, offering private industry incentives to invest in and deliver these diverse housing options. Supporting a market lead supply.
4. Housing affordability as a mutual responsibility.
With compounding concerns around the cost of living, housing affordability serves as a crucial consideration in urban planning and policymaking. It ensures that housing is accessible and affordable for a broad range of income levels within our region. It is a mutual responsibility with the public and private sector working in collaboration. Care needs to be taken to ensure affordable housing policies are enabling rather than putting further constraints on land that is already challenging to bring to market.
5. Providing housing choice.
Choice is a key enabler in providing people with the right form of housing throughout different life stages. The 'missing middle' concept is vital because it enables the introduction of new housing types into well-established, well-served neighbourhood, fostering greater diversity in sought-after locations and offering housing options at a more affordable price point compared to the predominantly available housing stock.

Supports a balance of housing across all subregions and markets.

State Infrastructure Objectives:

- Liveable and well-planned places attract skilled people, support a growing population, and create prosperous communities.
- Accessible and inclusive infrastructure supports social inclusion and economic participation.
- A stronger infrastructure industry optimises our infrastructure investment through better planning and prioritisation.

Our members include a range of development interests, from infill development to large scale development on the fringe. Recognizing this diversity, The Property Council places great importance on ensuring a well-balanced land supply throughout Greater Adelaide, thereby facilitating a myriad of lifestyle options for our community.

We advocate for a future urban form that incorporates a variety of development types, encompassing small-scale infill, strategic infill, expansion within the CBD around vital transit hubs, and greenfield growth on the periphery of existing urban areas.

Key points

1. Sub-regional growth targets that support housing diversity.
Growth targets should be based on sub-regions, rather than the whole GARP area and include the full range of development typologies to provide residents with greater choice.
2. Flexibility of land supply planning.
GARP should provide flexibility for development types to be responsive and adaptive to changes in market-driven demands.

Promote strategic infill development and renewal around existing mass transit and local community hubs.

State Infrastructure Objectives:

- Liveable and well-planned places attract skilled people, support a growing population, and create prosperous communities.
- Accessible and inclusive infrastructure supports social inclusion and economic participation.

Unlocking strategic infill sites will play a crucial role in ensuring that new developments align with affordability and sustainability objectives, all while addressing the evolving needs of our expanding community.

As identified within the plan, significant strategic infill sites at Lightsview, St Clair, West Lakes, Dock One and Glenside have integrated successfully with existing neighbourhoods. These master planned communities provide high amenity for residents in well located areas.

The Property Council endorses the necessity for additional sites like these throughout Adelaide.

Key Points

1. Promote strategic infill growth.

Our members support strategic infill sites around the Adelaide core as an ideal scenario for implementing the 'missing middle' approach through mixed use typologies. These sites can be strategically developed to enhance the city's liveability. However, care needs to be taken in creating further barriers to such development e.g., increased parking rates, lowered building heights due to community resistance, site contamination requirements and other policy barriers.

5. Supplementary comments on the 20 Year State Infrastructure Strategy Discussion Paper from members

Objective 2: Liveable and well-planned places attract skilled people, support a growing population and create prosperous communities

“Liveable and well-planned places” notes the importance of integrating land use and infrastructure planning. Additionally, the GARP Discussion Paper also relies heavily on greenfield land within the Outer North to address future population growth, particularly in the short-to-medium term (0-15 years). This notwithstanding, infrastructure challenges in the Outer North are already becoming evident, which is reflective of a disparity between the State Government’s housing delivery objectives and State Government’s infrastructure delivery objectives.

New housing cannot be delivered (or at least delivered in a timely manner) without a clear and transparent infrastructure strategy. That is, housing does not exist without infrastructure, yet uncertainty exists with respect to the provision and adequacy of infrastructure to achieve housing supply targets, as stated in the GARP. The SA 20 Year State Infrastructure Strategy should inform the GARP, including the ability to deliver infrastructure and service housing in areas where housing is contemplated. Without this clarification, there is a clear deficiency with both strategies.

The Discussion Paper highlights the importance and need for the State Infrastructure Strategy (SIS) to be coordinated and aligned with the Greater Adelaide Regional Plan (GARP). Our members strongly support this approach, as housing growth targets identified in the GARP Discussion Paper are reliant upon the coordinated delivery of trunk and social infrastructure, *in the right locations and at the right time*.

While the private sector has a role to play in funding infrastructure delivery, greater certainty about what needs to be contributed and when, is crucial in the financial viability and risk profile of projects. Having clear principles to guide infrastructure funding would provide greater confidence and reduce case-by-case negotiations causing costly project delays.

Social and physical infrastructure needed to support urban growth should be identified upfront and the infrastructure delivery mechanism identified. This begins with strategic alignment between the State Infrastructure Strategy and the GARP. That is, our members believe the SIS should acknowledge and address both the trunk and social infrastructure required to achieve the housing supply targets set out within the GARP, including by region and sub-region (noting that the majority of greenfield growth is expected to occur in the Outer-North).

Objective 6: A stronger infrastructure industry optimizes our infrastructure investment through better planning and prioritization

The Discussion Paper acknowledges existing infrastructure delivery challenges “*due to supply chain constraints, labour and skills shortages, and the significant pipeline of work*”.

Our members strongly support the view expressed within the Discussion Paper that the planning and sequencing of infrastructure investment to support growth is pivotal to ensuring infrastructure delivery addresses the required social, environmental, and economic needs of the community.

Our members also strongly concur with the comment made within the Discussion Paper that at present, South Australia is lacking 'a whole-of-government approach' to infrastructure delivery. Our members express concern that this apparent lack of coordination between the various arms of State Government has the potential to significantly undermine State Government's housing delivery targets, as well as the timely delivery of social infrastructure to create livable and socially inclusive communities.

The Discussion Paper refers to the DIT's annual forward workplan for the delivery of infrastructure, as well as other infrastructure delivery schemes (including SA Water). Our members stress the importance for strategic alignment between these plans and overarching objectives set out within SIS and GARP. *That is, government work plans for the delivery of infrastructure should be informed by the strategic objectives set out within SIS and GARP.*

Our members also believe the SIS should consider and address the essential role of the private sector in the delivery of trunk and social infrastructure to support greenfield housing development. *Objective 6: A stronger infrastructure industry* notes the need for an effective governance framework to address existing infrastructure investment and delivery challenges.

While it may well be outside the scope of the SIS, there is a fundamental challenge to the existing and future infrastructure in this State derived from the disparate governance regimes particularly for the planning, funding and delivery of infrastructure. Until that essential governance gap is filled, we will continue to face significant difficulties in those three realms.

The discussion falls short of acknowledging the challenges encountered by our members in delivering such infrastructure for new housing developments.

This disconnect - between infrastructure planning and delivery and the development objectives (particularly housing delivery) as detailed particularly within the current 30 Year Plan, and the future Greater Adelaide Regional Plan (GARP) - has the potential to (and apparently is) being experienced during the Code Amendment process with developers potentially exposed to major delays in the finalisation of Code Amendments whilst infrastructure matters are resolved.

In the case of infrastructure delivery at the D.A level, members of the Property Council have an interest in ensuring that Infrastructure Schemes are nimble and adaptive to allow for the efficient delivery of infrastructure in a manner that is equitable all stakeholders.

Our members call for the following:

1. Predictability of costs and requirements.
The development industry benefits from logical and predictable requirements that can be costed into projects upfront. Understanding contribution expectations at the feasibility stage of projects is critical.
2. Fair and equitable infrastructure models.
Contributions should be fair and equitable and reflect the range of beneficiaries of the infrastructure. Proponents should not be required to fund legacy issues or make the full contribution where they are the last project to 'tip it over'. Currently, there is no oversight of

infrastructure charges imposed by Councils, which can vary significantly and create significant uncertainty.

3. Strong governance to support infrastructure planning and delivery.
The alignment of State and Local Governments and other infrastructure providers is critical to ensure infrastructure is delivered for growth precincts. This includes service providers such as SA Water, SAPN and DIT whose alignment is required to provide support for growth priorities.



**SOUTH AUSTRALIAN WINE INDUSTRY
ASSOCIATION INCORPORATED**

Submission to InfrastructureSA in response to South Australia's 20-Year State Infrastructure Strategy Discussion Paper

SUBMISSION OF:	SOUTH AUSTRALIAN WINE INDUSTRY ASSOCIATION INCORPORATED
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South Australian Wine Industry Association

The South Australian Wine Industry Association (SAWIA) is an employer and industry association representing the interests of wine grape growers and wine producers throughout the state of South Australia. SAWIA (as it is known today) was established in 1840 as the Society for the Introduction of Vines.

SAWIA membership represents approximately 96% of the grapes crushed in South Australia and about 36% of the land under viticulture. Each major wine region within South Australia is represented on the board governing our activities.

SAWIA has a strong track record as an industry leader and innovator in many areas and proactively represents members and the greater wine industry to government and related agencies on a wide variety of matters.

About the South Australian wine industry

The South Australian wine industry is worth about \$2.25 billion to the state's economy¹. South Australia has 18 distinctly named wine regions and is responsible for producing about 60% of Australia's wine production² (currently around 500 million litres of wine) and 80% of Australia's premium wine

South Australia has approximately 75,500 hectares under wine grapes³, representing about 52% of Australia's vineyards and comprise of 77% red and 23% white wine grape varieties. The total wine grape crush in 2023 in South Australia was 661,984 tonnes, 55% of Australia's crush. For South Australia, this was 14% below the 10-year average.

In the twelve months to the end of September 2023, South Australia exported 358 million litres for a value of \$1.22 billion (about 70% of Australia's total value). South Australia's major export markets by value are currently Hong Kong, Singapore, UK, USA, Malaysia, New Zealand and Canada. Of international exports with a label claim from the regions of South Australia, about 70% are in bottled format, comprising over 90% of the value. Wine is currently South Australia's fourth largest single export sector and exported to about 100 countries.

In South Australia there are approximately 1,250 licensed⁴ wine producers (including about 600 processing facilities, 340 cellar doors⁵) and 3,246 registered vineyard owners⁶, who together directly employ around 8,990 persons⁷ and indirectly support another 81,900 jobs⁸.

¹ Primary Industries Scorecard 2021-22.

² Wine Australia, Production, Sales and Inventory Report 2021-22

³ SA Winegrape Crush Survey 2023, Wine Australia

⁴ Consumer and Business Services SA

⁵ The Australian and New Zealand Wine Industry Directory

⁶ SA Winegrape Crush Survey 2023, Wine Australia

⁷ Census 2021, Australian Bureau of Statistics

⁸ Derived from Economic Contribution of the Australian Wine Sector 2019, AgEconPlus. Wine Australia [website](#)

Basis of submission

SAWIA welcomes the opportunity to provide the following submission to InfrastructureSA's consultation on the second iteration of South Australia's 20-Year State Infrastructure Strategy (the Strategy).

SAWIA made a submission in 2019 as part of the preparation of the first iteration of the Strategy.

With a large number of South Australia's wine producers located in regional and rural areas, an effective regional road transport system with links to arterial roads and the National Land Transport Network (national highways) is instrumental to support South Australian wine producers taking their wines to the global stage.

Reliable internet and mobile phone communications in regional areas is also important to enable businesses and tourists to access services and information that we all take for granted.

SAWIA advocates for infrastructure planning to focus on the following key areas:

- Freight and supply networks – to facilitate movement of grapes, supplies and finished product to sustain and grow the industry. This includes interlinkages with road transport, rail, maritime and air cargo.
- Water – affordable access of suitable quantity and quality water where it is needed.
- Energy - reliable access to affordable energy and supporting the transition to a decarbonised energy system.
- Digital connectivity – reliable mobile and internet connectivity to support jobs and tourism in regional areas.
- Coordinated planning affordable housing – to support employment in regional areas, whilst protecting primary production land.
- Cultural and tourism - supporting the growth of tourism and domestic and international visitors to SA's wine regions.

SAWIA advocates for infrastructure planning that prioritises resilience by assessing climate change-related risks, especially in the context of South Australia's increasingly hotter and drier climate. This approach may necessitate a wider commitment to enhancing adaptive planning skills across the entire economy to better prepare for more extreme events.

Freight and supply networks

The South Australian wine industry is a predominately regionally based industry, with wine producers located in 18 wine regions across the State. This often means there is an essential need to transport finished products a great distance from the winery to the port or airport. Hence, interlinkages with road transport, rail transport, maritime transport and air cargo network are essential both within South Australia and nationally.

The wine industry heavily relies on the heavy vehicle sector to transport grapes, finished products (bottled or bulk wine) and essential supplies across Australian public roads.

While most wine grapes are crushed in South Australia, there are instances where grapes are transported to wineries in other states, including Victoria and New South Wales. Conversely, grapes picked in Victoria and New South Wales are sometimes transported to South Australia for crushing.

In relation to container freight, according to the ACCC, over the last decade only 10-12% of containers arriving or leaving Australia are transported by rail, with the majority transported by trucks. If this split continues, this will continue to result in increased road congestion⁹. Hence, there is a need for improving rail capacity nationally.

Wine tourism plays a critical role in driving visitors to South Australian regions, originating from intra-state, interstate and international locations. However, to attract tourists into our regions, we need convenient, safe and reliable transport infrastructure.

The condition of our roads, particularly country roads is an impediment with 74% of the roads in South Australia are rated at one or two stars out of five, way below the national target of 80% of all roads rated above three stars¹⁰. In addition, 75% of state-owned roads in South Australia are “life expired”, leading to “higher vehicle operating costs, travel times, safety risks and potential resilience issues for traffic.”¹¹

According to the South Australian Productivity Commission, the South Australian economy has been underperforming over the last three decades.¹² The state of our roads may be one of many factors contributing to this underperformance.

The Strategy released in 2020 emphasises the need for new, improved and maintained infrastructure. This includes sealing specific roads, widening, shoulder sealing, adding passing lanes on regional roads and enhancing parking and pull-out areas¹³.

While InfrastructureSA’s annual Capital Intentions Statement identifies major projects, there is a need to prioritise smaller projects that benefit regional South Australia. In SAWIA’s view, the upgrades of our road network in regional South Australia must be a priority in the Strategy.

The South Australian wine industry, primarily regionally based, often involves transporting finished products over significant distances to ports or airports. Consequently, a well-connected network of road transport, rail transport, maritime transport and air cargo facilities is essential, both within South Australia and nationally.

The Federal Government has identified road and rail corridors of national importance, known as the National Land Transport Network. In South Australia, this includes critical routes such as the Sturt Highway, Dukes Highway, Riddoch Highway and Princess Highway.

The wine industry considers the following routes as a particular priority for upgrades:

- Riddoch Highway from Keith to Padthaway (major freight route with B-triples carting bulk wine)

⁹ Australian Consumer and Competition Commission 2021, Container stevedoring monitoring report, 2020-2021

¹⁰ Infrastructure SA 2020, 20-Year State Infrastructure Strategy, May 2020, p, 100.

¹¹ Infrastructure Australia 2021, South Australian road network maintenance, Maintenance backlog and preventative maintenance, <https://www.infrastructureaustralia.gov.au/map/south-australian-road-network-maintenance>

¹² South Australian Productivity Commission 2023, Final Report: Turning Research into Economic Competitiveness for South Australia.

¹³ Infrastructure SA 2020, 20-Year State Infrastructure Strategy, May 2020, p, 100.

- Duplication of the Dukes Highway
- Sturt Highway and Truro bypass

Water supply

Water is widely regarded as the wine sector's most vital resource and ensuring the availability, accessibility and affordability of water is crucial for the industry's long-term viability. This encompasses both quantity and quality considerations, with water quality being paramount for vineyard and winery use, including considerations such as salinity levels.

Across the wine regions, availability, accessibility and price of water varies greatly. Some surface and groundwater catchments, upon which the wine industry depends, face challenges such as declining quality, full- or over-allocation or high costs. Moreover, these resources are increasingly threatened by the impacts of climate change and competing activities, including forestry and mineral and gas extraction (which can potentially cause contamination).

To foster the wine industry's future stability, it is imperative that businesses are given assurance regarding their ongoing access to water resources. This assurance should be achieved through timely and efficient water allocation processes and effective storage solutions to address the industry's fluctuating demand-supply balance.

In light of these challenges, we believe that infrastructure planning can play a pivotal role to ensure both reliable and affordable provision of water resources.

For example, the industry recognises that it must continue exploring alternative sources of water, such as reclaimed stormwater and treated wastewater, but realising this potential requires the development of adequate water storage capacity and transport infrastructure. In particular, it is important that the infrastructure plan considers support for infrastructure to deliver alternative water for Barossa and Clare Valley wine regions.

Energy

Ensuring the resilience of energy infrastructure is paramount to maintain a reliable supply of electricity, especially in the face of the anticipated rise in extreme climatic events resulting from climate change. South Australia has already encountered the repercussions of a complete 'system black' caused by extreme weather events, underscoring the urgency of future infrastructure planning to mitigate the risk of such recurrences.

Most wineries in South Australia are located in the regions, often near the extremities of the distribution network and many still suffer from intermittent black-outs and, sometimes more concerningly, brown-outs that can cause damage to processing equipment.

Recognising the financial implications of electricity costs, which can be typically around 15% of total operating costs, many wine businesses have taken proactive steps to tackle this. A growing number of wineries are investing in their independent energy generation methods, to fulfill their energy requirements and reduce operational expenses. Furthermore, wineries are progressively adopting energy storage solutions, not only to reduce costs but also to improve the reliability of their energy supply.

The significant impact and value of these investments in distributed energy resources to the broader power infrastructure should be acknowledged and encouraged within the State's infrastructure plan. These endeavours not only enhance the self-reliance and cost-effectiveness of wineries but also contribute substantively to the overall resiliency and stability of the energy grid.

Globally, there is a prevailing shift toward decarbonising energy production and this trend is likely to persist in South Australia. The state has witnessed substantial investments in renewable energy infrastructure, grid-scale batteries and community virtual power plants. Recognising the imperative of reducing emissions, especially in the transport sector, SAWIA emphasises the need to decarbonise transport throughout the wine sector's value chain.

This aligns with South Australia's net-zero objectives and the broader wine sector's sustainability goals. However, high capital costs of decarbonising transportation, for example electric tractors in vineyards, remains a significant barrier. In addition, strengthening the capacity of the distribution grid would be essential to assist in the ability of the wine sector to access the required charging infrastructure at the vineyard enterprise level.

Recognising that the exploration of alternative fuel sources for decarbonised electricity production, such as hydrogen fuel, is already underway, it remains evident that electricity grids must be fortified to withstand the potential demands arising from increased electrification of transport systems. This adaptation is vital for securing a resilient and sustainable energy future for the wine industry and South Australia as a whole.

Digital connectivity

Local communities benefit greatly from improved digital connectivity, aiding them in accessing services, connecting globally and efficiently meeting their needs.

The Federal Government has long-standing initiatives to fund better digital connectivity, particularly in smaller communities and along major regional transport routes. Despite some improvements in mobile phone coverage in regional South Australia from previous funding, there are still areas with mobile black spots along key travel routes to Coonawarra, Padthaway, Riverland, Kangaroo Island, Adelaide Hills, Langhorne Creek, Currency Creek, Barossa and Clare Valley.

In this regard, we welcome the South Australian government's funding announcement¹⁴ for 27 mobile towers in remote areas of the South East.

However, it is important for the South Australian State Government to actively secure its fair share of Federal Government funding to address these mobile black spots. Additionally, the State Government should be prepared to contribute financially to ensure comprehensive mobile phone access, supporting the wine industry, job creation and tourism in South Australia's wine regions.

Addressing accessibility issues, the Australian Digital Inclusion Index (ADII)¹⁵, which gauges access, affordability and digital proficiency on a national and state level, reported South Australia as the third-lowest jurisdiction in the nation in 2023 in relation to accessibility. Numerous wine regions in South Australia not only fall significantly below the national average but also lag the state average, underscoring the need for targeted efforts to bridge the digital divide.

¹⁴ ABC News 2023, <https://www.abc.net.au/news/2023-10-28/housing-for-bordertown-during-country-cabinet-visit/103034924>

¹⁵ Measuring Australia's Digital Divide, Australian Digital Inclusion Index 2023, ARC Centre of Excellence for Automated Decision-Making and Society, RMIT University, Swinburne University of Technology and Telstra

Coordinated planning and housing affordability

The sustainable growth and long-term prosperity of the South Australian wine industry hinge on a well-structured planning regime that ensures the statutory protection of viticulture land against unsuitable urban development, particularly residential expansion within primary production zones.

Within the Greater Adelaide Planning Region, the Environment and Food Production Areas (EFPA) play a crucial role in safeguarding viticultural land, especially for those wine regions not already benefiting from more robust protection via the Character Preservation Laws. These areas encompass significant wine regions, including Langhorne Creek, Currency Creek, Southern Fleurieu, Adelaide Hills (with a small portion included in the Barossa Character Preservation District) and the Adelaide Plains wine region.

SAWIA strongly supports the Character Preservation Laws, which have played a pivotal role in safeguarding agricultural land for wine production and mitigating the risk of urban encroachment within preservation areas. These Character Preservation Districts and their existing boundaries enjoy strong support from the wine industry, essential for ensuring comprehensive protection against urban sprawl into viticulture land.

In light of these considerations, SAWIA recently made a submission to the State Planning Commission's Discussion Paper on the Greater Adelaide Regional Plan, recommending planning in the Greater Adelaide region to incorporate the following principles and objectives:

- Ensuring the long-term protection and integrity of the EFPAs.
- Acknowledging and upholding the Character Preservation Laws.
- Recognising the substantial financial and employment contributions of vineyards and wineries to the state, emphasising the importance of wine and tourism, which often outweigh the perceived value of vineyard land.
- Upholding the 'right to farm' principle, wherein new residents and land users understand they inhabit an agricultural land protection area where the viability and sustainability of agriculture take precedence.
- Ensuring stringent environmental requirements for all new development.
- Preserving the rural character and landscape of a region, appreciating its desirability as a place to live and its capacity to provide an exceptional quality of life within globally recognised wine regions.
- Determining population projections for a given agricultural land protection area based on minimum-sized land allotments and town infill.
- Recognising that agriculture is the primary user of groundwater, necessitating data collection and long-term monitoring to ensure the continued availability of water in both quantity and quality.
- Adapting development to allow for access to a sufficient quantity and quality of water and infrastructure to support the local community and wine industry.
- Establishing a transparent and equitable mechanism with appropriate checks and balances in place if existing protected land is considered for re-zoning.

Urbanisation poses a substantial challenge to the biosecurity of South Australia's vineyards, given that the expansion of cities changes interactions between people, wildlife, agriculture and disease vectors.

This shift can increase the risk of spreading pests and diseases. Peri-urban regions are particularly vulnerable to new pest and disease risks, often under the stewardship of inexperienced or disengaged owners. Breaches of biosecurity can have significant detrimental impacts on agricultural production and communities, necessitating increased

resource demands for monitoring, enforcement and public awareness campaigns. Thus, any population and housing growth planning should consider its impact on high-value agricultural activities.

The wine industry experiences peak periods that require a significant influx of labor for condensed durations. These peak periods are determined by the time of year (e.g., pruning in winter, harvest in summer-autumn), but can also be influenced by seasonal factors such as weather conditions. Feedback from wine industry employers highlights that housing availability and costs are increasingly challenging in regional locations, affecting their ability to meet labour needs.

While businesses are trying to find temporary solution such as a combination or sourcing rental properties, utilising limited company-owned housing, encourage house sharing etc, these are short-term, limited measures only. SAWIA seeks to understand how local governments are addressing these challenges. It is important to consider zoning, subdivisions and the construction of new housing in regional communities, taking into account the need for diverse accommodation options.

SAWIA notes the announcement by the South Australian government to kick start a development project for housing in Bordertown, addressing the lack of housing for the local workforce. SAWIA is hopeful this could be used as a model for other locations with the local housing market not being able to respond to the demand for housing. In addition, it is important that the Strategy specifically addresses and contains measures in relation to regional housing and necessary infrastructure to support regional housing.

It is crucial to protect land for primary production, including viticulture. Measures such as infill housing, rezoning from industrial production and subdivision for higher-density living must be considered whilst protecting primary production land. Barriers, if any, to addressing these challenges must be identified and tackled. Moreover, leadership from the South Australian State Government is needed to facilitate the growth of affordable housing in regional communities. Collaborative efforts between the state and local governments are essential to address these issues effectively.

Cultural and tourism

Tourism stands as a pivotal growth sector in South Australia, poised to play a vital role in the state's economic landscape. Over the past decade, tourism has outperformed various other industries, including manufacturing, agriculture, healthcare and financial services. South Australia boasts a diverse array of tourism assets, particularly in the realms of food and wine, events and festivals, road trips and immersive nature-based and cultural tourism. Adelaide serves as the gateway to the state's enthralling outback tourism destinations.

Maintaining adequate and well-maintained infrastructure is necessary to fostering increased visitation to Adelaide and various South Australian regions. The visitor economy heavily relies on appropriate investments in supporting infrastructure, encompassing airports, road networks, rail systems, ferry services, as well as quality hotel accommodations and experiential offerings. Although the core purpose of this infrastructure is not solely centred on tourism, its quality and accessibility significantly impact the visitor experience. Notably, iconic cultural and sporting infrastructure assets can serve as strong demand drivers for tourism.

Wine tourism plays a critical role in driving visitors to South Australian regions, originating from intra-state, interstate and international locations. It serves as a significant source of revenue diversification and adds value to regional South Australia.

South Australia boasts a strong reputation for producing quality wine and its easily accessible wine regions have the highest instance of wine region international visitation among all states.

Additionally, South Australia enjoys the highest level of visitor satisfaction for wine experiences compared to other states in Australia, with 61% of visitors expressing satisfaction with their wine-related experiences. This high level of satisfaction is a compelling factor in attracting visitors to wine regions.

Regional accommodation poses a challenging scenario, with few hotels capable of accommodating larger numbers of visitors or catering to the business events and conference market. Only a limited number of four- and five-star accommodation venues exist outside Adelaide and older accommodations often fail to meet the quality standards expected by tourists, particularly those from international markets.

A comprehensive regional audit of accommodation conducted by SATC has reinforced this perspective and identified the need for elevating the standard of tourist accommodations in regional South Australia to align with other states and more unique and experiential accommodations in regional areas. In pursuing enhanced accommodation developments in regional South Australia, it is essential that the Planning and Design Code is adhered to provide confidence to the local community and reduce the risk of disputes.

Efficient road networks also play an integral role in ensuring that tourists can drive safely to all corners of the state. As highlighted earlier in the submission, the relatively poor state of SA's road network compared to other states requires investments to improve the self-drive visitor experience

Concluding remarks

In summary, the success of South Australia's wine industry depends on practical infrastructure planning tailored to the needs of our regional grape growers and winemakers. A reliable regional road system is essential, ensuring that South Australian wines can reach global markets effortlessly.

Equally important is the availability of dependable internet and mobile phone connections in regional areas. These are not just conveniences but necessities for businesses and the increasing number of tourists seeking authentic experiences in our regional landscapes.

SAWIA advocates for infrastructure planning to focus on the following key areas:

- **Freight and Supply Networks:** Streamlining the movement of grapes, supplies and finished products through integrated road transport, rail, maritime and air cargo systems.
- **Water:** Ensuring affordable access to an adequate and quality water supply where it is needed, safeguarding the industry's sustainability.
- **Energy:** Providing reliable access to affordable energy while supporting the industry's shift to cleaner energy sources.
- **Digital Connectivity:** Establishing and maintaining reliable mobile and internet connectivity to support jobs and tourism in regional areas.

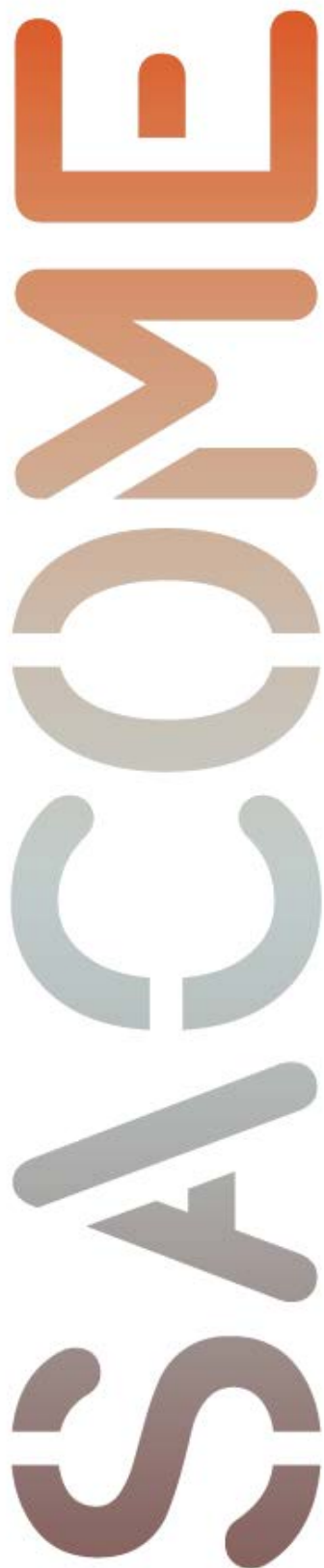
- Coordinated Planning for Affordable Housing: Balancing employment support in regional areas with the need to preserve vital primary production land through sensible and affordable housing initiatives.
- Cultural and Tourism Development: Encouraging the growth of tourism and attracting international visitors to South Australia's diverse wine regions.

By addressing these infrastructure needs with practical solutions, we can ensure the ongoing success of South Australia's wine industry, an industry which not only is iconic and crucial to South Australia's story and heritage but is fundamental to the prosperity of the State, making a \$2.25 billion contribution to the State's economy¹⁶, employing around 8,990 people¹⁷ and indirectly supporting another 81,900 jobs¹⁸.

¹⁶ Primary Industries Scorecard 2021-22.

¹⁷ Census 2021, Australian Bureau of Statistics

¹⁸ Derived from Economic Contribution of the Australian Wine Sector 2019, AgEconPlus. Wine Australia [website](#)



Submission to the Infrastructure SA 20-Year State Infrastructure Strategy Discussion Paper

November 2023

South Australian Chamber of Mines & Energy

The leading industry body representing the resources sector in South Australia

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Introduction

The South Australian Chamber of Mines and Energy (SACOME) is the leading industry association representing the resources and energy sector in South Australia; the powerhouse of the State's economy.

SACOME welcomes the opportunity to provide this submission to the 20-Year State Infrastructure Strategy Discussion Paper.

SACOME recognises the importance of InfrastructureSA's (ISA) work and commends ISA on its development and implementation of the inaugural 20-Year State Infrastructure Strategy (the Strategy).

ISA's focus on long-term infrastructure planning since implementation of the Strategy in 2020 has facilitated informed policy development to address a range of long-standing infrastructure hurdles that have historically acted as impediments to the development of the resources sector in South Australia.

Noting that resources projects can often take decades to reach production, we strongly support a policy rationale that embeds continuity and persistence, recognising that long-term outcomes can only be realised through dedicated effort.

As detailed in SACOME's 2024 Vision, road, rail, water, and power infrastructure are critical for the development of resources projects. SACOME's 2024 Vision highlights the need for a long-term strategic focus underpinned by industry and government collaboration.

Noting the progress made since implementation of the Strategy in 2020, SACOME strongly supports the ISA's ongoing work in scoping and subsequently progressing infrastructure requirements to support the State's economic growth over the long-term.

SACOME's submission to the original 20-Year Infrastructure Strategy prioritised support for the following projects:

- The development of a Resources Sector Heatmap to enable the Government to quantify and understand the economic value of respective resources provinces;
- Resources Infrastructure Corridors, to unlock shared user infrastructure and facilitate project development through economies of scale; and
- Maintenance and upgrade of regional and remote roads.

SACOME is pleased to acknowledge that these policy priorities set out in its first submission are now materially advanced.

In addition, SACOME has continued to advocate for development of the Northern Water Project. This initiative was submitted to the South Australian Government by SACOME as a post-COVID economic stimulus project in 2020.

SACOME acknowledges the support of Infrastructure SA in advancing this major state economic development initiative which was included on the Infrastructure Australia Priority List in February 2021. Crucially, the Northern Water Project has benefited from bipartisan support and continuity across electoral cycles and a change of government as a result of ISA's rigorous assessment processes.

Following a favourable business case, the project is progressing toward a Final Investment Decision in Q4 2022 and has also attracted \$100 million in equity funding from the State Government in the State Budget.

SACOME's sustained advocacy for the Northern Water Project offers demonstrable benefit to the resources sector while also enabling the Malinauskas Government to meet the objectives of its Hydrogen Jobs Plan, and support the economic and civic growth of Upper Spencer Gulf communities.

SACOME notes that the revised Strategy will be guided by the South Australian Government's vision of '*an economy that is smart, sustainable and inclusive*' and by the following six objectives:

1. Enabling infrastructure
2. Liveable and well-planned spaces
3. Accessible and inclusive infrastructure
4. A decarbonised, sustainable economy
5. Improved resilience
6. A stronger infrastructure industry

While SACOME strongly supports all these objectives, our submission focuses on three of these given their relevance to the resources sector, namely: Objective 1 - Enabling infrastructure, Objective 4 - A decarbonised, sustainable economy, and Objective 6 - A stronger infrastructure industry.

SACOME also supports the use of the megatrends identified in the Discussion Paper as a backdrop for strategic planning – principally 'climate change adaptation and mitigation'; and 'accelerated digital transformation'.

Given the breadth of issues contained in the Discussion Paper, SACOME's responses are guided by the questions and themes relevant to the resources sector rather than providing specific answers to each question.

SACOME's submission is informed by consultation with its member companies to identify emerging priorities; and resubmits existing policy priorities of continuing relevance, recognising that delivery of major infrastructure projects will carry across successive iterations of the 20-Year State Infrastructure Strategy.

SACOME continues to advocate for initiatives that resolve structural impediments to the development of the State's resources provinces, recognising that access to water, power and suitable transport and logistics routes are required to underpin greater levels of investment in South Australia and achieve the South Australian Government's economic growth ambitions.

1.0 Enabling Infrastructure

The first objective of the Discussion Paper is:

'Enabling infrastructure unlocks higher productivity and economic growth to improve our living standards'.

The Discussion Paper posits that the 'right' enabling infrastructure must be in place for South Australia to capitalise on any economic opportunities arising from the energy transition, whether from the development of existing infrastructure, building new infrastructure, or developing new capabilities and skills.

Accordingly, SACOME proposes the following new initiatives:

- Development of new, priority transmission infrastructure to meet current and emerging needs;
- Building water supply capacity to service industry and communities on the Eyre Peninsula;
- Supporting the development of a CO₂ industry to meet the current and future needs of the food, beverage and building industries, as well as the development of biofuels;
- Investigating the potential for a rail freight incentive scheme; and
- Development of a Critical Minerals to Metals Strategy.

SACOME also reiterates the importance of previous initiatives for which we have advocated, namely the:

- Northern Water Project;
- Resources Sector Heatmap; and
- Infrastructure Corridors.

The Northern Water Project remains a critical enabler to growth of the South Australian resources sector and the South Australian Government's hydrogen and green industry transition goals.

Completion of the Northern Water Project achieves the supply of water as an input to industrial process in the Far North, facilitates development of the Gawler Craton and plays a critical role in production of green steel and hydrogen in the Upper Spencer Gulf.

The purpose of the Heatmap was to provide Government with a consolidated understanding of the value of South Australia's resources provinces to enable the identification of regions of priority economic development.

SACOME's intent was for the Heatmap to inform infrastructure decisions, such as the location of multi-user corridors, and thereby grow resources exports from historically underdeveloped provinces.

As industry was not intended to be the direct recipient of the Heatmap, SACOME has only recently become aware that the Heatmap is considered of limited utility as it only considers the present-day value of provinces and has been mapped at an SA-2 level, rather than at provinces level.

SACOME submits that the Heatmap should be finalised in line with its original intent for use as a vehicle to inform Government decision-making and as an investment attraction tool to enable province development.

1.1 Transmission Infrastructure

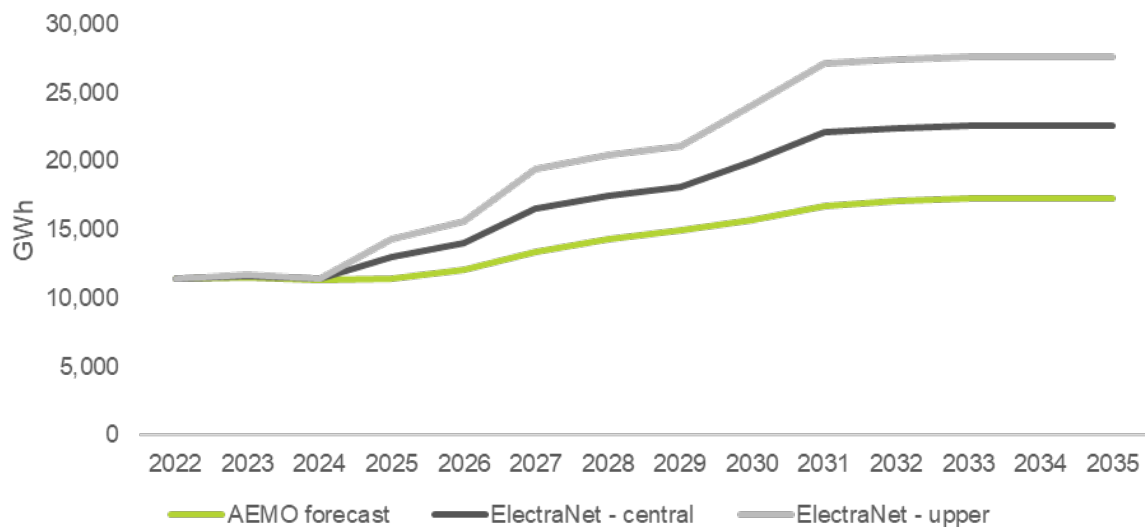
As identified in the Discussion Paper, South Australia's electricity transmission network is an essential enabler in the transition to a net zero emissions future and in supporting the South Australian Government's economic development strategy.

South Australia is experiencing a rapid and significant uplift in its electricity demand. Key drivers include:

- The potential connection of large new customer loads such as new or expanded mining operations, new industrial loads and other energy-intensive projects such as data centres.
- The development of large iron ore mining operations and the production of "green steel" in keeping with the South Australian Government's Magnetite Strategy.
- The development of hydrogen facilities near Whyalla and other large hydrogen hubs in accordance with the South Australia Government's hydrogen ambitions.

On present indications, it is predicted that around 1,000 MW of additional load will connect to the transmission network by 2030. This is illustrated in Figure 1 below (in energy terms) set against AEMO's current forecast. The upper forecast shows the outlook if all loads currently in connection discussions were to proceed. Importantly, this does not include a range of known loads that have not yet started connection discussions.

Figure 1. South Australian Electricity Demand Outlook

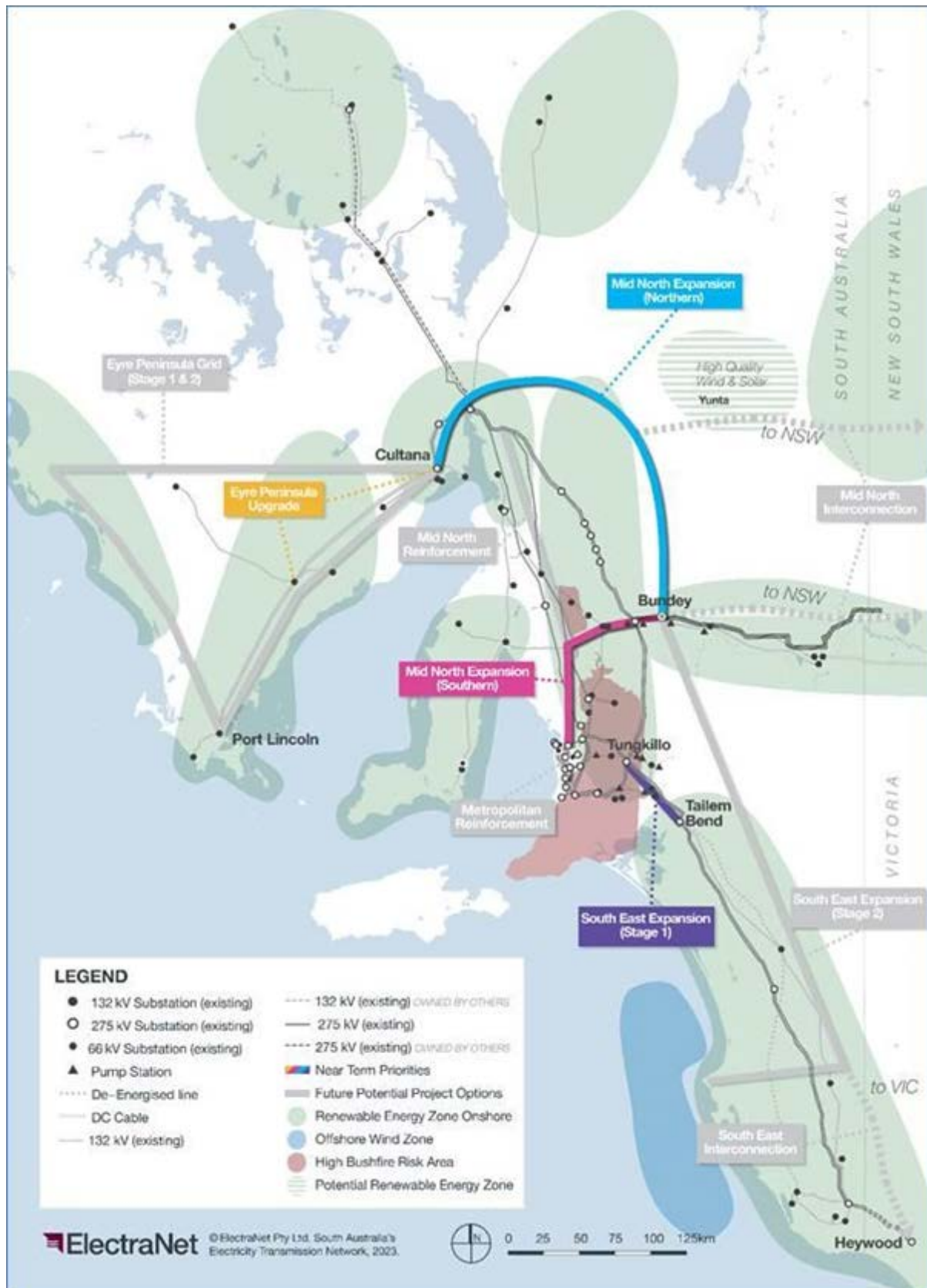


The development of major transmission assets requires at least 5 years from initial planning to delivery.

Recent analysis by ElectraNet shows that building multiple transmission lines with lower capacity can be considerably more expensive than building the right-sized infrastructure, at a ratio of up to 6 to 1.

The following near-term network development priorities have been identified as requiring priority action:

- Mid-North Expansion (Southern) - following preparatory activities completed in 2022-23 this project should be progressed as an 'actionable' project in AEMO's 2024 ISP
- Mid-North Expansion (Northern) - this project should be progressed as an 'actionable' project in AEMO's 2024 ISP
- Eyre Peninsula upgrade - following the completion of the Eyre Peninsula Link line rebuild in February 2023, based on new load interest the Regulatory Investment Test for Transmission will shortly commence to investigate options to increase the capacity of the line and service the growing needs of the region
- South-East Expansion - following preparatory activities completed in 2022-23 this project should be progressed as an actionable project in AEMO's 2024 ISP



The Mid-North Expansion (Southern) is an essential part of the 'network backbone' and is required to enable higher transfers of renewable energy to meet load growth and ensure the security of supply through a diverse transmission path to Adelaide as South Australia becomes increasingly dependent on more distant renewable sources as local gas generators retire. It is recommended this commence as an 'actionable' project as soon as possible.

The Mid-North Expansion (Northern) also forms part of the 'network backbone' and is central to achieving the Government's economic policy objectives in meeting demand growth and unlocking renewable energy resources. This should commence as an 'actionable' project as soon as possible to support emerging loads and deliver full benefits to customers.

Together, the Mid-North Expansion (Southern) and Mid-North Expansion (Northern) projects will unlock substantial benefits for the State by enabling industry growth and delivering additional local renewable energy development.

SACOME submits that the Strategy should identify the Mid-North Expansion (Southern) and Mid-North Expansion (Northern) as priority strategic infrastructure priorities for the State to progress to ensure major network development timing is aligned with the growth of South Australia's economy as a major enabler for industrial, mining, and hydrogen development.

1.1.1 Recommendation:

The timely and efficient development of the transmission network, with particular attention to the Mid-North Expansion projects, should form a key component of South Australia's 20 Year State Infrastructure Strategy to meet the State's ongoing and emerging needs, support the Government's economic priorities and deliver a least-cost energy transition to Net Zero.

1.2 Water

Northern Water Project

SACOME again acknowledges ISA's dedicated efforts in progressing the Northern Water Project to its current stage, with final project decision expected in 2025.

SACOME notes that the final decision to proceed with construction of the Northern Water project will rely on gaining required project approvals and agreements, encompassing extended consultations with traditional owners, landholders, and the community; comprehensive evaluations of environmental, engineering, and economic aspects of the project; and commercial negotiations for project delivery and water purchase.

Infrastructure Australia identified water supply as one of the three most frequently cited infrastructure gaps in South Australia's regions. Water capacity is crucial to thriving

manufacturing, mining, agricultural and hydrogen industries, as well as supporting the needs of residents in regional communities.

SACOME reiterates its support for the Northern Water Project in the strongest terms.

Eyre Peninsula

Recent economic analysis by RDA puts the Eyre Peninsula's Gross Regional Product at approximately \$4 billion, representing over 3% of the State's economy.

Construction of civic and industrial infrastructure will significantly assist in supporting regional development and unlocking economic growth on the Eyre Peninsula.

SA Water is examining measures to rapidly address supply on Eyre Peninsula given the current system is not capable of supporting the present or future needs of either communities or industry.

Communities earmarked to support industry and population growth across the Eyre Peninsula cannot presently secure the water supplies they currently require. SACOME submits that greater focus is required to facilitate a water solution for the Eyre Peninsula.

Andromeda Metals' Great White Project south of Poochera near Streaky Bay is a case in point.

In order to start the Great White project, water will need to be trucked into the site at a high operating cost. A 17km pipeline is planned for installation facilitating water to the site, however, this will be limited by the capacity (volume and pressure) currently available in the Tod main at 3.6 litres per second. To support the future growth of the project, up to 20 litres per second is required.

To provide this supply, the proposed desalination plant will need to be built, commissioned, and supplying into the system, noting that this will not provide additional water to the community despite the need for increased supplies to support growth.

SA Water is currently completing its investigations into the Billy Lights desalination plant at Port Lincoln and is in the Early Contractor Indication phase, with the intention to supply potable water from 2025.

SACOME submits that this work should be prioritised to support regional economic and civic development on the Eyre Peninsula.

1.2.1 Recommendations

Northern Water Project

SACOME reiterates its strong support for the Northern Water Project and calls for continued effort by ISA and the South Australian Government to bring it to development.

Eyre Peninsula

To support future project growth on the Eyre Peninsula, SACOME recommends development of the Billy Lights Point Desalination Plant Port Lincoln desalination plant be prioritised and commissioned as an intermediate solution while the Northern Water Project continues to be evaluated.

1.3 Rail Incentives

Consistent with the objectives of the Discussion Paper, a stronger rail freight network would have the effect of reducing road congestion and generating savings in road maintenance. Moreover, the transportation of freight by rail reduces carbon emissions by approximately two-thirds.

SACOME notes that other Australian jurisdictions have taken the lead in the development of rail freight incentive schemes.

Victoria has implemented a Mode Shift Incentive Scheme, which involves the Government providing incentives for the transport of containerised freight by rail instead of by road. Queensland is trialling rail incentives for bulk freight.

Importantly, in the South Australian context, bulk freight by rail may result in exporters having more options in the consideration of suitable ports. Consistent with long-term SACOME calls, it would maximise the prospects of South Australia securing a part of the valuable supply chain, rather than seeing exports travel to ports in other states.

1.3.1 Recommendation

SACOME recommends that Infrastructure SA, with the assistance of suitable bodies, such as the Freight and Supply Chain Consultative Committee, be tasked with developing policies that strengthen South Australia's rail network, including the consideration of rail freight incentives.

1.4 Critical Minerals to Metals

Consistent with long-term calls, SACOME recommends the development and prioritisation of a South Australian Critical Minerals to Metals Strategy to capture the full value of South Australia's resources and embed a pathway for value-adding.

This is in addition to [advocacy](#) to the Commonwealth Government recommending the inclusion of copper and zinc to the Commonwealth's Critical Minerals List. As part of this submission, SACOME supported a broadening of criteria to encompass processing capability and ensure sovereign capability issues are fully considered. As noted by Tesla Chair, Robyn Denham, Australia should aspire to more than "dig and ship", but rather become a "processing powerhouse".

South Australia is uniquely placed in this regard and therefore should be looking to the development of processing hubs as part of its economic transition agenda.

Nyrstar is an international producer and refiner of critical minerals and metals necessary for decarbonisation. With the appropriate investment, its existing smelters at Port Pirie and Hobart could be upgraded to allow for greater processing and refining opportunities. This includes the further release of critical metals such as indium and germanium as a by-product of zinc, as well as opportunities for antimony, bismuth, and manganese.

BHP is investigating two-stage smelting at Olympic Dam to grow copper cathode production from its present level of 200,000 tonnes to more than 500,000 tonnes per annum. Further processing of the ore would also produce opportunities for antimony and bismuth.

Global demand for critical minerals will continue to increase. Recently, China has been implementing further trade controls on its critical minerals and rare earths. This presents huge untapped economic opportunities for South Australia which has an abundance of critical mineral wealth, including 80% of Australia's battery-grade graphite resources and large quantities of lithium, cobalt, manganese, and nickel.

The national impetus for the development of critical mineral projects is evident in the Federal Government's Critical Minerals Strategy and funding of rare earths and battery projects as part of its \$4 billion Critical Minerals Facility Funding. SACOME submits that South Australia is well-placed to capitalise on this Commonwealth investment.

1.4.1 Recommendation

SACOME submits that South Australia develop a Critical Minerals to Metals Strategy to capture the full value of our resources, with Government to consider supports for the development of processing hubs.

2.0 A Stronger Infrastructure Industry

The sixth objective of the Discussion Paper is:

'A stronger infrastructure industry optimises our infrastructure investment through better planning and prioritisation.'

The Discussion Paper further highlights that 'good infrastructure planning... [requires] a robust evidence base'.

Although digital infrastructure is undoubtedly enabling infrastructure, it is SACOME's view that cyber-physical systems and other digital capabilities, as outlined below, are key to capturing the data necessary to make informed infrastructure decisions.

2.1 Digital Infrastructure

The principal impediment to the uptake of future-facing digital technology is a lack of understanding as to what it is needed, what it involves, or how transformative embedding it within Government or the private sector could be.

The South Australian Government's *ICT, Cyber Security and Digital Government Strategy - Update for 2022* makes no reference to cyber-physical systems (CPS) or the Internet of Things (IoT), instead focussing on cyber security challenges. While crucial, overlooking the former comes at an economic cost to South Australia.

General constructions of what this digital capability could be tend to relate to technologies that involve a significant level of user input or involvement to simplify or streamline existing processes that largely mirror analogue ones.

In contrast, CPS integrates computation, networking, and physical processes and can be characterised as the most advanced form of digital twins. By embedding computing and communication capabilities into physical devices and infrastructure, CPS can dramatically transform how we interact with the environment and built systems. In essence, it is what is often described as "smart technology" and can be regarded as a more advanced and larger-scale iteration of IoT.

The data generated from CPS can be fed into decision-support systems that use advanced analytics and AI. This can help policymakers and businesses make informed decisions that align with their policy goals. CPS has a particular role to play in addressing climate change and improving public infrastructure.

SACOME members are particularly interested in its applications for supporting the real-time collection of temperature, emissions and other environmental data, and informing ways these can be mitigated or improved.

By way of example, CPS already supports precision agriculture, the use of smart grids, and traffic management systems.

SACOME submits that strategic adaptation of CPS aligns with industry and government's vision of a smart, sustainable economy.

Government has a leadership role to play in uptake of CPS. Some work to date has already been undertaken by the Commonwealth Government in respect of "Industry 4.0" test labs and there has been an IoT strategy developed by the Western Australian Government and a report on its economic potential by PwC, in addition to the formation of an industry-supported IoT alliance.

2.1.1 Recommendation:

SACOME recommends that a Taskforce in South Australia be established, comprising representation of business experts, universities and other suitable persons, to provide high-level and holistic advice to Government as to how to support CPS, the potential value to the South Australian economy, and how it could be used across Government and the private sector to drive green growth.

3.0 A Decarbonised, Sustainable Economy

The fourth objective of the Discussion Paper is:

'Infrastructure supports a decarbonised, sustainable economy that capitalises on our competitive advantages and opportunities.'

SACOME's longstanding policy position is one of technological neutrality, and we submit that all power sources, including nuclear power, should be considered as part of the energy generation mix to meet the State's future energy needs and as a means of decarbonising the economy.

SACOME provided detailed comment on energy policy in its submission to the Department of Energy & Mining's *Green Paper on the Energy Transition* in August 2023.¹

The energy transition challenge is defined not only by the need to retrofit the South Australian electricity network to accommodate the influx of renewables-based power, nor in meeting our Net Zero commitments, but to do so in a manner that preserves and expands the State's industrial base.

As a broad statement of future policy development, the energy transition must be considered in conjunction with industry and economic growth policy so as to better mitigate adverse impacts for entities that have made major capital investment in South Australia; and to enable future investment by industrial operators.

Past energy policy decisions across the last twenty years have resulted in higher electricity prices, lower system security and far greater risk and uncertainty for industry.

Recent independent analysis commissioned by SACOME has confirmed South Australia's energy transition has cost hundreds of millions in system security costs, market interventions, infrastructure upgrades and energy transition measures since 2016, with costs continuing to escalate.²

Acknowledging the deeply complex nature of the energy market, coupled with the need to rapidly decarbonise the economy, SACOME has long advocated to the State Government for an orderly Energy Transition Roadmap that accounts for the whole cost of the energy system and minimises costs for South Australian businesses.

¹https://www.sacome.org.au/uploads/1/1/3/2/113283509/sacome_ordering_the_disorderly_transition_august_2023.pdf

² https://www.sacome.org.au/uploads/1/1/3/2/113283509/sacome_media_release_-_unplanned_energy_transition_costing_industry_final_-_18_september_2023.pdf

Affordable and reliable power remains critical to the economic viability of commercial and industrial operations and SACOME submits that it must continue to be observed as a central policy tenet.

3.1 CO₂ Supply

Disruptions to food and industrial-grade CO₂ supplies are impacting the South Australian food and beverage industries, including major wineries, breweries and soft drink suppliers.

This situation will be exacerbated over the next three years with the planned progressive shutdown of Torrens Island Power Station through to June 2026, which has been the main source of food-grade CO₂ in SA since 2019, processed from its waste gas stream. CO₂ users are currently experiencing shortages due to plant shutdowns, as well as exposure to high import prices.

South Australian company Vintage Energy, along with Otway Energy, have discovered a natural source of high-quality CO₂ at Nangwarry in the southeast of South Australia that can be processed on-site to food and industrial grade. With the potential to provide over 20 years of continuous supply, the Nangwarry CO₂ project would provide a long-term and stable source of CO₂ for the South Australian food, beverage and building industries, as well as support South Australia's green industries.

The project also strongly supports improved resilience to shocks and events to help avoid or respond to disruptions that impact our economy, services, and supply chains, in alignment with the objectives of InfrastructureSA. SACOME submits that consideration should be given to appropriate supports.

To date, this joint venture has invested approximately \$20 million in the exploration, drilling, discovery, and testing of the CO₂ field which is estimated to hold about 1.3 million tonnes of gross on-block recoverable CO₂. To develop this site, an investment of approximately \$30-\$40 million is required in the design and construction of a fit-for-purpose 175-tonne-per-day processing plant. This would more than meet the 100-150 tonne per day requirement for CO₂ in South Australia, with the ability to service future needs.

The project will also investigate the potential to reinvigorate the transport industry in the southeast region, following the closure of Scott's Transport, and is considering opportunities to attract industry to the area to be close to the CO₂ source, such as greenhouse food production and building product manufacturing.

In addition to these industrial uses, CO₂ is used to cultivate algae, which can be used for biofuel production, which has significant applications in transport, heating, industrial processes and electricity generation to reduce emissions and diversify our energy mix. Algae can also be used for carbon sequestration.

Current major users of CO₂ in South Australia include Sundrop Farms, Ingham's Chickens, Treasury Wines (including Penfolds, Wolf Blass and Wynns), Coopers Brewery, Holla-Fresh, and the desalination plant. Interest has also been shown in a new supply of CO₂ by OTR, Bickfords, and the Coonawarra Vignerons Association (CGWI) in SA, as well as Bundaberg soft drinks in Queensland.

3.1.1 Recommendation

SACOME recommends that the South Australian Government offer appropriate support for the development of the Nangwarry CO₂ project to facilitate the growth in the food, beverage, and building industries; and the development of biofuels to reduce emissions in line with this project's potential to help avoid or respond to disruptions that impact our economy, services, and supply chains.

3.2 Pipeline from Port Bonython to Moomba

The International Energy Agency has forecasted that a hundredfold increase in Carbon Capture and Storage (CCS) is required between now and 2050 to achieve the world's climate goals pursuant to their Sustainable Development Scenario – from approximately 40 million tonnes of CO₂ currently stored each year to 5.6 billion tonnes in 30 years.

Santos, with its Joint Venture partner Beach Energy, is constructing the \$200 million Moomba CCS facility; one of Australia's largest infrastructure investments in reducing carbon emissions.

This notwithstanding, the Petroleum and Geothermal Energy Amendment Bill proposes to levy a rent on CCS from international jurisdictions. Countries such as Japan and South Korea have made clear their interest in CCS opportunities given the limited opportunities for decarbonisation.

Given the significant growth opportunity from the economic and environmental imperative to decarbonise, and the State Government's ongoing interest in growing royalty income, consideration should be given to appropriate funding supports for the construction of a dedicated CO₂ pipeline from Port Bonython to Moomba to facilitate the storage of international carbon.

3.2.1 Recommendation:

Consideration should be to appropriate funding supports for the construction of a CO₂ pipeline from Port Bonython to Moomba to facilitate the storage of international carbon.

3.3 Industrial Transition & Decarbonisation

SACOME acknowledges the South Australian Government's objectives of industrial transformation and decarbonisation.

The *South Australian Economic Statement* released by the Malinauskas Government in March 2023 aims to 'capitalise on the green energy transition'.

Additionally, the Department of Energy & Mining's (DEM) *Magnetite Strategy; Green Paper on the Energy Transition*; the Office for Hydrogen Power's (OHPSA) *Hydrogen Jobs Plan*; and the Department for Industry, Innovation & Science's (DIIS) *South Australia's Advanced Manufacturing Strategy* set a consistent policy agenda for the State in support of this vision.

SACOME member company, SIMEC Mining has made significant investment in infrastructure to achieve decarbonisation of its operations and facilitate a 'green transition' of its industrial activities consistent with the State's policy agenda.

Central to this industrial transformation is sustainable production of GREENIRON and GREENSTEEL in Whyalla, informed by its 'carbon neutral by 2030' (CN30) objective.

SIMEC's investment in direct reduction iron (DRI) plant and electric arc furnaces capable of being fed by hydrogen fuel allow for the carbon neutral production of iron and steel.

This major investment in new plant and equipment demonstrates the capital-intensive nature of transitioning heavy industry away from its traditional use of fossil fuels and toward renewable power and greater process efficiency.

An immediate challenge is to scale up green hydrogen production sufficient to meet industrial needs and to do so at competitive 'dollar per kilogram' price. In doing so, the question of hydrogen's cost as an energy source must be settled.

Timeframe is a critical consideration as the sooner green hydrogen is available for wide scale use by industry, the sooner emissions reductions targets can be achieved. As such, the timely implementation of policy measures, planning and investment decisions relevant to the hydrogen supply chain is critical.

Development of civic infrastructure in Whyalla and the Upper Spencer Gulf remains an issue of importance, noting that SIMEC intends to increase its workforce by 500-600 people in the short term; and the Hydrogen Jobs Plan estimates workforce growth of an additional 5000-6000 people over a similar timeframe.

Regional growth of this scale necessitates investment in a broad range of infrastructure to support increased population.

In addition to power, water and transport infrastructure to underpin civic growth, investment in sporting, community, hospitality, tourism, housing and educational infrastructure is required to ensure that Whyalla is an attractive place to live and work.

SACOME supports SIMEC's industrial transformation and decarbonisation efforts noting that they provide a template for transition of heavy industry consistent with the South Australian Government's policy agenda.

SACOME notes that SIMEC has also made a detailed submission to ISA as part of this consultation process and lends its support to the recommendations made therein.

3.3.1 Recommendation:

SACOME recommends that consideration is given to the broader civic infrastructure requirements of the green industrial transformation to inform 'whole of supply chain' infrastructure planning.

Summary of Recommendations

SACOME's list of projects and recommendations submitted for consideration by InfrastructureSA are informed by member feedback and are in strong alignment with the South Australian Government's vision of a smart and sustainable economy, with a particular focus on enabling infrastructure, decarbonising the economy and supporting the green industry transition.

1. The timely and efficient development of the transmission network, with particular attention to the Mid-North Expansion projects should form a key component of South Australia's 20 Year State Infrastructure Strategy so as to meet the State's current and emerging energy needs, support the Government's economic priorities and deliver a least-cost energy transition to Net Zero.
2. SACOME reiterates its strong support for the Northern Water Project and calls for continued effort by InfrastructureSA and the South Australian Government to bring it to development.
3. To support future project growth on the Eyre Peninsula, SACOME recommends that development of the Billy Lights Point Desalination Plant Port Lincoln desalination plant be prioritised and commissioned as an intermediate solution while the Northern Water Project continues to be evaluated.
4. SACOME recommends that the South Australian Government offer appropriate support for the development of the Nangwarry CO₂ project to facilitate the growth in the food, beverage, and building industries; and the development of biofuels to reduce emissions in line with this project's potential to help avoid or respond to disruptions that impact our economy, services, and supply chains.
5. SACOME recommends that InfrastructureSA, with the assistance of suitable bodies, such as the Freight and Supply Chain Consultative Committee, be tasked with developing policies that strengthen South Australia's rail network, including the consideration of rail freight incentives.
6. SACOME recommends that the South Australian Government develop a Critical Minerals to Metals Strategy to capture the full value of our resources, with Government to consider supports for the development of processing hubs.
7. SACOME recommends the establishment of a Taskforce comprising representation from business experts, universities and other suitable persons to provide high-level and holistic advice to Government as to how to support CPS, define its potential value to the South Australian economy, and assess how it could be used across Government and the private sector to drive green industry growth.

8. Consideration should be given to appropriate funding supports for the construction of a CO₂ pipeline from Port Bonython to Moomba to facilitate the storage of international carbon.
9. SACOME recommends that consideration is given to the broader civic infrastructure requirements of the green industrial transformation to inform 'whole of supply chain' infrastructure planning.

13 November 2023

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Submission: 20 Year State Infrastructure Strategy – Discussion Paper

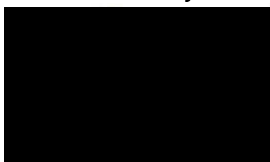
The Tourism Industry Council South Australia (TiCSA) is the peak body for South Australia's tourism industry. We are a not-for-profit, member-based organisation representing more than 1,100 tourism businesses across the state. Our members reflect the full spectrum of the tourism industry and range from micro business through to SMEs and large, multinational chains. TiCSA's purpose is to advocate for, engage with and strengthen businesses to grow South Australia's visitor economy.

TiCSA welcomes the opportunity to provide a submission in response to the above consultation. The success and growth of our state's visitor economy is very much dependent on both public and private infrastructure investment. It is critical that our government continues to invest in core public and enabling infrastructure such as our roads, sea and airports, modern telecommunications and digital connectivity, right across the state.

However, we would advocate that the top priority for this new plan, is to address the cost of doing business that is stifling investment in this state. There is a lot of investment that could be happening across South Australia, but the proponents are finding it too challenging. The cost of development in our regions is considerably higher than in metro Adelaide – this is the cost of inputs, labour etc. However, critically, it is also the cost of finance – financial institutions capitalise investment in regions differently to a development in the city which is having a significant negative effect on the viability of projects. Additionally, the additional costs that are being passed onto operators to upgrade power, gas and water infrastructure is untenable in many cases. We urge the government to consider different ways for these costs to be spread across multiple beneficiaries, not just the one business whose development “triggers” the need for this aging infrastructure to be upgraded. We stress that the role of government is not just to invest in public and enabling infrastructure, but also to break down the barriers to private investment.

It is important that, in considering ‘tourism’ in the development of the Infrastructure Strategy, that you do not limit your definition of tourism to simply leisure travel. Tourism in South Australia also incorporates business events and international students – both of which are big business for our state. In designing public infrastructure, it is important that the government doesn't just look at it through the lens of how it will impact locals, but the broad reach for anyone who travels to and around South Australia every day of the year.

Yours sincerely



Shaun de Bruyn

Chief Executive Officer

Tourism Industry Council South Australia

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13th November 2023

RE: 20-Year State Infrastructure Strategy Discussion Paper

About the UDIA

The Urban Development Institute of Australia (UDIA) has been active in South Australia since 1971 and has over one hundred and fifty member companies.

Many imminently qualified members of the UDIA are involved through policy development on committees, professional development, event attendance as well as other activities, all aimed at improving the outcomes for our sector and State.

It is through these members that UDIA provides an important voice on development matters, particularly in relation to initiatives for homebuyers, urban developers, professionals and others who are involved in the sector.

UDIA's Response to the 20-Year State Infrastructure Strategy Discussion Paper

Thank you for the opportunity for the UDIA to provide feedback in response to the 20-Year State Infrastructure Strategy (the Strategy) Discussion Paper.

It is notable that the Strategy Discussion Paper has been released contemporaneously with the Greater Adelaide Regional Plan (the GARP) Discussion Paper (Attached to this submission). This suggests the interest of Government to better align urban development with the provision of infrastructure required to facilitate urban growth. This should always be a key consideration, but is of particular importance at present as the state is in the midst of a Housing Affordability Crisis and the provision of infrastructure is key to unlocking the housing supply much needed to respond to the crisis.

The greater alignment between urban development and infrastructure reflects a positive response to previous UDIA submissions to Government that had noted an omission of the urban development sector within the 2019 Strategy Discussion Paper. The inclusion of

section six *Liveable and well-planned places* within this discussion paper is a start in the process of recognising the importance of urban development as a key consideration for the state's infrastructure needs. So too is the interest of Infrastructure South Australia (ISA) in meeting with the UDIA and continuing a constructive dialogue in relation to infrastructure as it relates to urban development.

However, considering the central place of the need for housing supply and urban development to the growth of the state and the Government's ambitious growth agenda, there is still a need for housing infrastructure to be recognised as a central focus of ISA. The 2023 ISA Capital Intentions Statement does not include a reference to the Housing sector beyond the infrastructure projects of the South Australian Housing Authority. The investment of the Government in enabling infrastructure that can leverage private sector investment in the Housing sector is far more critical to the delivery of housing supply to South Australia.

We reiterate the previous UDIA calls in our grow.reform.build 2022 State Election Priorities advocacy document (included within the GARP submission attached to this submission) for the ISA charter to include an increased focus on urban development, recognising its relevance to the state's economy and, crucially, to consider a suite of infrastructure projects directly aimed at unlocking identified areas for growth.

The co-ordination of infrastructure for good urban development is imperative to the overall well-being of a community. Whether it is through the coordination of open space, transportation links, reliable and affordable services, just to name a few.

This submission to the Strategy Discussion Paper is intended to be considered in concert with the UDIA's GARP Discussion Paper submission which is attached to this submission for reference.

Learning from the mistakes of many other cities who now struggle under the pressure of significant population growth, we believe that it is imperative that as Adelaide grows, there is a long-term co-ordinated approach for the planning and delivery of this key infrastructure. While undoubtedly there is the requirement to continually invest more funding, there is also much scope for increased benefit through better coordination and the leveraging of existing investment. This includes the better coordination of private and public partnerships and where appropriate, the use of schemes.

To be clear, the use of schemes should not be seen by Government as an opportunity to impose a new charge or create a new revenue stream without simultaneously removing or offsetting other existing charges. Schemes should be focused on delivering efficiencies and can promote better coordination, avoid punishing first movers, and can allow the Government to invest with certainty. The UDIA strongly opposes any moves to use schemes as an additional revenue source. The UDIA submission to Government on the Mt Barker Developer Deed Review undertaken by Deloitte remains relevant to our position on schemes and can be provided to ISA if required.

It remains true that ISA is an important body, who, together with the State Planning Commission, can ensure the appropriate policy levers and infrastructure coordination strategies are in place to encourage further growth and a better quality of life for South Australians. Additionally, the UDIA has previously advocated for the creation of a Housing Infrastructure Planning and Development Unit (HIPDU) and we commend the Government's action to create this unit. However, the UDIA's recommendations to empower this unit to

resolve blockages and assist in planning for the infrastructure needed for growth of housing supply, should not be seen as removing or diminishing any responsibility from ISA for infrastructure planning and delivery. The important role ISA plays in the statewide coordination of infrastructure makes it important that ISA works with HIPDU, but the importance of the \$8.9 billion construction and urban development sector makes it incumbent on ISA to plan for and facilitate the delivery of enabling infrastructure to support this critical sector.

The UDIA advocates for greater consideration of the 'missing middle' of infrastructure as detailed in our grow.reform.build advocacy agenda. With much needed growth occurring throughout Greater Adelaide, there needs to be a full understanding of the existing infrastructure capacities in developed areas and a plan for how this existing infrastructure can be replaced when upgrades are required. In new development areas currently, developers fund and build vast amounts of infrastructure, while state and local government infrastructure such as connecting roads and school are frequently lagging – often not built until there is a public outcry.

Along these lines, the statement on page 21 of the Strategy Discussion Paper that the 2010 rezoning of land at Mount Barker was especially problematic due to inadequate infrastructure planning is a furphy. The rezoning in Mount Barker has played a critical role in the supply of housing in Greater Adelaide. Mount Barker has delivered significant growth, and the market has voted with its feet with significant demand for the housing being provided in the area. In the absence of Mount Barker, the impacts on growth and affordability for housing in Adelaide would have been significant.

The challenge faced by Mount Barker are similar to the challenges faced by growth in many locations across Adelaide. Growth leads to the need for additional infrastructure. What Mount Barker needs now is similar to what is needed in other locations across Greater Adelaide. In the past 110 days, the Government has announced \$175 million of investment in two intersection upgrades in the inner west. This demonstrates the recognised need to continue to upgrade existing infrastructure to maintain liveability and a well-functioning city. While the UDIA understands and support the analysis of new infrastructure, it is important that this is not the only focus.

This infrastructure challenge is the previously mentioned missing middle of infrastructure. While the need for major new infrastructure is readily understood and the challenges related to funding this infrastructure must be overcome, there is also a need to not neglect the infrastructure in existing areas that supports growth by joining suburbs and communities and to recognise the state's role in funding this infrastructure.

A greater understanding the capacity of existing infrastructure throughout Greater Adelaide will also inform a full understanding of the funding required to upgrade existing infrastructure as growth occurs. The need for this complete understanding of infrastructure funding requirements is illustrated by a six case study comparison undertaken by ISA that generated a technical note referred to in the GARP Discussion Paper. The UDIA has undertaken to provide additional data to better inform ISA's analysis and this will be provided shortly.

Understanding the full scope of costs and being able to make full and fair comparison of the relative costs of housing development is important as infrastructure costs are a key factor in housing affordability. As such, it is concerning that the GARP Discussion Paper produced a costs comparison table that was not comparing developments of a similar type in different

locations, but instead appeared to be attempting to engineer a particular outcome. Understanding relative infrastructure costs is far too important for the comparisons of 1-3 bedrooms developments in one location to be implied as equivalent to 3-4 bedrooms in different locations.

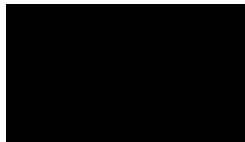
Furthermore, the costs excluded from the comparison include demolition works and environmental issues, in particular contamination, that in the words of the technical note "are likely to be more prevalent in inner area locations and projects." While these costs are excluded, civil works, including all roads and stormwater within, and intersecting with, the development area, as well as earthworks, lot benching and retaining walls for lots are included in the table and can represent one of the largest costs for developers. Once again, this choice to include costs for civil works skews the comparison in favour of infill over greenfield development.

Infill development taps in to existing suburban infrastructure. When this growth occurs, it relies on existing capacity within the system, however what is clear from the previously quoted road upgrade projects is that this growth too requires infrastructure upgrades. It appears that these upgrades and their related cost have not been factored in to works programs and comparative costings.

The present Housing Affordability Crisis means we need to be supporting all kinds of development in locations throughout Greater Adelaide. The need for efficient development requires a full understanding of all relevant infrastructure costs.

Once again thank you for the opportunity to comment on the discussion paper. The UDIA will be in contact to discuss the above matters and more. We look forward to further engagement with Infrastructure SA in the future.

Yours sincerely



Liam Golding
CHIEF EXECUTIVE

UDIA Greater Adelaide Regional Plan Discussion Paper Submission

The Urban Development Institute of Australia South Australian Division (UDIA) acknowledges the extensive time and work that has gone into the preparation of the Greater Adelaide Regional Plan (GARP) Discussion Paper. The UDIA is pleased to provide this submission to support the drafting of the GARP.

This Discussion Paper has been released at a critical time in the State's history, which is in the midst of a housing affordability crisis. It has been regularly acknowledged that the solution to the crisis is to increase the supply of housing. State and Federal Government targets for housing construction over the short term aim to increase housing in South Australia by an annual amount well above our historical average. This is strongly supported by the UDIA.

The State Government also has an ambitious economic growth agenda featuring the creation of new and expansion of existing employment generating industries and transformational infrastructure builds. This agenda, combined with positive housing targets highlight the acute need to plan for the growth of the State. The UDIA supports a robust and well-informed growth strategy.

As the premier development industry representative body in South Australia for over 50 years, the UDIA has a strong history of advocacy and policy reform in the State. We see the following as critical areas for the GARP and provide relevant recommendations in the following sections:

1. Land Supply - Greenfield
2. Land Supply - Infill
3. Infrastructure
4. Skills shortage

We also highlight the need for an approach in a thirty-year plan that includes a longer-term vision for the Greater Adelaide Region past this time horizon. Delivery of housing along with supporting infrastructure and social planning has a lifespan beyond thirty years and it seems natural to assume that future growth will be required beyond the scope of the GARP and long into the future. Through robust forward planning, South Australia will be in the best position to retain residents and build on the State's already strong economy and liveability.

1. Land Supply – Greenfield Development

The solution to the current Housing Affordability Crisis we face (as freely acknowledged by Government) is to increase land supply.¹ Therefore, it is concerning to the development industry that there is such a strong assertion that there is currently a 15-year land supply and as such the Greater Adelaide Regional Plan review does not need to consider transformational changes.

¹ ABC News – 16 August 2023: <https://www.abc.net.au/listen/programs/radionational-breakfast/sa-premier-national-cabinet-housing-supply-renting/102733254>;

South Australian Government – 17 August 2023: <https://www.premier.sa.gov.au/media-releases/news-items/sa-well-placed-to-capitalise-on-national-cabinet-housing-agreement>

The UDIA remains committed to ensuring there is a pipeline of development-ready land and has concerns relating to inadequacies in existing land supply measurements. We have previously raised concerns in relation to how land supply is calculated. Whilst it is acknowledged some improvements have been made in this regard, the UDIA questions the accuracy within the Discussion Paper that '15 years supply is currently available.' Whilst there may be land that is already zoned for residential development in Greater Adelaide, we understand that much of this land is not currently development-ready (i.e. does not have connection to critical infrastructure required to accommodate housing).

The UDIA remains concerned that the methodology used to determine land supply fails to factor in constraints and contingencies that limit land readiness. It is also critical that land supply is distributed across the region and not dependent on a small number of sub-regions, so that new home buyers are not forced to be displaced from their existing communities.

The UDIA is also concerned that the estimated land supply includes land which has servicing challenges, and is also skewed by the assumed supply to be delivered from single large estates (i.e. Riverlea, Dry Creek and Concordia). The reality is land which in essence is controlled by a single developer has a practical delivery constraint with projects of such a nature likely to take 20 years or more to deliver. The issue therefore is that the 15-year rolling land supply targets (in respect to actual land able to be delivered to the market) are not currently being met and will continue to not be met into the future. At present demand is outstripping supply and this is clearly demonstrated by rising housing prices and housing affordability falling to crisis levels.

In addition to land supply, the need for housing choices and diversity is greater now than ever before as evidenced by the data on changing household demographics. The GARP Discussion Paper projects a need to supply 300,000 new homes, a 46% increase in population as well as an anticipated 78% increase in single person households. The UDIA is concerned that without a proactive policy environment the required land supply to meet even these needs will not be met, let alone the land supply required following the announcement of new Federal Government housing supply targets.

Putting issues with land supply methodology aside for a moment, the housing supply targets within the GARP, independent of the land required to deliver them, appear to have already been superseded.

At National Cabinet in August, a target of 1.2 million homes to be built over the next 5 years was set as *"all governments recognise(d) the best way to ensure more Australians have a safe and affordable place to call home is to boost housing supply."*²

Based on South Australia's per capita share, the HIA has estimated this equates to 80,000 homes over that period, which will require construction of 16,000 new homes every year to meet that target. This compares to 300,000 new homes over 30 years in the GARP discussion paper, which equates to 10,000 new homes every year, indicating that even since the release of the GARP Discussion Paper there has been an increase in short term supply goals of over 50%.

² Australian Government – 16 August 2023: <https://www.pm.gov.au/media/meeting-national-cabinet-working-together-deliver-better-housing-outcomes>

Historical averages of annual housing supply range between 9,000 and 12,000 homes per annum, comprised of a mix of detached houses, townhouses, and apartment developments. Detached homes make up the overwhelming majority of this supply, accounting for between 7,000 and 9,000 per annum over the last 30 years.

This means meeting the Federal Government target agreed at National Cabinet will require several thousand additional homes annually over what has been delivered in the past and an increase in delivery of housing beyond what is described as envisaged in the GARP Discussion Paper. In order for South Australia to deliver several thousand more homes (over and above historical averages and current rates) every year for each for the next 5 years to meet its share of the target, land will need to become available in far greater quantities - and in accelerated time frames - than what is currently envisaged.

To emphasise, the GARP forecasts South Australia will require 300,000 additional homes over the 30-year period. With 80,000 required in the first 5 years, clearly the GARP forecast will fall well short of what is required. It is an uncontroversial fact that there is nowhere near enough land available inside the Urban Growth Boundary, or proposed in the current GARP, to enable delivery of these homes.

This shows the need for the Government to have increased capacity to respond to trends, challenges, and opportunities via more frequent reviews. Previous UDIA submissions to Government have highlighted the requirement in Schedule 4(1) and section 7 of the *Planning, Development and Infrastructure Act (PDI)* 2016 that obliges the State Planning Commission to review land supply at least once every five (5) years. We believe the five-year review period is too infrequent.

Consistently the UDIA has asserted that land supply issues combined with changing economic circumstances have caused a housing affordability crisis and these factors make the timeframe for reviews more urgent. Land supply and "development ready" land reports do not adequately factor in critical delivery elements such as infrastructure delivery, approval process delays and the political decision-making process.

These issues were highlighted in the UDIA submission to the Expert Panel coordinating the Planning System Implementation Review (see Appendix B). These items have not been responded to at this time and addressing these issues will be critical to ensuring the GARP review produces outcomes that will support Adelaide's growth over the next 30 years.

The GARP discussion paper highlights that the vast majority of growth areas for housing are identified in the 'outer north' of Greater Adelaide (Figure 1). The lack of a spatial distribution of land supply is highly problematic. The residential housing market in Adelaide is not homogenous and requires different product types, different geographic locations, and different price points to satisfy a cross-section of purchasers.

The Discussion Paper has earmarked the majority of greenfield land supply in the 'outer north' region and within 'satellite cities'. Whilst greenfield development in these areas is encouraged, the UDIA questions the spatial distribution of land supply and housing across Greater Adelaide.

There appears to be no greenfield developments envisaged within the 'outer south' region beyond the land already rezoned at Hackham and Aldinga. In a High Growth scenario, it is likely there will be increased pressure on housing supply and affordability in the 'outer south' region. It is therefore sought that further development south of Aldinga and of Sellicks Beach and consideration of long-term supply (e.g. Bowering Hill) should be incorporated into the Greater Adelaide Regional Plan.

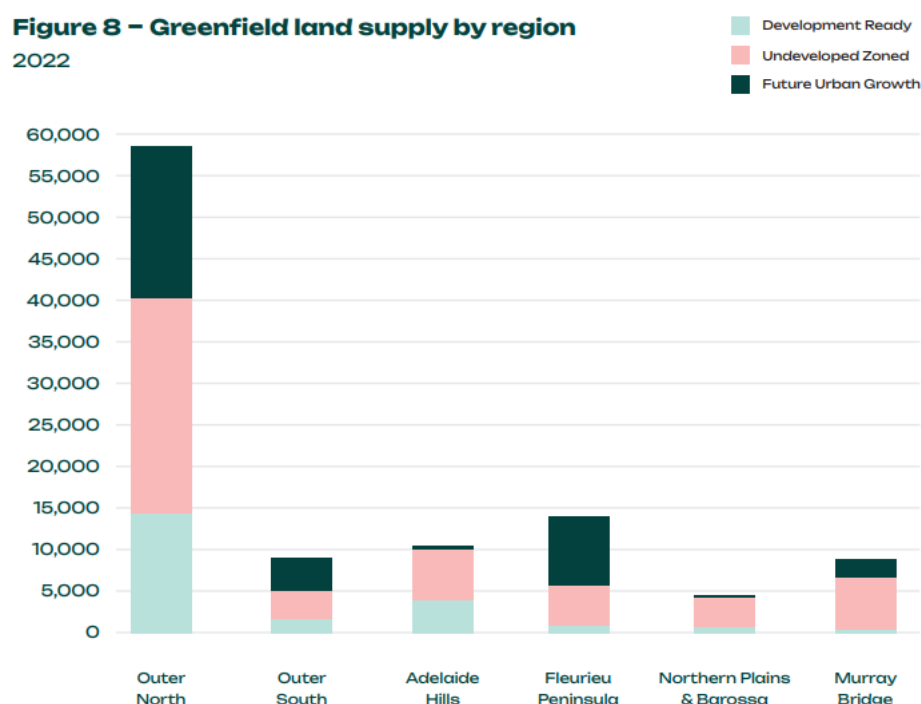


Figure 1: Greenfield Land Supply by Region
Source: SA Government, GARP Discussion Paper

In the past, the simple response to the need for additional land for development in all sub-markets throughout Adelaide – essentially anywhere other than the 'outer north' – has been to place it in the too-hard basket. However, these reasons are largely historical and in appropriate locations there is community support for consideration of land that has long been locked up.

The most recent review of the Hills Face Zone was announced by the then Minister for Urban Development and Planning in October 2002. With no formal process for review, ad hoc approaches have been made seeking to change the Hills Face Zone boundary over the last 10-15 years. However, as far as we are aware, these proposals have been unsuccessful. In appropriate locations with a set of defined criteria, land in this zone may contribute to meeting the 15-year land supply targets at a sub-market level.

The UDIA is aware of community support for a fresh consideration of Hills Face Zone boundaries and amendments in other locations in the Environment and Food Production Area (EFPA). This includes from the industry association AUSVEG SA who note the blunt instrument that is the legislation does not necessarily support the goals of all the industry.

With the challenges of identifying land for development across Greater Adelaide, it is important that this review does not instantly discount land merely because it has not been considered for an extended period of time. By its actions so far, the Government has shown it understands the need for land supply is urgent.

Previous UDIA submissions have called for a land supply dashboard and such a dashboard would support analysis of sub-markets in Adelaide. The Government is to be congratulated for accepting this recommendation and is developing the dashboard. It has been announced previously that the dashboard will be launched in the 2023/24 financial year.³ In addition to taking a different approach to land supply to recognise the importance of these sub-markets and establishing land supply pipelines to support these markets, the UDIA also calls for the Land Supply Dashboard to be released as a matter of urgency. The release of this dashboard will improve transparency and support development activity with timely and accessible data.

The UDIA would welcome more detailed land supply modelling that demonstrates how and when land will be available for intended development. The State Government is encouraged to consider infrastructure planning in conjunction with the GARP to ensure infrastructure that supports land availability is delivered in a timely, coordinated, and equitable way.

The UDIA recommends that existing land supply reports be more specific and transparent regarding the availability of 'development ready' land. For example, by mapping land that is currently available for development, land that will be ready in 2 years, ready in 2-4 years, ready in 5+ years etc and identifying what is needed by way of infrastructure or strategic planning to deliver the land.

With the need for an additional 300,000 homes and land to supply these homes the UDIA supports a strategic planning outcome that will support and facilitate the delivery of land for residential growth.

While some action has been taken at the start of this year with the Government's land release as part of its Better Housing Future policy, the land release has not yet led to improved housing affordability. The reasons for this are clearly related to the work that remains to be done to convert this identified land into land that can actually have houses built upon it.

The UDIA recommends adding a serviceability lens to the Land Supply Dashboard as this will provide a more complete picture of what land is indeed contributing to the important competitive market tension that drives housing affordability.

This leads to the industry's position that there is not an actual 15-year *market ready* supply of land. The consequence of this lack of a 15-year market ready supply of land is the current Housing Affordability Crisis. The critical importance of the 15-year rolling land supply is that it is fundamentally linked to legislative requirements for the identification of further land for growth through the EFPA.

Given the time it takes to get land to market through rezoning and infrastructure processes, adding the political element of legislative change or land identification through quinquennial reviews threatens significant delays to the release of land that threaten a functioning land supply pipeline. We strongly encourage the Government to reconsider the 15-year test. The current infrastructure crisis that is threatening development in the outer north of Greater

³ https://plan.sa.gov.au/state_snapshot/better-housing-future/land-supply-dashboard

Adelaide strongly suggests that a longer time horizon is needed as SA Water funding is also constrained by the Essential Services Commission of South Australia (ESCOSA) process that also occurs too infrequently. This will be considered in further detail later in this submission.

A substantial amount of information on this matter is included in the UDIA submission to the State Planning Commission on the review of the EFPA (see Appendix C). It is noted that elements of this review were addressed by the Government and that this resulted in the Land Supply Methodology review in August 2022. We applaud the Government for this review and hope that further consideration will be given to the outstanding matters.

2. Land Supply - Infill

With an acute need for the urgent provision of housing, opportunities for delivery of a range of housing types within existing urban boundaries must also be investigated, supported, and promoted. Furthermore, reforms that support the GARP to enable the free functioning of the market and the capacity for people to better match their housing to their circumstances should be considered, particularly further stamp duty relief as the UDIA has previously called for in the grow.reform.build paper (see Appendix A). The Government's 2023/14 State Budget recognised the value of Stamp Duty reform in delivering improved housing outcomes and further reform of this regressive tax should follow.

Opportunities to identify and unlock land supply for infill development rely more on setting of targets and creation of an authorising environment which is more conducive to growth, rather than the identification of suitable land to facilitate greenfield development. The underpinning need for more housing is, however, consistent for both forms of development. As such, this section will focus more on the elements of targets and types of infill development.

Central Business District Population Targets

The projected population targets for the CBD are bold and will need progressive and forward-thinking initiatives to be realised. A bigger capital city can further the revitalisation of the heart of the Greater Adelaide region and is a necessary step to drive Adelaide as a global city and a great place to live and work. The ambition for a more densely populated city centre and the many benefits this additional population can bring to the city itself as well as the broader metropolitan area is supported.

Strategic and General Infill

The UDIA notes there is a focus on strategic and general infill sites in the Greater Adelaide region. The UDIA is strongly supportive of strategic infill and firmly believes strategic infill should be the Government's preferred form of infill development and should facilitate a system which reflects and promotes strategic over general.

More should be done by the State Government to effectively allow for strategic master planning in the inner metropolitan suburbs to support growth. This will allow for development to be delivered efficiently providing greater certainty for both developers and those in need of housing.

The UDIA is generally supportive of increased height provisions, especially in those areas such as Urban Corridor Zones and Strategic Infill sites. The UDIA acknowledges and

promotes the need for increased density in the inner metropolitan area of Greater Adelaide, in particular through increased height and density.

As a general statement in terms of both infill and greenfield development, diversity in housing choice needs to be supported, with diversity including:

- Housing type and size;
- Housing options allowing for a range of demographics and abilities in the same area;
- Housing for aging allowing downsizing in the same suburb; and
- Affordable housing options, including build to rent housing typologies.

The UDIA is supportive of development in the land surrounding the parklands and incentives to encourage development in this area. The UDIA are also supportive of strategic infill on a smaller scale to allow for better planning outcomes on repurposed sites. Further conversation is needed about how to unlock medium to higher density projects in appropriate areas.

3. Infrastructure

Infrastructure provision is fundamental to achieving the urban growth anticipated in the Discussion Paper whether it is in greenfield or infill areas. As such, infrastructure planning and delivery must be a key focus for the State. Critically, the industry and community require certainty that key infrastructure will be delivered in a timely, coordinated, and equitable manner. With the housing affordability crisis and lack of both social and affordable housing, the community and industry need certainty that key infrastructure will be built to enable the completion of these much-needed developments.

Clarity on the strategy for infrastructure delivery is required to provide developers with certainty to plan and invest in new development. Without this certainty, the State is at risk of losing key strategic development projects.

Previous UDIA submissions have highlighted that all of society benefits from new infrastructure. Even those far away from a new piece of major transport infrastructure may indirectly benefit, while those living, working, or investing in close proximity benefit both directly and indirectly.

The current challenges facing the state are the consequences of early identification and adequate scoping of urban infrastructure that has been lacking for an extended period of time. Our previous recommendation to address this, that a single designated authority be tasked with the early planning and scoping of urban infrastructure for growth areas, has been recognised by Government with the recent establishment of the Housing Infrastructure Planning and Development Unit (HIPDU). We welcome Government taking this action and we hope to see this unit forcing Government agencies to coordinate and act on the urgent infrastructure needs facing our state.

Systemic issues still exist however with the ESCOSA quadrennial review of SA Water charging. This creates a structural constraint on growth infrastructure expenditure. Additionally, ESCOSA places significant prioritisation on existing SA Water customers over adequately providing for growth. The infrastructure provision crisis in the 'outer north' of metropolitan Adelaide makes clear that the current arrangements must be changed. A

funding process that has greater focus on the necessity of growth and flexibility to respond to changing conditions is essential to resolving some of the issues with SA Water infrastructure provision.

It is notable that the current GARP review is occurring along a similar timeframe to the South Australia 20-Year State Infrastructure Strategy Discussion Paper. It is encouraging in that it is hoped there will be integration between land use planning and infrastructure planning. In order to make this a success, the UDIA recommends Government explicitly allocate responsibility for this integration and coordination to a single agency and a single Minister.

Beyond being required to enable the orderly development of land for housing, infrastructure planning also plays a key role in efficient development and is also a key factor in housing affordability. As such, it is concerning that the GARP Discussion Paper produces an infrastructure costs comparison table that was not comparing developments of a similar type in different locations, but instead appeared to be attempting to engineer a particular outcome. Understanding relative infrastructure costs is far too important for the comparisons of 1-3 bedrooms developments in one location to be implied as equivalent to 3-4 bedrooms in different locations.

Furthermore, the costs excluded from the comparison include demolition works and environmental issues, in particular contamination, that in the words of the Infrastructure SA note “are likely to be more prevalent in inner area locations and projects.” While these costs are excluded, civil works, including all roads and stormwater within, and intersecting with, the development area, as well as earthworks, lot benching and retaining walls for lots are included in the table and can represent one of the largest costs for developers. Once again, this choice to include costs for civil works skews the comparison in favour of infill over greenfield development.

With principle 7 of the Commissions considerations for identifying land for housing and jobs being *“Identification and prioritisation of growth areas will be based on the transparency of costs to community (infrastructure provision, housing cost, ongoing living costs, climate change resilience costs) for differing forms of supply,”* it is essential that this transparency is based on equal considerations. It is also important that the State’s responsibility for trunk infrastructure is identified in advance, planned for, and funded.

Returning to the Land Supply Dashboard, transparency of infrastructure plans and an integration of these plans into the Land Supply Dashboard can aid the appropriate identification of sufficient land that is developable and can support the needs of the State.

Finally, infrastructure should be delivered to underpin a market driven efficient urban form. This will support development in all areas of Greater Adelaide and will support the sub-market considerations outlined in the land supply section. This will move Adelaide beyond the simplistic ratio targets of development that have not served our state well as they have led to the current Housing Affordability Crisis.

4. Skills Shortage

The UDIA is aware of a skills shortage in South Australia, with the surveying course only recently being reintroduced to Flinders University, no undergraduate planning degree in South Australia and a known shortage of skilled workers across the industry including builders, engineers, planners, and lawyers. Without an appropriately skilled workforce the growth aspirations in the GARP will not be deliverable.

The UDIA calls for additional funding by the State Government being made towards the retention of key industry staff and retention of our young people, making South Australia a more attractive place to live and work, and the establishment and promotion of tertiary courses to deliver the skills needed.

Employment

The UDIA supports the creation of thriving communities, with employment opportunities being a key focus of this. With the creation of jobs and the notion of 'living locally' comes the creation and retention of employment land. We would like to see the appropriate retention and creation of employment land throughout Greater Adelaide and the Adelaide CBD. This means an appropriate mix of zoned land throughout, with care taken to protect strategically valuable employment land from rezoning.

We are also interested in greater clarity regarding the smarter and cleaner economy and related jobs for the state mentioned in the Discussion Paper. With the biggest sectors for future employment outside of the construction industry including:

- Defence;
- Education;
- Primary production;
- Clean energy;
- Space;
- Resources; and
- Health (medical and biotechnology).

We hope that the vision for the economy considers the employment needs of future residents of Greater Adelaide.

Conclusion

Proper planning for growth gives the State the greatest opportunity to deliver a built form that meets the needs of South Australians over the coming thirty years. There is an urgency to deliver this growth that has not previously been common to South Australia with plans and targets that, if met, will set up the State to thrive. The future of our State needs the Government to rise above the old NIMBY arguments that until now have far too often derailed projects that have strategic planning merit. The scale of the challenge calls for the highest levels of conviction and leadership.

That is why the UDIA is focused on highlighting the need for additional land supply (in the short and long term) supported by infrastructure (hard and soft) to support growth and create thriving communities. While it may be easier to project growth and land consumption rates that avoid difficult debates about the nature and location of future developments, the Discussion Paper provides the right platform to have this important discussion with all South Australians. We look forward to an outcome that matches the State's ambition for the future of the South Australia.

APPENDICIES

Appendix A – grow.reform.build - UDIA 2022 State Election Priorities

Appendix B – UDIA Submission - Planning System Implementation Review 2022

Appendix C – UDIA Submission – Environment and Food Production Areas Review 2021



grow.reform.build.

URBAN DEVELOPMENT INSTITUTE OF AUSTRALIA (SA)

2022 State Election Priorities

URBAN DEVELOPMENT INSTITUTE OF AUSTRALIA (SA)

2022 State Election Priorities

For more information about the Urban Development Institute of Australia (SA) 2022 State Election Priorities, please contact:

Pat Gerace, Chief Executive
udiasa@udiasa.com.au

Find more information about the UDIA (SA) and our advocacy work on our website udiasa.com.au





Reade's Plan for Morlock Park 1917.

South Australia's rich history of planning extends far beyond just the City of Adelaide.

In 1916, Charles Reade was employed as South Australia's (and Australia's) first Government Town Planner.

Shortly following his appointment in 1917, he designed a new suburb with the working title 'Mitcham Garden Suburb'. His plans were shown publicly and for the first time at the first Town Planning and Housing Conference and Exhibition in Adelaide in October 1917.

We now know this suburb as Colonel Light Gardens.

URBAN DEVELOPMENT INSTITUTE OF AUSTRALIA (SA)

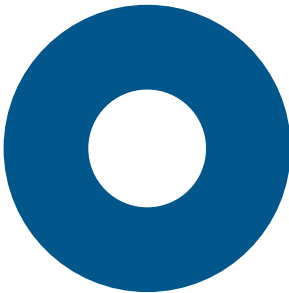
2022 State Election Priorities



grow

Address the housing crisis.

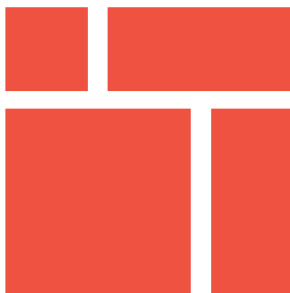
Modern planning for growth and liveability.



reform

Transparency and accountability for home buyer levies and taxes.

Invest funds collected for open space on open space.



build

Better and more community infrastructure.

Stop taxing production of housing.

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Message from the President

For 50 years, members of the Urban Development Institute of Australia (SA) have passionately contributed to the success of our great state.

They have created employment for tens of thousands of South Australians and built places that we call home.

As passionate as our members are, increasingly as they risk their livelihoods, more and more regulatory and financial obstacles continue to be put in place that prevent them from delivering more of the great Australian dream.

UDIA members know that we must protect our liveable city — but that there is a better way.

We need better planning and growth strategies for our city, our existing taxes and contributions need to be better spent, and we urgently need more clear and transparent policy making based on better data. Above all we need a more collaborative approach.

A new or returned State Government must work alongside us so we can help create the conditions that support development. One where we return the pendulum back to place so more of us can invest with confidence and create the new communities we so desperately need.

When our members are active, the economic heartbeat of the state is stronger.

Our blueprint for prosperity, **Grow, Reform, Build** has been developed to serve as a guide to turbo charge the positive change that will enable our state to maintain liveability for the benefit of all South Australians — now and into the future.

On behalf of the UDIA, we look forward to working side by side with the future State Government for the benefit of all South Australians.

Daniel Palumbo
President



Message from the Chief Executive

In the lead up to the 2022 South Australian State Election, the UDIA SA is calling on all political parties and candidates to focus on maximising South Australia's opportunities as an attractive place to live, work and invest, to enable our communities to prosper.

To strengthen and diversify our economy, the incoming government must fully leverage what our state can offer the people who live here and those who are considering business here, travelling here or relocating here in the coming years.

To maximise South Australia's opportunities as the ideal place to live, work and invest, UDIA SA has developed key recommendations built around three key pillars — **Grow, Reform and Build.**

Our recommendations are designed to ensure that South Australia's urban development industry can continue to prosper and play a key role in the continued success and growth of our state for the benefit of all South Australians.

Not only is the urban development industry a significant employer, representing the second highest number of fulltime workers (77,200 employed) in South Australia and \$7.8 billion in gross value added to the economy, but our industry facilitates and supports the delivery of high-quality urban infrastructure critical to providing all South Australians with the opportunity to succeed.

We want to work together with the incoming government to harness our state's unique and positive characteristics and build on our reputation not only as Australia's most liveable city and the world's third, but as the best place to live, work and invest.

Pat Gerace
Chief Executive

About the Urban Development Institute of Australia (SA)

The Urban Development Institute of Australia (SA) was established in 1971 and is the leading representative body for the urban development industry.

With representation nationwide, we work for the benefit of the South Australian industry and alongside other State and Territory divisions to advocate for meaningful policy reform locally and nationally.

The UDIA in South Australia is a not-for-profit membership organisation. Our members that we represent includes all organisations and people involved in the development of homes, infrastructure and suburbs — the foundation of our current and future communities.

We exist to support the urban development industry — South Australia's third largest employing sector with the second highest number of fulltime workers, boasting more than 77,000 full time employees across the state.¹

Our purpose is to represent the views, wants and needs of those within our sector — and equally those of their customers who are everyday South Australian homeowners, aspiring home buyers, renters and our most vulnerable residents, including those eligible for social and affordable housing.

We work to promote excellence and innovation in the creation of sustainable and thriving communities, as well as educate and engage with the government and urban development sector on all issues affecting new residential property, particularly pertaining to affordability and liveability.

Our valued members benefit from exclusive access to a range of purposeful policy updates and relevant advocacy information that are pertinent to the development industry, professional learning and development opportunities, and insightful events that connect, engage and build networks.

Ultimately, everything we do is to ensure a thriving urban development sector in South Australia — for businesses, for people, for communities and for our future.

1. <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/latest-release>



Introduction

A solid foundation for success

As South Australians we are parochial about our great state. Among the many things we treasure about our place is that it is a great place to work, live and play.

Successive South Australians have called the suburbs of Adelaide home; a place where they have raised families and enjoyed a quality of life that is the envy of others both interstate and abroad.

Much of this is possible thanks to generations of South Australians who have invested in growing our state and economy, planning and building infrastructure so that every future generation has the best foundations to create their own success.

It's not surprising that many political leaders like to highlight Adelaide's high liveability rankings or quote median house prices in South Australia to demonstrate the great work they are doing.²

Unfortunately, while spin and social media are used to promote South Australia, our leaders rarely talk in detail about what they are doing to protect everything we hold so dear about our state. Liveability is a term they frequently reference, yet most are reluctant to specifically define it.

We know that as much as work, live and play are important, it's also the balance between these that makes a place emphatically liveable. Finding this balance is why the UDIA has developed Grow Reform Build — South Australia's 2022 State Election blueprint for prosperity.

Commitment from the urban development sector

The UDIA represents the property development sector and all within it — the South Australians who are proud to build new suburbs, the buildings that people call home, and all the surrounding infrastructure that lay the foundations for these places to become thriving communities.

Our members sell to, build for and employ South Australians, knowing as well as anyone what they value most. South Australians want suburbs with open space, trees and high-quality public realm. They value ready access to services such as transport, education and health facilities.

With the combined strength of our members, we know what is needed to protect our state's liveability.

Our plan to grow, reform and build

As a membership body we are uniquely placed to see and experience first-hand what South Australian's value most about the places they live.

We also see and experience each of the different and competing interests of policy makers, agencies and levels of government, and how they are often at odds with each other.

From a state-wide perspective, we see that without necessary and thorough planning, development can adversely change the character of our existing suburbs and streets.

We see the impacts of a lack of investment in public transport, roads and trunk infrastructure and how this neglect can easily lead to the same congestion and 'growing pains' being witnessed interstate.

That is why we are calling for vastly improved and more detailed planning, based on better data and an understanding of what people need and value, rather than telling them what they want.

UDIA believes that a key focus for our state now and into the future should be that South Australia continues to be undoubtedly the place where you can still achieve the great Australian dream.

Home ownership means different things to different people — for some it is in a compact denser neighbourhood or apartment, for others it is a place where you can have a trampoline, trailer and a dog.

For those that can't afford to invest in purchasing a home, the certainty that comes with knowing a place to rent is affordable and available, in an area that they are attached to or familiar with, can make a significant difference.

We know that a place to call home offers undeniable sense of safety, security and stability — a fundamental human need as defined in Maslow's Hierarchy of Needs, and is a proven pathway to intergenerational prosperity.³

This is why we are calling for a renewed and dedicated focus on home ownership.

Unfortunately, there are a broad range of government policies that do not consider the impact on housing affordability, either directly or indirectly. The hidden cost of land and new housing through state and local government levies and charges — and many of those don't get reinvested when and where they are collected — must be addressed.

Another key focus is to rectify the failures of our planning system that currently does not operate with any genuine connection to what the majority of South Australians value most.

The three pillars outlined in this document, Grow, Reform and Build, are targeted recommendations to get South Australia back on track.

Some are immediate steps to make a material difference, and others represent the beginning of a transformative journey that will lead to new and better approaches to urban development, more suited to South Australia's modern environment.

2. Economist - <https://melbourne.org.au/wp-content/uploads/2021/06/global-liveability-index-2021-free-report.pdf>

3. <https://www.aihw.gov.au/getmedia/602000e9-adeb-4939-a767-61945a7f6c06/haia-c01.pdf.aspx>



grow

Address the housing crisis

South Australians have always been proud that, for a vast majority and those lucky enough to be employed, if they wanted to own their own home, it was possible.

However, the alarm bells are ringing and many are already describing the current housing situation in South Australia as a crisis — the great Australian dream of owning a home is quickly becoming out of reach for some.

For South Australia, subdued population growth and relatively flat labour markets compared to other states have helped contain house prices in the past, but post-pandemic and with renewed interest in South Australia, we can no longer rely on those circumstances to protect things we hold dear.⁴

What and whether you can buy a house is a function of how much you earn and unfortunately on this metric, our housing market is the third least affordable nationally — falling behind Brisbane and Perth, even with a less buoyant economy and weaker immigration figures.⁵

The two largest contributors to this problem from a state perspective is the failure to plan for growth and the hidden cost of land and housing.

Graph 1: Adelaide Metropolitan Area

Median house prices by quarter (2000 – 2021)



Source sa.gov.au

Source
sa.gov.au



54%

increase of median house prices in Adelaide since 2011

\$600k

median Adelaide house price

The benefits of home ownership

+ Because the value of their homes are directly affected by what happens in the surrounding community, owner occupiers are likely to have stronger incentives than renters for civic involvement.

+ Home ownership provides greater security of tenure, reinforcing incentives for community participation. Less frequent relocation also minimises disruption to established social networks and children's education.

+ By giving occupiers more control over their living space, home ownership can enhance self-esteem, in turn reducing the incidence of socially disruptive behaviour and promoting physical and emotional wellbeing.

Source

Australian Government
Productivity Commission
Inquiry Report — First Home
Ownership, March 2004



Challenge

Current system is not conducive to housing affordability

The residential development industry builds homes for South Australians, delivers critical economic activity across the state and is reliant on two key factors:

1. Development must be commercially viable and is largely driven by the cost of land, construction and the value of the end product; and
2. Residential products (homes) delivered to market must be relatively affordable for homebuyers at different income levels.

The major reason for diminishing affordability is the hidden cost of land and housing imposed by taxation, regulatory charges and development delays which reduce feasibility and increase the purchase price.

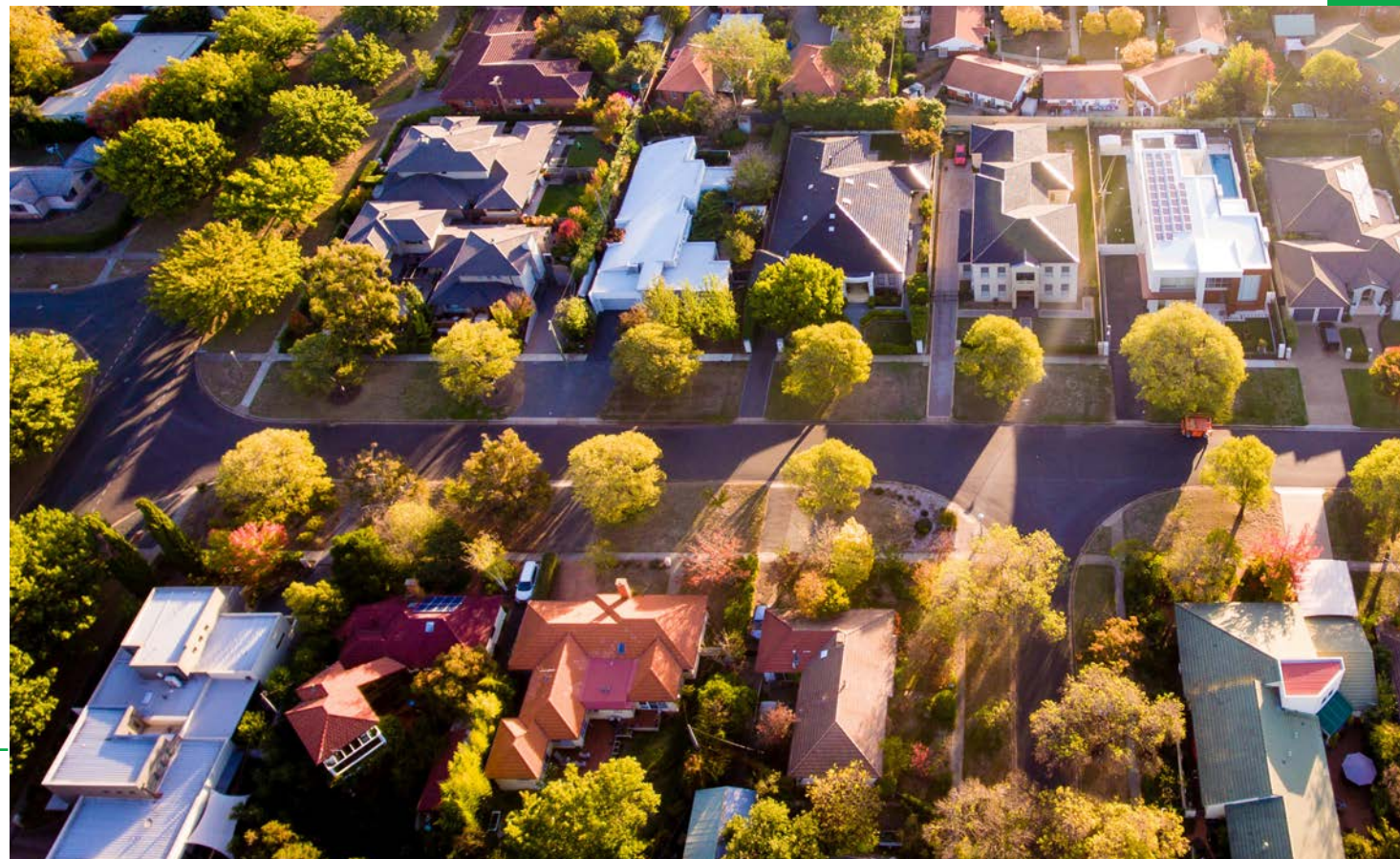
Addressing housing affordability should involve a series of measures that make housing accessible to all South Australians — not just mandating contributions and restrictions through the planning system.

Successive governments have hidden behind announcements about building and maintaining public housing stock which might provide some affordable housing — this is not the same as housing affordability.

While there is an important and critical role to assist those most in need within our community, the majority of South Australians will not qualify or want to access public housing, but that doesn't negate the responsibility or need for measures to address the affordability of housing for them.

Taxes and charges all contribute to retail pricing. Though often hidden, these costs are paid nonetheless and must be funded by the homebuyer or paid back over time through their mortgage.

With land and construction costs already under pressure, it is the hidden costs of housing that we ask a future state government to immediately address.



Housing affordability — how we stack up

On an international scale, Adelaide is right up there with our eastern seaboard counterparts as unaffordable.

Affordable

Most affordable

Pittsburgh, U.S.

2 Rochester, U.S.

3 Buffalo, U.S.

Unaffordable

23 Perth, Australia

18 Brisbane, Australia

13 Adelaide, Australia

6 Melbourne, Australia

3 Sydney, Australia

2 Vancouver, Canada

Most unaffordable

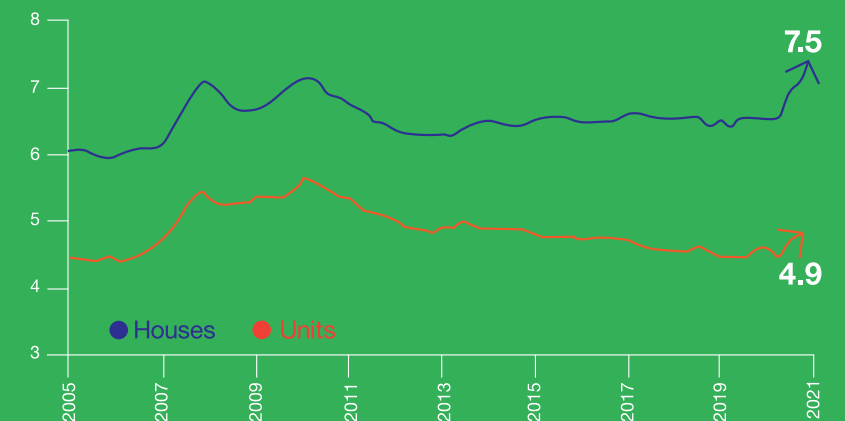
Hong Kong, China

Source

2021 Demographia International Housing Affordability

Graph 2:

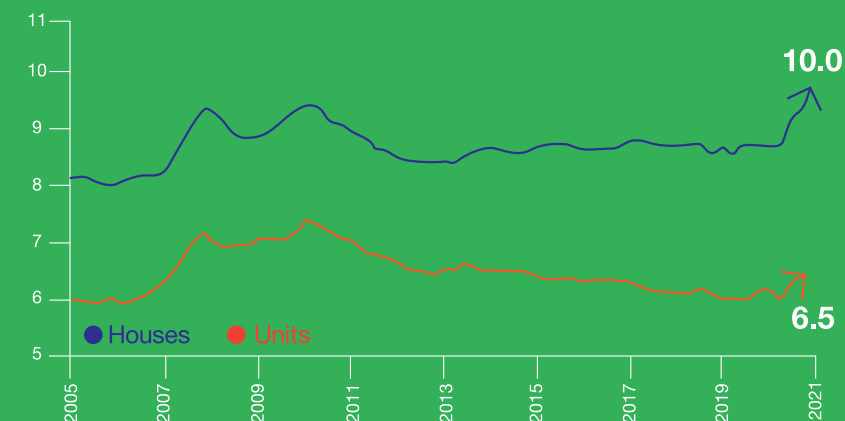
Value to household income ratio



In South Australia, housing values are growing disproportionately to household incomes so saving a deposit has never been more challenging.

Graph 3:

Years to save a deposit



Source

Core Logic



Springwood, Gawler East

Taxes and charges collected by the government

Developer Land Tax

Stamp Duty
(twice being paid, once by the developer and once by the homebuyer)

Foreign buyer surcharge

GST

Infrastructure Contributions

Open Space Contribution/Levy

Developer Council Rates

Utility charges

Code amendment fees

Development approval fees

\$215m

Homebuilder stimulus drove additional \$215m Stamp Duty above forecast in just one year!

Stamp Duty – the most inefficient and punitive tax of all

It is the single biggest transactional cost for purchasers of residential property. It acts as a disincentive to the turnover of housing stock and encourages homeowners to hold onto existing properties rather than find new accommodation more suited to their needs, as well as reducing redevelopment opportunities

South Australia has already removed commercial stamp duty entirely and the Commonwealth and other states have commenced conversations and reforming residential stamp duty. An incoming government must make a commitment to reform so we are not left behind.⁶

With review after review, the one thing everyone agrees upon is that it is inefficient, punitive and serves only one purpose — to collect revenue. With government budgets constrained due to the pandemic and short-term relief measures unaffordable, there is no better time to start a discussion about a pathway for wholesale reform in the future.

>\$22k
collected on the median house price

\$1.736 billion

land tax and stamp duty revenue for South Australian Government forecast for 2021/22

Source

2021–22
State Budget,
page 37

6. <https://www.nhfic.gov.au/research/researchreport/stamp-duty-reform/stamp-duty-reform-benefits-and-challenges/>

Challenge

The hidden costs of housing and development

There has never been a more critical time to get real about the high cost of housing of land in South Australia.

With the right measures and processes, this will be critical to realising the Australian dream — keeping South Australians owning and renting their own homes, and off the government's social and affordable housing waiting lists.

Recommendations

G1 Create and fund a cross-government task force led by the State Planning Commission with representation from the building and development sector to develop a new housing affordability and ownership action plan.

G2 Allocate responsibility and accountability for housing affordability and liveability across all government ministerial portfolios.

G3 Incorporate a Housing Affordability and Sustainability Impact Statement into all relevant Cabinet submissions to ensure cost impacts of new policies on consumers are minimised.

G4 Implement a continuing requirement for a State Government review of the cost impact of all policy decisions on construction and development standards.

G5 Create focus on housing affordability and ownership by considering appropriate amendments to the Planning Development and Infrastructure Act 2016 and associated regulations.

G6 Commit to an investigation of economic reform for the provision of housing in South Australia including:

- The development of a regulatory impact statement on all fees, charges and regulations related to the provision of housing
- A transitional pathway to reducing reliance on inefficient taxes and charges
- Options for the deferral of up-front taxes and charges for consumers to improve affordability
- Immediately abolishing stamp duty on all new residential, owner occupier, off the plan housing construction below the median house price to improve affordability and increase housing supply.

G7 Commit to a moratorium on new value capture taxes and charges.

G8 Commit to a moratorium on new or changed inclusionary zoning policies without engagement and agreement of the development sector.



Modern planning for growth and liveability

If you are from South Australia, you know who Colonel William Light is and the impact his vision continues to have on our state centuries later.

Fast forward to 2021 and unfortunately despite much talk about the planning system and lengthy debates in parliament when the new Act was passed in 2016, it is hard to say that the system is working as well as it should be.

Delivering an electronic planning system for processing applications isn't a substitute for actual considered planning for growth and has arguably moved the focus away from the planning 'outcome' to the planning 'process'.

There are two main areas that need to be addressed.

- Regional planning policies that address the look and feel of our city, suburbs and regions encompassed in a 30-year plan for Adelaide.
- Planning policies underpinned by evidence, metrics and contemporary data to ensure adequate supply of suitably zoned land for positive and sustainable growth in residential, commercial, and industrial areas.



Challenge

An outdated 30-year plan

Regardless of whether Adelaide’s population growth is modest or strong, there is an undeniable need for a plan that ensures that the things that matter, the things that create a liveable, sustainable and thriving community, are provided for.

A plan that addresses various scenarios and adapts accordingly to shape Adelaide in the most appropriate way is a necessity — a plan that takes into account trends in living patterns and addressing affordability to maintain Adelaide’s liveability.

The current version of the 30-Year Plan for Greater Adelaide simply became a list of aspirations of every government agency and a way to avoid detailed investment plans and commitments by state and local government.

One of the most obvious symptoms of not carefully planning for growth, is that more people who fear for what they may lose will begin to resent progress, and subsequently rally for no change at all. It’s therefore critical that we get the planning right.

Future state and local governments must stop abdicating their responsibility for public transport, road infrastructure and key essentials for new and thriving communities, and start investing in growth and urban regeneration areas.

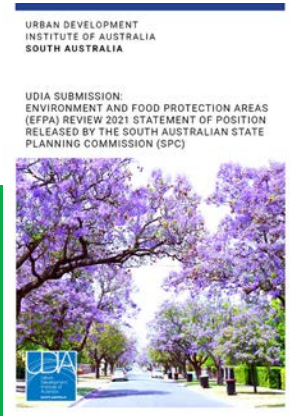
In new growth areas, incorrect assumptions and populous statements are too often used as a reason for restricting development because of the government’s reluctance to invest in infrastructure.

In the 2020 Infrastructure Strategy released by Infrastructure SA⁷, generalised statements about the role of growth areas were made based on the technical work of Infrastructure Victoria⁸. Unfortunately, generalised assumptions like this are at the expense of the primary driver in maintaining housing affordability, namely competitive market tension as well as providing more sustainable communities.

Other sustainability targets such as increased tree canopy for suburbs will also fail without better policies. Consumers want bigger houses and more amenities, but land prices are high and governments don’t want to service growth areas, so naturally lot sizes and yards end up being smaller.

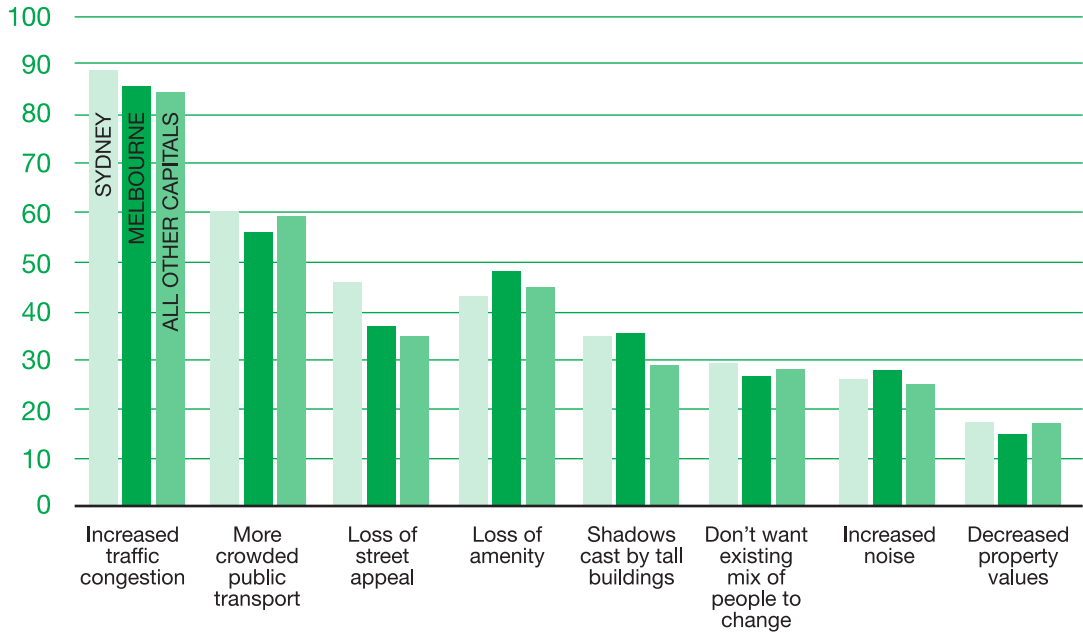
Until governments get serious about committing to and supporting a foundation for more green and spacious suburbs, simply telling developers, planners and consumers to just ‘be green’ is a plan destined to fail.

To develop a new 30-year plan that works, we must better understand what people want and create an environment that supports developers to build more of the outstanding new communities and a diversity of product — the ones that people want.



Read the UDIA SA Environment and Food Protection Areas Review Submission on the UDIA SA website

Graph 4:
Reasons why people don't want population growth in their neighbourhood⁹



Source

Grattan Institute
grattan.edu.au



Newenham, Mount Barker

7. Infrastructure SA Strategy https://www.infrastructure.sa.gov.au/_data/assets/pdf_file/0006/197511/20-Year-State-Infrastructure-Strategy-Full.pdf
8. Infrastructure Provision in Different Development Settings

9. <https://grattan.edu.au/wp-content/uploads/2018/03/901-Housing-affordability.pdf>

Challenge

Failure of the Planning Development and Infrastructure Act 2016

Despite the Planning Development and Infrastructure (PDI) Act 2016 being 278 pages in length and with just as many regulations accompanying it, the word affordability appears only three times and the phrase 'housing affordability' does not appear at all.

In this context it is not surprising that in operation, the Act is failing to deliver in some key areas.

One key feature of the PDI Act is the process to review the available land supply and changes that need to be made to Adelaide's footprint.

Under the PDI Act, the State Planning Commission is required to conduct an independent review every five years to assess future housing requirements.

Since its introduction however, the State Planning Commission has had no dedicated resources, staff or independent research capability, and for what is arguably one of the most important roles of the State.

In June 2021, the State Planning Commission completed its first review and under this infrequent and slow responding model, a declaration was made that there is adequate supply for future housing needs.

The land supply analysis informing the Environment and Food Production Areas Review relied upon population forecasts that pre-date the known impacts of the COVID-19 pandemic and its implications on overall population growth.

It also failed to consider detailed modelling around the impacts of the new Planning and Design Code. In addition, land use patterns across different parts of Adelaide were not considered and instead a 'Greater Adelaide' assessment of demand and supply was used.

As a consequence, Adelaide now relies on assessment of its long-term strategic planning and housing needs, based on outdated assumptions, leaving South Australia facing a great hurdle in quickly responding to affordability challenges in the future — challenges already being experienced in specific parts of Adelaide.

Not only does the UDIA believe the State Government has missed the mark on this, but the conclusion is also at odds with the Federal Government's report prepared by the Federal Government's National Housing Finance and Investment Corporation, which states:

Adelaide is soon to enter a period of under-supply against demand and forecasts 'supply is likely to remain soft and below demand from 2022'.

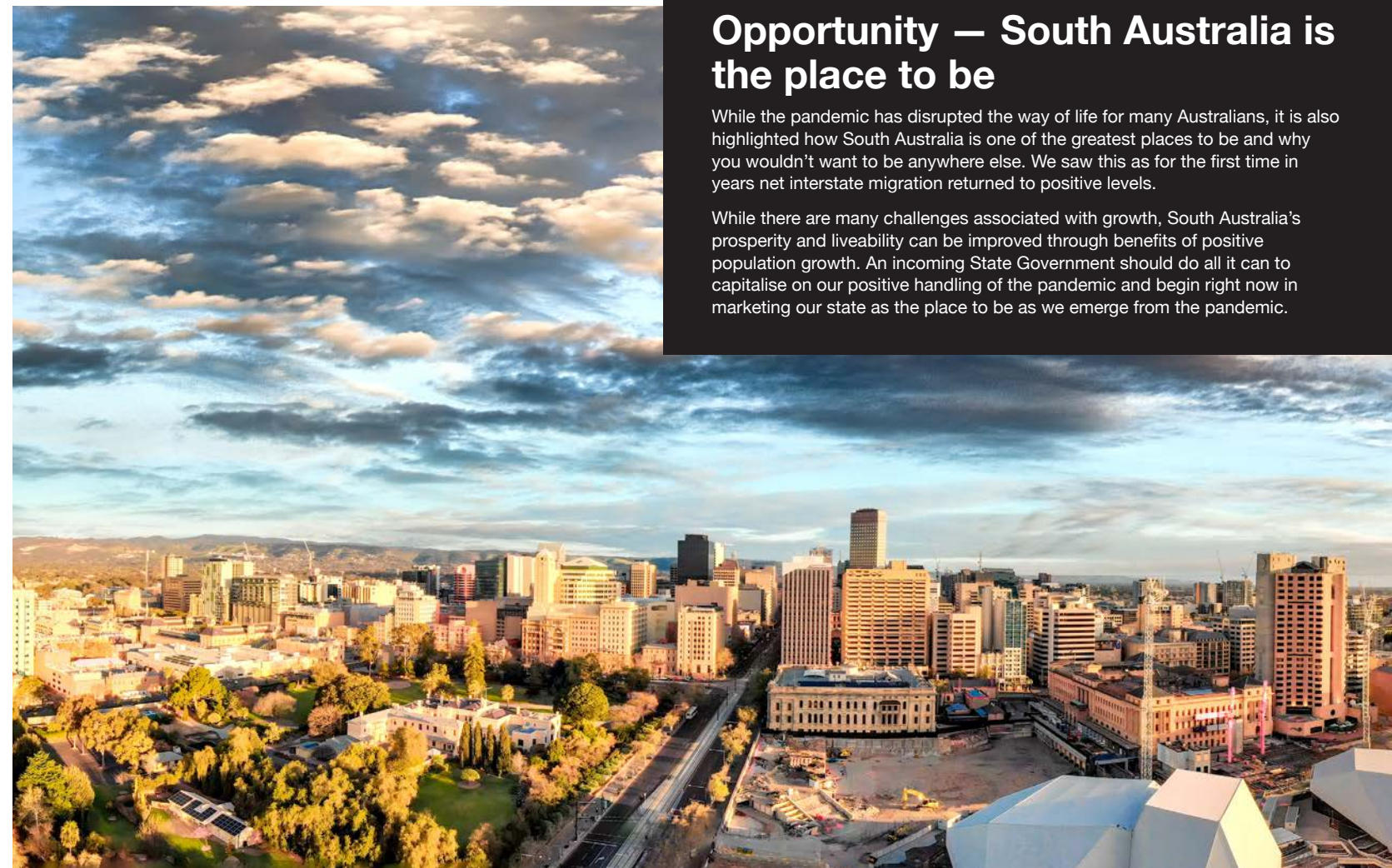
This reinforces the need for quick responses by governments and councils.

The UDIA made a comprehensive submission to the State Government and we continue to call on them to immediately act on these recommendations.

Opportunity — South Australia is the place to be

While the pandemic has disrupted the way of life for many Australians, it is also highlighted how South Australia is one of the greatest places to be and why you wouldn't want to be anywhere else. We saw this as for the first time in years net interstate migration returned to positive levels.

While there are many challenges associated with growth, South Australia's prosperity and liveability can be improved through benefits of positive population growth. An incoming State Government should do all it can to capitalise on our positive handling of the pandemic and begin right now in marketing our state as the place to be as we emerge from the pandemic.



Recommendations

Unashamedly plan for growth to protect our liveability and make South Australia a lifestyle destination of choice by:

G9 Invest in the development of a new real time electronic urban development monitoring tool in partnership with the UDIA, to improve state-wide planning for growth, liveability and affordability, and encourage increased private sector investment.

G10 Develop a new 30-Year Plan for Greater Adelaide¹⁰ by establishing a tripartite (local and state government and private developer) task group to develop terms of reference and coordinated with infrastructure capacity (see recommendation B1).

G11 Implement recommendations provided to the State Government and State Planning Commission in response to the recent Environment and Food Production Area review and in particular:

- Ensure Regional Plans for Greater Adelaide is premised on multiple scenarios and builds in appropriate growth opportunities in locations which are sought by the market.
- Address the over reliance in housing supply of single dwelling subdivisions and instead proactively and urgently increase land supply in market responsive locations including greenfield and large-scale brownfield areas.

G12 Independently review the operation and effectiveness of the new PlanSA e-Planning system and its impact on affordability through consultation with the development sector, councils, and utilities.

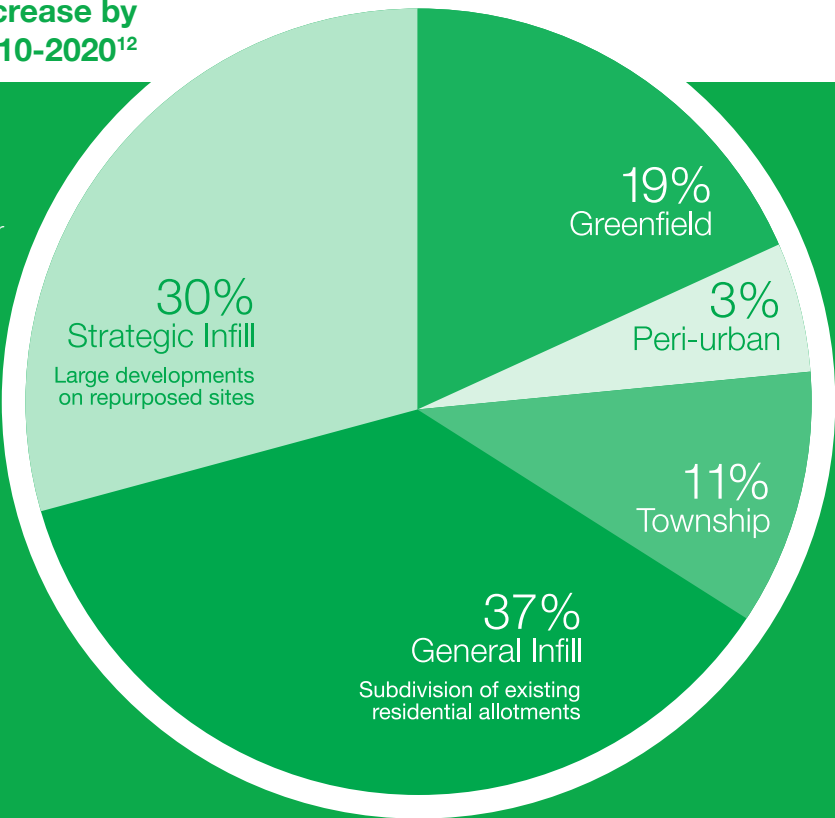
10. Referred to regional plans under the PDI Act.



Net dwelling increase by development type 2010-2020¹²

Source

Land Supply Report for Greater Adelaide, PlanSA



Part of the problem – 30-Year Plan for Greater Adelaide

The 30-Year Plan for Greater Adelaide was a useful document when first released, but 15 years on and it's time to take stock on what has worked and develop a new vision for Adelaide.

As an example, in the 2010 30-Year Plan for Adelaide it states:

By focusing growth in transit corridors we can ensure that we preserve Adelaide's distinctive urban character, leaving about 80 per cent of metropolitan Adelaide largely unchanged as a result of the Plan.

Just over a decade on, in a report released less than six months ago by PlanSA, it has been shown that development patterns have not eventuated in this way with general infill (single dwelling knock down and subdivision) representing 30%¹¹.

This has presented issues such as car parking, loss of tree canopy and many other issues which the State Planning Commission has had to address¹³. Some issues these create for liveability have also been articulated by the Southgate Institute at Flinders University which found that:

*Neighbourhood transition is already occurring across southern Adelaide by multiple actors; however, often in ways that don't contribute to improving neighbourhood liveability. Infrastructure, streets, footpaths, open spaces, public spaces and places are maintained and constantly altered by multiple actors subject to standards that often do not conform to the optimums required to enhance neighbourhood liveability. Private built form is constantly being redeveloped via small scale ad hoc infill.*¹⁴

Without a new plan this will go unaddressed. As can be shown in the extracts below, future land supply in the departmental reports released as recently as 2021 are for 30% of new housing supply over the next ten years from this type of development¹⁵. This means the demolition and subdivision of 68,000 dwellings of existing houses in existing suburbs.

With a new plan instead, we could begin a conversation about more large-scale strategic infill projects and work to unlock medium to higher density projects in appropriate areas. Better planned and more sustainable developments can include open space and, provide for suitable infrastructure upgrades. Similarly, there could be a more strategic commitment to revitalising the city centre with more residents.

The coloured areas in each of the diagrams represent demolition and rebuild areas identified by the government

Diagram 1: Inner North

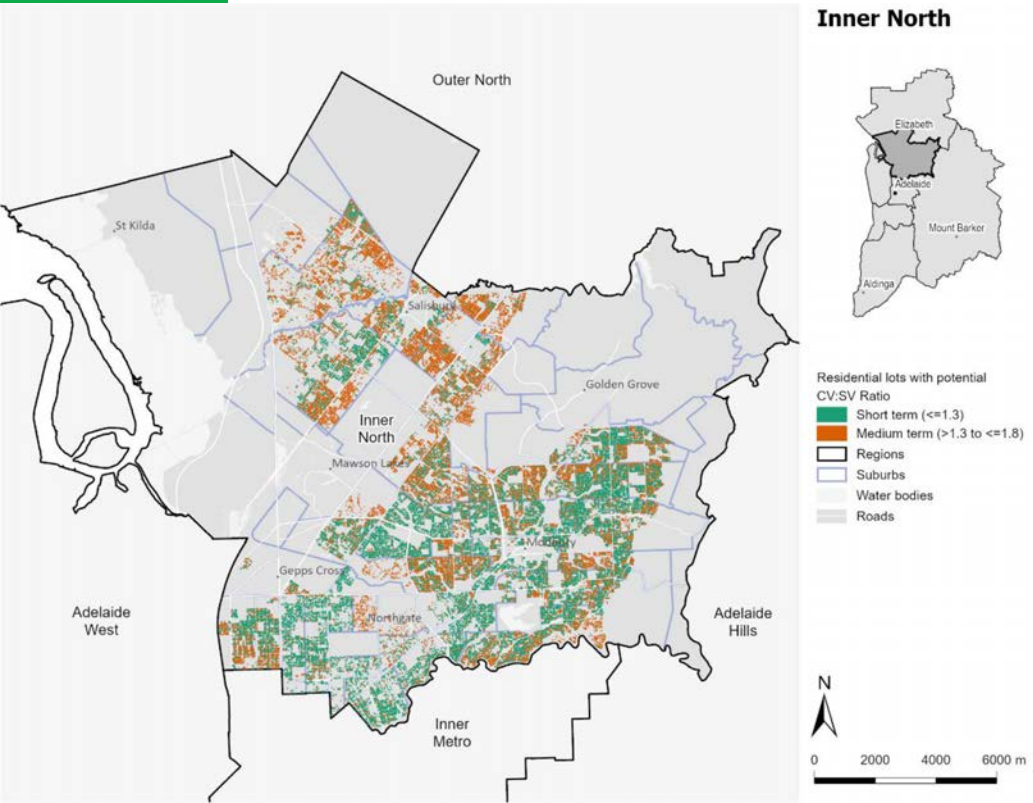
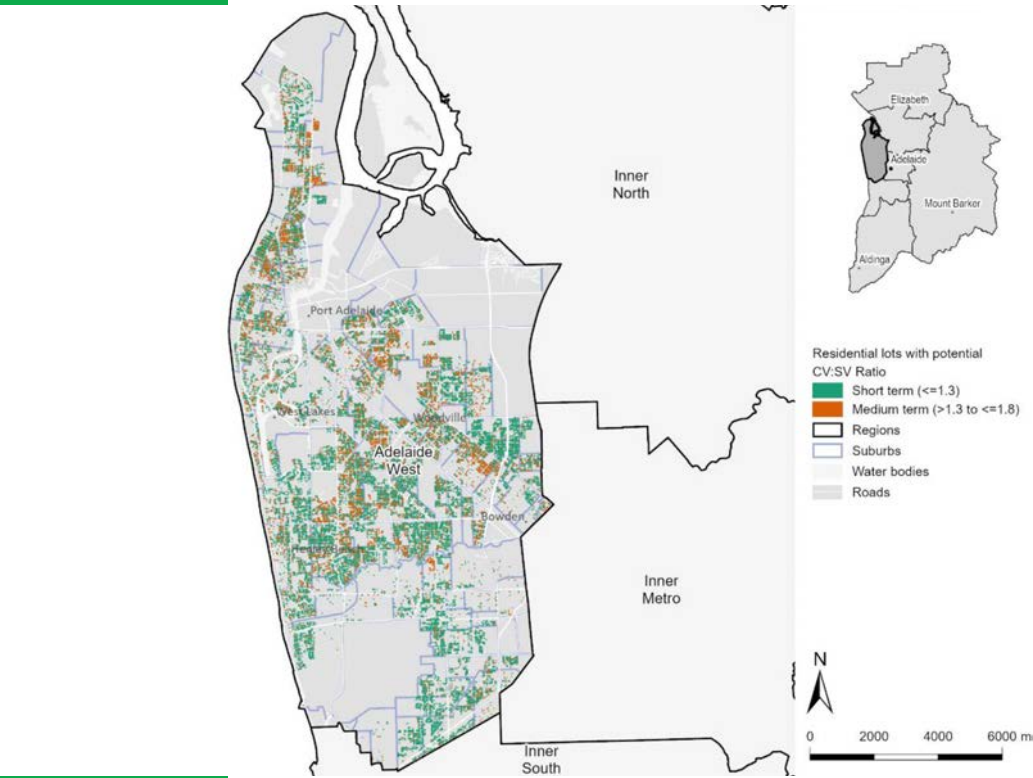


Diagram 2: Adelaide West



Source

Land Supply Report for Greater Adelaide, PlanSA

11. Define general infill
12. Land Supply Report For Greater Adelaide, Background and Context
13. State Planning Commission Infill Guidelines

14 <https://www.flinders.edu.au/content/dam/documents/research/southgate-institute/Healthy-South-HUNTT-project-brief.pdf>
15 https://plan.sa.gov.au/state_snapshot/land_supply

The coloured areas in each of the diagrams represent demolition and rebuild areas identified by the government

Diagram 3:
Inner South

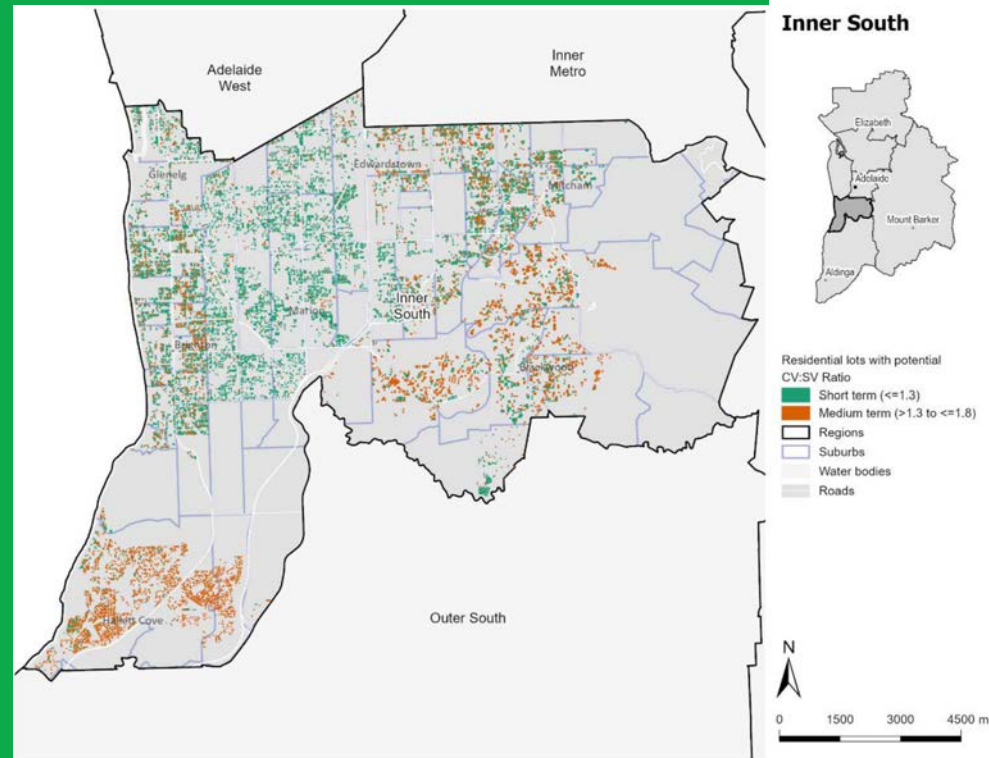
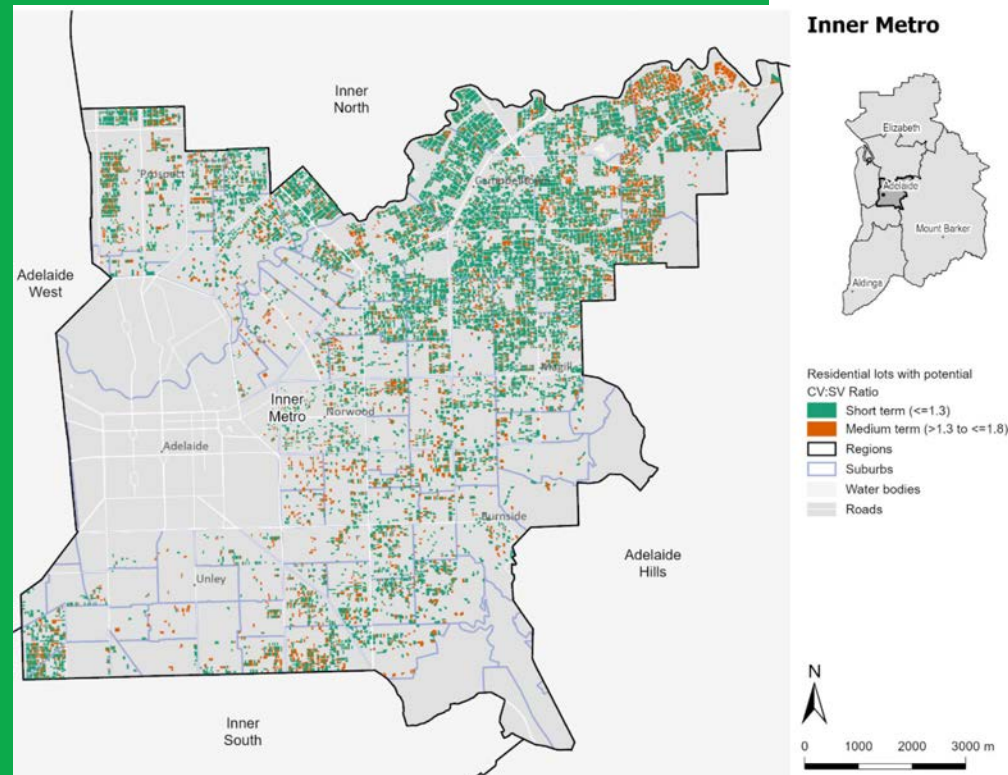


Diagram 4:
Inner Metro



Source

Land Supply Report for
Greater Adelaide, PlanSA

Transparency and accountability for home buyer levies and taxes

While essential levies and taxes add additional costs to housing, infrastructure is key when determining the liveability and affordability of living in South Australia.

Unfortunately, the regulatory and governance systems that identify, estimate, negotiate and charge for the delivery of key infrastructure, is of a poor standard. This finding was confirmed in the National Housing Finance and Investment Corporation report, *Developer contributions — How should we pay for new local infrastructure?*¹⁶

Challenge

Infrastructure and regulatory requirements for developer approvals

State government agencies, regulators, local government and utilities often have little or no incentive to consider the impacts of housing affordability.

When developers enter into negotiations with these bodies, the temptation to offset future budget requirements or cover investment and maintenance back logs against new developments, can often be too strong to resist.

In some cases, the regulatory systems and bodies even exclude housing affordability as a consideration, or requirements can be so stringent that they exceed ‘fit for purpose’ due to a total risk elimination approach.

The flow on impact of our poor systems is that those who can least afford it end up bearing the brunt — and almost always for many years over the life of a mortgage.

Historical underinvestment by state and local governments is funded by the next generation of homeowners who are already facing tougher home ownership conditions than their parents ever did.

The State Government must demonstrate leadership to reform the system and ensure greater transparency, efficiency and accountability to make better use of what is already collected.

Challenge

Developer contributions and delivery of infrastructure



Read the National Housing Finance and Investment Corporation report on the UDIA SA website. The report states:

Although developer contributions may (in theory) help ensure developers factor in and contribute to the cost of new infrastructure around housing developments, these contributions are typically complex to estimate and costly to administer. If developer contributions are unpredictable, poorly scoped or administered inefficiently, they have the potential to impede new housing supply and unnecessarily increase the cost of new housing.

Unfortunately, once developer contributions are made the mechanisms for reporting and oversight for these contributions is substandard.

State Government agencies and local government are responsible for the delivery of infrastructure, however information and reporting on what has been collected, expended and future plans for infrastructure investment is often very limited.

Sometimes this means that home buyers have already paid for amenity in a development but are faced with long waits and developers are powerless to intervene.

Developer contributions that are funded by homeowners shouldn’t be subject to any less transparency than any other government functions and the system needs reform.

By better targeting what we need, promoting competition and efficiency, more new homeowners will be able to enjoy a better and more liveable community.

Recommendations

- The UDIA is calling on the incoming state government to commit to the review, identification and improvement of regulatory oversight involving developer contributions and charges.
- R1.** Enforceable guidelines are implemented so that:
- a. Developer contributions are fit for purpose and relate to the development project in question
 - b. Genuine competition and best pricing principles address monopolistic behaviour.
- R2.** State and local government agency requirements (including utilities) can be reviewed and contested to ensure that they are not cross subsidising other activities unrelated to the development.
- R3.** Contributions already collected by state and local government must be reported and audited annually with detailed plans and timeframes for their use.



Northridge, Enfield

Invest in open space

A key determinant of liveability in a city is the amount of open space, including its quality and function, as well as the streetscapes and public realm. The best suburbs in Adelaide all boast a powerful combination of these.

Open space requirements are governed by the PDI Act and unfortunately the framework adopted to ensure Adelaide has the best open spaces is simply not delivering on its intention.

The UDIA suggests a comprehensive legislative review is required and that the State Planning Commission consult with the sector and councils on what best suits Adelaide, with a consideration to world's best practice.

How the system works now

The Planning and Development Fund (the Fund) operates under the Planning, Development and Infrastructure Act 2016 (the Act) and provides the means for open space and public realm investment across South Australia.

Monies paid into the Fund are derived from monetary payments in lieu of open space requirements for development involving the division of land into 20 or fewer allotments and also for strata and community titles. The Fund is expended in line with provisions within the Act and is administered by the Office for Design and Architecture SA within the Attorney-General's Department.

Where an application for a development authorisation provides for the division of land into more than 20 allotments, the council in whose area the land is situated may require that up to 12.5% in area of the relevant land area be vested in the council as open space or provide a financial contribution in lieu of the provision open space.

The developer not only provides land for open space but also funds, develops and delivers parks, recreation and infrastructure on this land that is subsequently divested to Council (for example playgrounds, paths and landscaping).

Challenge

Urban infill contributions going to the wrong place for the wrong thing

Each time a property in Greater Adelaide is subdivided, developers are subject to a fee of more than \$7,900 per new allotment. This fee, which is passed on to homebuyers, is contributed to the State Government’s Planning and Development Fund — funds flagged for investment in open space and public realm. However, where these dollars actually get spent would shock many South Australians.

The current process is outdated and where the funds are spent has no regard for where they derived from.

More often than not, funds are allocated to councils and projects that have the greatest capacity to deliver, rather than the greatest need for investment in amenity and infrastructure, an outcome that is largely the result of the matched funding criteria.

In fact, a large portion of the funds collected from suburban Adelaide are used to fund the State Government’s regional projects.

Further, the formula and strategy for what is collected bears no resemblance to what already exists on the ground or is available to residents.

Every dollar contributed by homebuyers to open space should be spent on open space and more of it in the local area from which it was collected; on innovative projects that meet needs and deliver value for communities.

The incoming state government must stop using a dedicated open space fund to address other infrastructure investment or needs, including the redirection to fund the creation and implementation of the new ‘Planning and Design Code’ — despite the fact the state government collects millions of dollars in fees that should have been used to fund this project.

Challenge

Lack of strategic planning for coordination of open space

Councils should be planning strategically for open space in their area with clear objectives and coordination.

Currently, due to the short-term budget considerations of some councils, developers are requested or forced to make cash payments in lieu of open space.

Further, though inconsistent with the Green Adelaide Regional Landscape Plan and in conflict with creating more sustainable urban environments, instances of developers being instructed by councils to install concrete or hard surfaces rather than sustainable green landscaping so the council can avoid ongoing maintenance costs and obligations when the open space is divested to them, are becoming all too common.

The incoming state government must play a role in ensuring councils develop strategic plans, address the varying standards of open space across council areas, and ensure there is a coordinated approach across the greater metropolitan area.

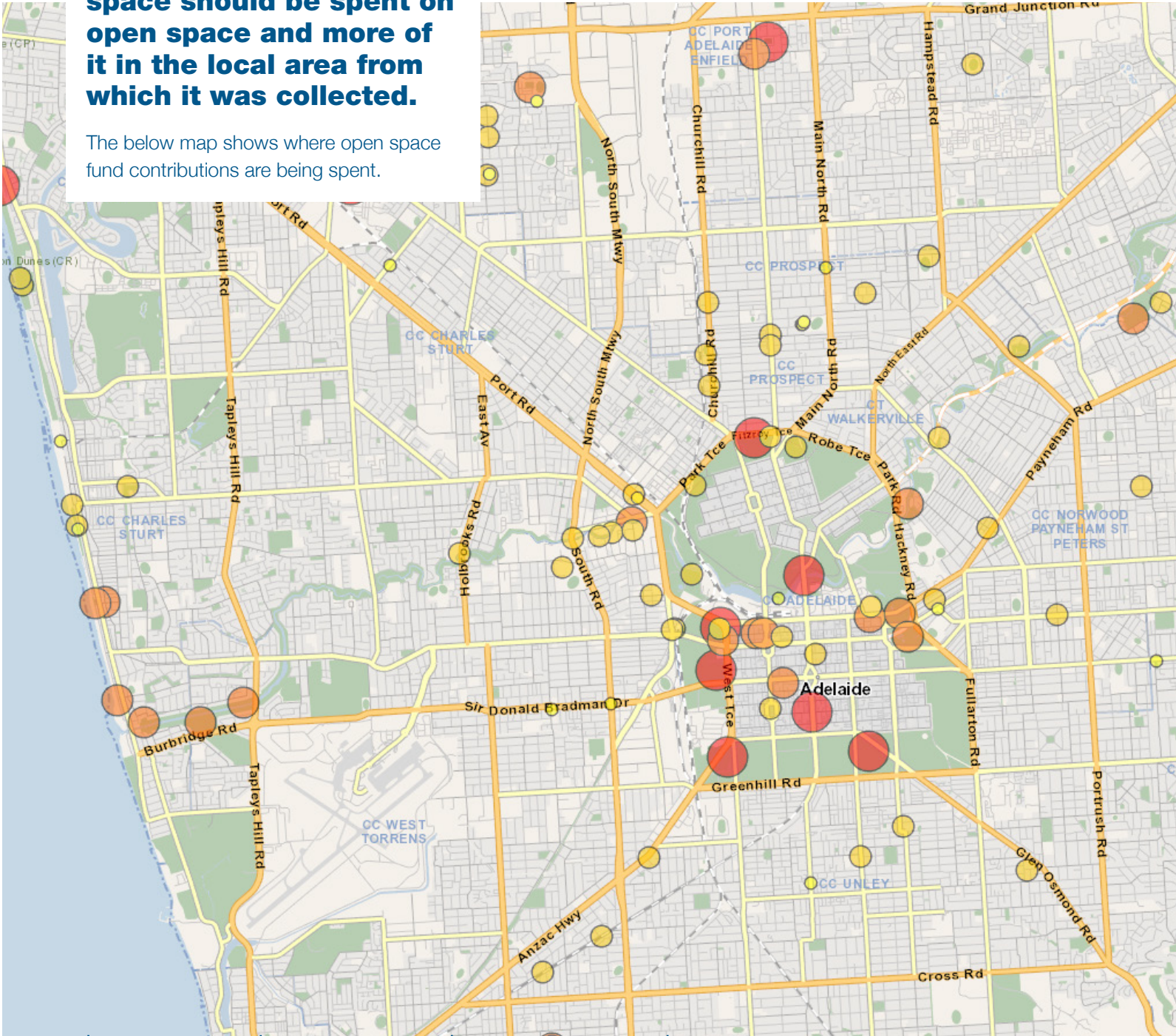
Better planning will benefit residents in the long term and maximise the contributions the developers make through their future investment decisions.

The framework should also provide flexibility to work with developers of large strategic infill sites so that developers can utilise the contributions in that development area, thereby benefiting the new residents and also those who live nearby.

Large strategic infill sites provide exciting opportunities to provide new, innovative and useable open spaces for surrounding residents, and by leveraging the investment by developers, even more can be achieved.

Every dollar contributed by homebuyers to open space should be spent on open space and more of it in the local area from which it was collected.

The below map shows where open space fund contributions are being spent.



Source

location.sa.gov.au



River Torrens Linear Park

Even though Linear Park is a stormwater management space, the River Torrens delivers an important visual amenity, environmental quality, micro-climatic impact and recreational value, regardless of an individual's inability to occupy the water body itself. Quality open spaces such as Linear Park should be considered as prime open space.

Many councils also impose a minimum open space size on the pretence that it is cheaper to maintain a few larger spaces than a larger number of smaller spaces. Sometimes this could resulting in nothing more than dry land grassed areas that are slashed by a ride-on mower twice a year.

The development of smaller areas of open space but to a much higher standard of usability and visual amenity should be our goal, to ensure that a greater number of residents are in closer walking distance to a reserve.

Challenge
Growth areas

In growth areas and larger sub-divisions, the development contribution of 12.5% of open space is often problematic due to the outdated framework. South Australia needs a contributions system which dedicates open space funds to the area in which they are collected and recognises the contemporary ways in which multipurpose open spaces can provide valuable amenity.

Currently, councils typically discount the contribution value of open space where it has a dual use, for example open spaces with stormwater detention facilities. This is the case notwithstanding there are numerous examples of successful combinations of open spaces and stormwater management throughout metropolitan Adelaide, where storm water infrastructure, such as storm water retention and detention basins, can provide strong local aesthetic amenity, recreation and biodiversity opportunities.

With more innovative and alternative uses recognised as legitimate and desirable uses of open space, not only can our suburbs feature better quality spaces, but also improve housing affordability.

Read the UDIA Submission to Parliament of South Australia Natural Resources Committee for the Inquiry into urban green spaces, on the UDIA website.

The UDIA provided a list of important factors that should be considered how these contributions need to be spent.





Penneys Hill Estate, Hackham

Smaller 'pocket reserves' can be designed and delivered with sustainable maintenance in mind when considered as part of a broader integrated open space scheme.

build

Recommendations

R4. Facilitate better urban amenity and accessibility by committing to reviewing and reforming operation of the Planning and Development Fund and open space contributions to create a fairer, more flexible and effective system that is reflective of contemporary development trends including:

- a. The requirement for each council to develop and publish an open space strategic plan outlining the objectives, maintenance and investment plans approved by the state government.
- b. State government to develop a metropolitan wide open space plan encompassing each council area.
- c. Clear and transparent reporting of all open space contributions made to the Planning and Development Fund and expenditure from it annually by post code.
- d. Mechanisms for more contributions made to the open space fund to be accessible for use in the areas collected for a wider range of uses.
- e. Repealing parts of the PDI Act to prohibit the use of open space contributions for departmental systems or operational expenditure.

R5. Reviewing and reforming the operation of the PDI Act and regulations to create a fairer, more flexible and effective system reflective of contemporary development trends in new development areas that:

- a. Incorporates all open space uses into the 12.5% contribution at 100% value towards that open space contribution, where the land can be demonstrated to have one or more of a revised list of open space values such as those identified earlier.
- b. Restricts the ability to impose unreasonable minimum open space areas on individual reserves by recognising within the Planning and Design Code the multiple uses and sizes of reserves required to serve a multitude of functions, where the quality and functional relevance of the space can be demonstrated.
- c. Recognises the value of landscaped streetscapes and urban plazas as major contributions to urban amenity which should form part of the contribution towards open space.

Better and more community infrastructure

A key component of successful growth is the provision of infrastructure.

To successfully grow our population and economy, much more work on planning and increased investment for trunk infrastructure, roads, stormwater and public transport is required. Without it, our liveability is at risk.

Challenge

The missing middle of infrastructure

At a local level, developers deliver transport, social and environmental infrastructure, some even provide schools and childcare facilities, retail precincts and medical services — they are rising to the challenge.

State and Federal government partnerships provide much of the major infrastructure such as expressways. For some areas in the north that are booming (much like Angle Vale), it’s no surprise the Northern Connector and Northern Expressway have played a crucial part in that.

The biggest challenges we face are what might be described as the ‘missing middle of infrastructure’. It’s the type of infrastructure joining suburbs and communities together and it has been overlooked.

Currently, developers fund and build vast amounts of infrastructure, while state and local government infrastructure such as connecting roads and schools are frequently lagging — often not built until there is a public outcry or call for it.

The infrastructure challenges we face are symptomatic of an absence of a coordinated vision and the sharing of responsibilities between state and local government — which usually means that no one takes the lead with blame shifted to the development sector.

The PDI Act and other pieces of legislation are deficient in this area, both in the identification and measurement of what is required and the different views of councils about the infrastructure they require.

An added problem is that Infrastructure SA has not made this a key area of focus and is also relying on an under resourced State Planning Commission take the lead.

With more strategic leadership, planning and emphasis on a coordinated approach, the incoming state government can invest in this infrastructure upfront and with more confidence.



King William Road redevelopment



In time, different developments in the north will become connected suburbs and government must take the lead. People in growth areas like the north of Greater Adelaide are no less entitled to access to public transport, good schools and other infrastructure than anyone else.

The Northern Expressway and the Northern Connector have been game-changers in terms of developments being able to occur in those areas.



Read the UDIA 20-Year State Infrastructure Strategy Discussion Paper submission

Challenge

Cost of essential utility infrastructure

Similarly, a corporatised and privatised provision of trunk infrastructure through regulatory regimes that are governed by different legislation does not allow for the best coordination, pricing and efficient delivery of key infrastructure for an innovative urban development.

In addition to state and local government infrastructure, it is critical that we revisit third party access rules for all essential infrastructure. If South Australia is to have a user pays system, it cannot exist in the absence of competitive alternatives to lower costs for developers and ultimately consumers.

A future state government should commit to the bring all these disparate interests together so that efficiencies can be unlocked and more and better infrastructure can be delivered.

Recommendations

B1 Include in the Infrastructure SA charter an increased focus to better recognise the relevance of urban development to the state economy and to consider a suite of infrastructure projects directly aimed at unlocking identified areas for growth.

B2 Create an Urban Futures Infrastructure task force that includes representation from Infrastructure SA, State Planning Commission, state government agencies, local government, utilities and the UDIA to investigate capacity analysis of essential infrastructure in the greater metropolitan areas for both infill and growth areas to unlock areas for growth.

B3 Develop agreed terms of reference for an independent review of competition and pricing mechanisms related to core urban development infrastructure and consider amending third party access arrangements and/or state government guidelines to increase efficiency of infrastructure delivery and improve housing affordability.

B4 Within 12 months of election, review and reform all legislative mechanisms that guide infrastructure access, standards, levels of competition and pricing related to urban development by state and local government.



2019 UDIA Infrastructure Roundtable

As a thought leader on this issue, the UDIA called for a more collaborative and coordinated utility infrastructure delivery strategy for South Australia in its Grow Reform Build platform released in early 2018.

This call was also made in the context of the legislative requirements under the Planning Development and Infrastructure Act that requires the State Planning Commission to report on land supply.

Challenge

Create environment that supports more efficient delivery



Read the UDIA Submission to Parliament of South Australia Natural Resources Committee for the Inquiry into urban green spaces, on the UDIA website.

The UDIA provided a list of important factors that should be considered how these contributions need to be spent.

Stop taxing production of housing

The more supply of housing provided, the lower prices are kept and housing affordability is improved. That's why it is important to do all we can to ensure the development process and environment for business is as efficient as possible.

Along with a myriad of risks and other challenges in the development process, one factor impacting the supply of housing is the imposition of land tax on developers if they hold stock unsold as at 30 June.

Most developers are not long-term landowners that receive rent, however they are treated as such so charges are passed on to home buyers as part of the sale price.

The current system discourages developers from developing large land holdings which can impact supply through certain parts of the year. It means developers are forced to produce smaller stages and stop operating as efficiently as they otherwise could, leading to higher prices. In some cases, it means a total halt to production — the consequence if they don't is to raise prices.

A consumer could end up paying an additional \$4,000 as a result — an amount that gets added to the price and generally the value of a mortgage. When one considers that this is borrowed by the homebuyer for the life of their loan, the cumulative effect to that homeowner is massive.

In a report prepared by the South Australian Centre for Economic Studies, an independent analysis was completed around the operation of land tax and impacts on the development sector. The report recognised the issues faced by the development sector and made specific recommendations that land tax exemptions should exist for the development sector.

State government schemes exist in both Queensland and Western Australia recognising this very fact and providing mechanisms to address it. We are calling on an incoming South Australian government to implement a sensible reform that does not discourage the production of new housing.

Recommendation

B5 The UDIA calls on a new state government to introduce land tax exemptions for recently created titles held by developers as trading stock that remain unsold as at 30 June.

Recommendation Summary

Grow	G1	Create and fund a cross-government task force led by the State Planning Commission with representation from the building and development sector to develop a new housing affordability and ownership action plan.
	G2	Allocate responsibility and accountability for housing affordability and liveability across all government ministerial portfolios.
	G3	Incorporate a Housing Affordability and Sustainability Impact Statement into all relevant Cabinet submissions to ensure cost impacts of new policies on consumers are minimised.
	G4	Implement a continuing requirement for a State Government review of the cost impact of all policy decisions on construction and development standards.
	G5	Create focus on housing affordability and ownership by considering appropriate amendments to the Planning Development and Infrastructure Act 2016 and associated regulations.
	G6	Commit to an investigation of economic reform for the provision of housing in South Australia including: a. The development of a regulatory impact statement on all fees, charges and regulations related to the provision of housing b. A transitional pathway to reducing reliance on inefficient taxes and charges c. Options for the deferral of up-front taxes and charges for consumers to improve affordability d. Immediately abolishing stamp duty on all new residential, owner occupier, off the plan housing construction below the median house price to improve affordability and increase housing supply.
	G7	Commit to a moratorium on new value capture taxes and charges.
	G8	Commit to a moratorium on new or changed inclusionary zoning policies without engagement and agreement of the development sector.
	G9	Invest in the development of a new real time electronic urban development monitoring tool in partnership with the UDIA, to improve state-wide planning for growth, liveability and affordability, and encourage increased private sector investment.
	G10	Develop a new 30-Year Plan for Greater Adelaide ¹⁷ by establishing a tripartite (local and state government and private developer) task group to develop terms of reference and coordinated with infrastructure capacity (see recommendation B1).
	G11	Implement recommendations provided to the State Government and State Planning Commission in response to the recent Environment and Food Production Area review and in particular: a. Ensure Regional Plans for Greater Adelaide is premised on multiple scenarios and builds in appropriate growth opportunities in locations which are sought by the market. b. Address the over reliance in housing supply of single dwelling subdivisions and instead proactively and urgently increase land supply in market responsive locations including greenfield and large-scale brownfield areas.
	G12	Independently review the operation and effectiveness of the new PlanSA e-Planning system and its impact on affordability through consultation with the development sector, councils, and utilities.

¹⁷ Referred to regional plans under the PDI Act.

Recommendation Summary

Reform	R1	Enforceable guidelines are implemented so that: a. Developer contributions are fit for purpose and relate to the development project in question b. Genuine competition and best pricing principles address monopolistic behaviour.
	R2	State and local government agency requirements (including utilities) can be reviewed and contested to ensure that they are not cross subsidising other activities unrelated to the development.
	R3	Contributions already collected by state and local government must be reported and audited annually with detailed plans and timeframes for their use.
	R4	Facilitate better urban amenity and accessibility by committing to reviewing and reforming operation of the Planning and Development Fund and open space contributions to create a fairer, more flexible and effective system that is reflective of contemporary development trends including: a. The requirement for each council to develop and publish an open space strategic plan outlining the objectives, maintenance and investment plans approved by the state government. b. State government to develop a metropolitan wide open space plan encompassing each council area. c. Clear and transparent reporting of all open space contributions made to the Planning and Development Fund and expenditure from it annually by post code. d. Mechanisms for more contributions made to the open space fund to be accessible for use in the areas collected for a wider range of uses. e. Repealing parts of the PDI Act to prohibit the use of open space contributions for departmental systems or operational expenditure.
	R5	Reviewing and reforming the operation of the PDI Act and regulations to create a fairer, more flexible and effective system reflective of contemporary development trends in new development areas that: a. Incorporates all open space uses into the 12.5% contribution at 100% value towards that open space contribution, where the land can be demonstrated to have one or more of a revised list of open space values such as those identified earlier. b. Restricts the ability to impose unreasonable minimum open space areas on individual reserves by recognising within the Planning and Design Code the multiple uses and sizes of reserves required to serve a multitude of functions, where the quality and functional relevance of the space can be demonstrated. c. Recognises the value of landscaped streetscapes and urban plazas as major contributions to urban amenity which should form part of the contribution towards open space.

Recommendation Summary

Build	B1	Include in the Infrastructure SA charter an increased focus to better recognise the relevance of urban development to the state economy and to consider a suite of infrastructure projects directly aimed at unlocking identified areas for growth.
	B2	Create an Urban Futures Infrastructure task force that includes representation from Infrastructure SA, State Planning Commission, state government agencies, local government, utilities and the UDIA to investigate capacity analysis of essential infrastructure in the greater metropolitan areas for both infill and growth areas to unlock areas for growth.
	B3	Develop agreed terms of reference for an independent review of competition and pricing mechanisms related to core urban development infrastructure and consider amending third party access arrangements and/or state government guidelines to increase efficiency of infrastructure delivery and improve housing affordability.
	B4	Within 12 months of election, review and reform all legislative mechanisms that guide infrastructure access, standards, levels of competition and pricing related to urban development by state and local government.
	B5	The UDIA calls on a new state government to introduce land tax exemptions for recently created titles held by developers as trading stock that remain unsold as at 30 June.

Sources

Page	Source	Source Link
14	sa.gov.au	https://www.sa.gov.au/topics/planning-and-property/researching-a-property/median-house-sales-by-quarter
15	sa.gov.au	https://www.sa.gov.au/topics/planning-and-property/researching-a-property/median-house-sales-by-quarter
15	Australian Government Productivity Commission Industry report — First Home Ownership, March 2004	https://www.pc.gov.au/inquiries/completed/first-home-ownership/report/housing.pdf chapter 1, page 3
17	2021 Demographia International Housing Affordability	http://www.demographia.com/dhi.pdf
17	CoreLogic	https://news.anz.com/content/dam/news/articles/2021/November/ANZ_CoreLogic_Housing_Affordability_Report_2021_Final_Ir.pdf
19	2021–22 State Budget	https://www.statebudget.sa.gov.au/budget-papers/2021-22-Budget-Statement.pdf
23	Grattan Institute	https://grattan.edu.au/wp-content/uploads/2018/03/901-Housing-affordability.pdf
26/27/28	Land Supply Report for Greater Adelaide, Plan SA	https://plan.sa.gov.au/state_snapshot/land_supply/land_supply_reports_for_greater_Adelaide
35	location.sa.gov.au	www.location.sa.gov.au/viewer

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6th August 2021

Ms Helen Dyer
Chair
State Planning Commission
Level 5, 50 Flinders Street,
Adelaide SA 5000

Dear Ms Dyer

RE: Environment and Food Protection Areas (EFPA) Review 2021 Statement of Position released by the South Australian State Planning Commission (SPC)

Please find attached the Urban Development Institute of Australia (UDIA) submission in relation to the recently released Environment and Food Protection Areas (EFPA) Review 2021 Statement of Position released by the South Australian State Planning Commission (SPC).

In terms of the legislated requirements for review, it is of concern to the UDIA that the SPC has wrongly narrowed the scope of the EFPA review under section 7(10) of the Act and is undertaking the review too far in advance of the legislated review date (at some time after 1 April 2022). The attached legal advice from Botten Levinson Lawyers details the problems with the review as it is presently framed.

Notwithstanding the SPC is able to conduct a review from time to time under section 7(8) of the Act, the UDIA believes the SPC should undertake the five yearly review in accordance with the requirements of the Act and not foreclose any consideration of the relevant issues. We maintain that this will require the review to be undertaken in 2022 having regards to all of the matters relevant to section 7(3)(a) of the Act. This will require proper consultation on the land supply matters (at or close to April 2022) that the present review wrongly states are not open for discussion.

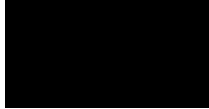
In addition to the above, we are concerned about the use of the associated Land Supply Reports. Rather than shaping Adelaide in the most appropriate way to take account of new trends in living patterns or addressing affordability to maintain Adelaide's liveability, it appears they will be utilised as references to either approve (or not) future developments based on the historical patterns of development that have been extrapolated into future forecasts.

We are also concerned about the assumptions underpinning the reports (see attachment). It is the incorrect assertions about excess land supply that have too often been used as a reason for restricting development because of the government's reluctance to invest in infrastructure, which unfortunately is at the expense of the primary driver in maintaining housing affordability, namely competitive market tension.

Despite our repeated offers, the release of such important supporting documents with no formal consultation is disappointing. Without addressing these concerns, we fear for the State's overall liveability and affordability and the significant and unnecessary risk to the State's economy.

The UDIA will continue to offer its support to work with the Department to take advantage of important industry insights, and we look forward to discussing this submission with you in more detail.

Regards



Pat Gerace
CHIEF EXECUTIVE

Attachment 1: Environment and Food Production Areas Review 2021 Submission (UDIA)

Attachment 2: Legal Advice - Botten Levinson

CC- Deputy Premier, Attorney-General, Hon Vickie Chapman MP

Attachment 1: Environment and Food Production Areas Review 2021 Submission (UDIA)

This submission contains commentary on:

1. EFPA review process to date and associated legislation
2. Status and use of Land Supply Reports as planning policy
3. Land Supply and EFPA Report – Assumptions and Scenario Analysis
4. Land Supply Report for Greater Adelaide – Greenfield
5. Land Supply Report for Greater Adelaide – Urban Infill
6. Land Supply Report for Greater Adelaide – Employment
7. Environment and Food Production Areas Review 2021 – Statement of Position
8. Recommendations

EFPA review process and associated legislation

While the review of the EFPA did not ask for commentary on the Planning Development and Infrastructure Act (PDI), unfortunately the consequences of the Bill passed are now evident.

The UDIA was very clear at the time of the implementation and during the debate of the PDI Bill that it did not support the inclusion of the Environment and Food Protection Areas within the legislation as drafted for several reasons.

We said at the time the framework was flawed and designed so that there would never be any changes. We are now faced with a situation where the supply of land and affordability of housing in certain areas is at a very significant risk as a result.

At the time the UDIA stated:

By requiring Parliament to legislate to amend the boundary presents a great risk for South Australia in its capacity to quickly respond to future challenges and is likely to lead to it only reacting in a time of crisis. Through the current policy and zoning regimes an effective boundary is already in place. A legislated urban growth boundary may only cause future speculation and adversely impact home affordability and choice.

The UDIA believes the objective evidence and existing policy landscape was more than sufficient to ensure that Adelaide's growth could continue to occur in an orderly and sustainable way.

The implementation of the boundary as part of the Act included no meaningful consultation on the location of the boundaries and was only provided days before being laid on the table in Parliament.

The Government at the time provided no modelling or objective analysis about the conclusions that it had come to with respect to these boundaries and was an example of bad public policy which ultimately succumbed to parliamentary fatigue.

Despite our warnings, included in the Bill was the requirement that future reviews of the boundary on a five yearly basis would be required by the SPC, but parliamentary scrutiny and oversight would be required for that to take effect. The UDIA stated at the time that things can change rapidly and the need for addressing the location of the boundaries must be more flexible. The significant hurdles, namely parliamentary approval was flawed from the outset because it would be next to impossible to amend despite the touted objectivity. We believe that this level of detailed planning policy should not be subject to the full parliamentary process.

Policy decisions around the definition of available supply within the Act also fail to recognise the many nuances of planning for Greater Adelaide. This composition of dwelling types, requisite infrastructure, supply in various submarkets, the difference in prices and product types all factor into the liveability of Adelaide.

Following the passing of the Bill on the 12th of April 2016 the UDIA wrote to the then Minister and expressed our concern at the very broad criteria specified in the Act that the Commission has to consider. We said at the time:

The criteria refers to fifteen years supply and we urge you to ensure that this applies in all identifiable locations. For example this should apply to townships surrounded by the Environment and Food Production Areas as well as each council area (particularly metro). Any measure of supply should not be satisfied by pointing to one or two growth areas only.

and

Finally, underpinning all the above is housing affordability. This needs to be a key criteria to ensure that house and land prices per square metre are significantly lower than all other mainland capitals.

Following raising these matters, the UDIA has consistently requested information from the Government about what it called its Metropolitan Growth Management Plan, and what we understood to be the basis for how the Department would inform the SPC as part of its statutory obligations under the Act.

We expressed concern about the Department's pilot project in the City of Onkaparinga, met with the former chair of the Planning Commission about this, and also expressed on numerous occasions to the former Minister the need for work to commence with meaningful consultation to inform any conclusions. Unfortunately, with the release of the Statement of Position and recent Land Supply Reports the UDIA concerns have now been realised.

We are seeing for only the first time the type of analysis that the Department has been doing to conclude that the legislative thresholds for boundary adjustments are met or not. It also appears the Department has still not defined exactly how it would be applying the legislative test that relates to "the principle of urban renewal and consolidation of existing urban areas" and "adequate provision cannot be made within Greater Adelaide outside environment and food production areas to accommodate housing and employment growth over the longer term".

As mentioned in our cover letter, in addition the UDIA has sought legal advice which also disputes the interpretation in the SPC's Statement of Position that these questions are not required to be addressed (attached).

Status and use of Land Supply Reports

Included in the *Land Supply Report for Greater Adelaide Background and Context* paper in section 1.4 *How it will be used?* it states:

"This information will be used as an evidence base to determine the capacity of the land use planning system to provide an adequate supply of appropriate land to meet this demand"

and

"In particular, the report will provide base line data to help inform deliberations on the rezoning of land for residential and employment activities."

In addition to the previous comments raised above together with the detailed commentary on the reports further on, the UDIA is concerned that instead of these land supply reports being used to inform future policy frameworks, they are being used instead as assessment tools.

We believe that development approvals based primarily on supply alone ignore the nuances of differing products and the role of private sector competition. We are concerned future code amendments and development will be at risk because assessment will be framed in the context of the inaccurate available supply that these reports conclude.

One of the other concerns is the conclusion related to general infill. The UDIA strongly supports strategic infill within metropolitan Adelaide, and we commend the Department for the first time categorising the types of infill, we are however concerned about the level of supply predicted from general infill.

It is general infill that has caused considerable community angst and the SPC itself spent considerable time working on developing infill guidelines because of the backlash around the impacts of this unplanned development.

General infill development does not make a contribution to the enhancement or upgrading of existing infrastructure networks and it is particularly concerning the reliance on this as a key part of supply considering the Department's own *Background and Context* reports itself contains submissions by utilities who explicitly state that *"trunk infrastructure in more established urban areas is aged and was not designed to accommodate the increased demands currently being generated by urban infill"*.

The UDIA has long been aware of these issues, and in fact it was the UDIA who convened a roundtable with Minister Knoll, the SPC and major utilities in March 2019 to raise these very issues.

In contrast, greenfield development and strategic infill are required to make sure much of the infrastructure is properly planned and provisioned for with contributions made by developers. General infill only contributes to the Planning and Development Fund upon the creation of allotments with none of those proceeds addressing any of the local issues created.

Land Supply and EFPA Report – General Commentary

The Land Supply reports will be used as an input to the upcoming review of the 30 Year Plan. As such getting the data and analysis correct is of considerable significance. Whilst the reports have considered medium and high growth scenarios the report has not undertaken appropriate scenario analyses. These reports should be seen as a resource for other work not as an outcome in themselves. The process these reports are involved in should be about seeking growth opportunities in infill and greenfield locations. Maintaining or enhancing housing affordability is considered to be a key principle in the analysis of data and scenarios as well as the determination of policy responses.

The Land Supply reports are largely based upon June 2020 data. Since that time COVID19 and the Federal and State Government's responses have led to typical urban development patterns being changed somewhat. Whether these changes are short term or longer term in nature are unknown at this stage. As a result, the range of potential forecasts that need to be considered are wider than is typically the case.

The demand for the future creation of allotments and dwellings has relied upon the Centre for Population forecasts. Their Population Statement was issued in December 2020 which means much of the work would have been undertaken in the preceding months relying upon data that is probably close to 12 months old and not being aware of how the Federal and State Governments have subsequently dealt with COVID19 and in particular actual Net Overseas Migration (NOM) and Net Interstate Migration (NIM) in the past year. The assumed rapid rebound to having NOM being at around 100,000 pa in 2023 and 200,000 pa in 2024 might be somewhat ambitious given the recent four step plan announced by the Federal Government. If a delay in achieving those NOM numbers occurs then it is likely that there will be a reduction in demand in the mid 2020s from what has been stated.

We are also concerned about the reliance on dwelling commencements and completions as a measure of supply. The implications of this are that accurate data can be eighteen months to two years behind what the true supply levels are due to the time from signing a contract to building time due to civil construction etc.

Australia's response to COVID19 could well mean a greater demand from other countries' peoples seeking to immigrate to our country. As such depending on Federal Government policy with regard to allowing more migrants into Australia in a few years' time the NOM could easily be higher than stated.

The Population Statement has the NIM being negative for SA from 2022 onwards. The SA NIM had been slowly heading towards a 0 figure prior to COVID19 and has been a small positive number (98¹) in the last 12 months. "The State Government is attempting to attract more interstate migrants and bring ex-South Australians home by selling the lifestyle benefits, lower house prices and availability of high-tech jobs in the space, defence and hydrogen industries. It is using a rebadged \$200-million Jobs and Economic Growth Fund to target industries such as space, hydrogen, plant-based foods and defence with business development funding."² To assume the SA NIM will head back to around -3000 pa means the Growth State³ strategies the State Government has been putting in place to reverse that loss won't work.

With Adelaide being ranked the 3rd most liveable city⁴ in the world and the 3rd most honest city⁵ out of 75 world cities, the attractiveness of Adelaide has the potential to increase the demand from local and overseas sources beyond what has been considered in the reports. Housing affordability relative to other capital cities in Australia is a positive factor and is something that we can't afford to lose.

The High Growth scenario in Table 2 for 2020 – 2030 has a lesser growth than the previous decade. The UDIA is concerned that the High Growth Scenario is not as high as it plausibly could be. If demand is higher than forecasted then affordability issues will arise, and quickly. Enabling more land to be developed, whether that be for greenfield or infill, is a lengthy process. On average the time it takes for a greenfield development to go from a piece of rural land through the strategic planning process, then rezoning, then gaining development approvals to building the first dwelling is 13 years. This is largely due to the infrequent nature of strategic planning processes. If you get the strategic planning slightly wrong then adverse outcomes can easily arise.

¹ ABS – media release 4 May 2021

² The Urban Developer – 15 July 2021

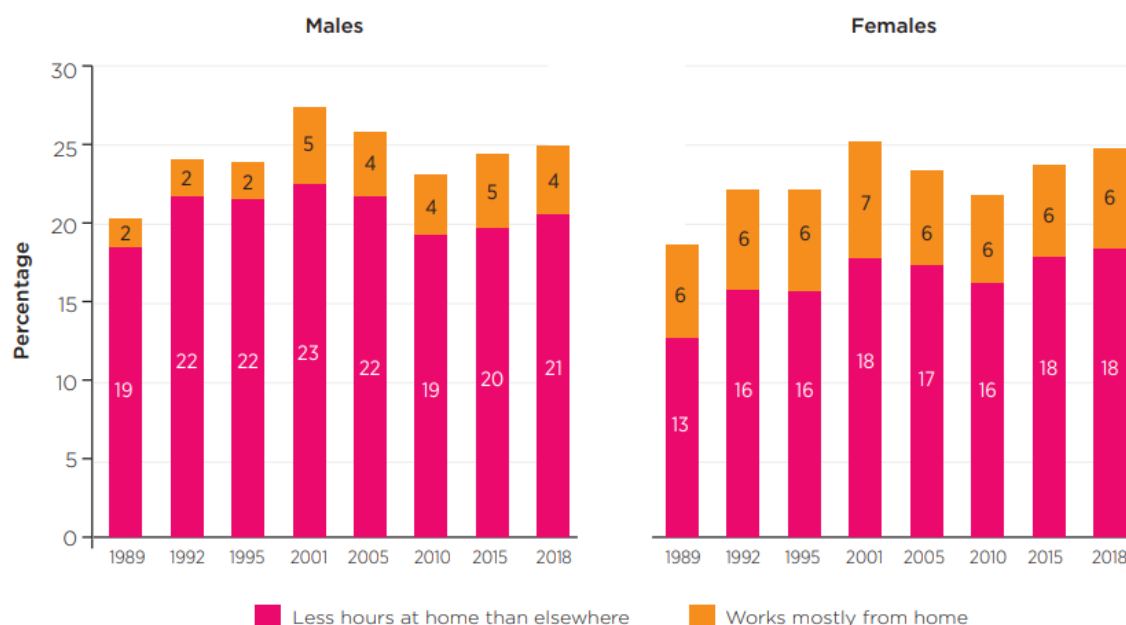
³ www.growthstate.sa.gov.au

⁴ Economic Intelligence Unit Global Liveability Index 2021

⁵ [TWINNER-20210304_Honest-Cities-Index_EN.pdf](#)

Whilst the report has a section on trends that are likely to influence urban development and the growth in peri-urban and regional towns near Adelaide is mentioned there is no mention of the work from home shift in the past year. The historical longer term 'works mostly from home' percentage has been around 5% of employees, with it being lower for males and higher for females as seen in the table below⁶.

Figure 10: Working from home, employed persons, 1989–2018



Note: Employed persons working at least 50% of their usual weekly work hours at home were classified as working mainly from home.

Source: ABS Working from home survey (1989, 1992 and 1995) and HILDA 2001 to 2018

Credit: Australian Institute of Family Studies 2020 (aifs.gov.au/copyright)

In February 2021 around 41%⁷ of employed people in Australia worked from home at least one day a week which is considerably higher than the approximately 20% in 2018. Should a minor but sizeable chunk of the workforce either mostly work from home (say 10 – 15%) or at least a day or two per week (possibly another 15 - 20%) there are considerable impacts on urban development and management of our urban areas that will arise. The report has not considered such a scenario and its impacts on expected demand in the 10 areas.

The household ratios used in Table 3 (p.22) range between 2.08 in the Inner Metro area to 2.28 in the Outer South. These appear to be averages across the areas as opposed to what actually occurs in new development in those areas, whether that be greenfield or infill. It is common for greenfield estates to have household ratios of around 3.0. Even the strategic infill development of Lightsview, which is a medium density infill project, has a household ratio considerably higher than 2.08.

With the Homebuilder grant boosting dwelling approvals and commencements substantially in the last 9 months the report should discuss what the impact of this will be on demand in the remainder of the 2020 – 2030 period.

It appears that the forecast lot/dwelling numbers have not considered the Planning and Design Code policy that was introduced on 19 March 2021. This is discussed further in the Infill section below.

⁶ [Australian Families Then & Now: How we worked \(aifs.gov.au\)](https://aifs.gov.au/then-and-now/how-we-worked)

⁷ ABS – media release 17 March 2021

Section 3 – Infrastructure, is considered to be, at best, a cursory glance at the issues associated with infrastructure. There is no analysis of the few issues mentioned in terms of the potential impacts on achieving greenfield and infill estimates of new lots/dwellings in the 10 areas that make up Greater Adelaide. For example, in Section 3.3 (Water Network) the issue of understanding infill hotspots and the consequential impact on required upgrades is mentioned but there is no analysis of what this means either at a whole area basis or a local government area basis or a suburb or part of suburb basis.

In Section 3.5 Electricity Network it states SAPN has a \$1.6B infrastructure cap until 2025. There is no information in the report about where that spend is to be located and what areas it might assist in improving the ability to deliver infill and/or greenfield development.

Section 3.6 Transport Network does not provide any useful information about what is to be provided where and whether that is going to assist with achieving estimated lot/dwelling numbers in the 10 areas.

The issue of funding models is complex. With the corporatisation and privatisation of infrastructure agencies in the past few decades the frameworks that SA Water and SAPN, in particular, have to operate within are subject to national rules as well as SA Acts which have other players, such as ESCOSA, involved. The individual frameworks are somewhat clunky when you try to bring together all the infrastructure providers to plan and deliver potential solutions.

It is considered critical to the making of policy and infrastructure investment decisions that capacity analysis at a small scale is essential in order to work out where the challenging areas are and what needs to be done to fix them. There is no point implementing planning policy changes that allows greater development potential (ie increased density) if the infrastructure can't cope.

Land Supply Report for Greater Adelaide – Greenfield

The categories in Table 1 are a good start however the Undeveloped Zoned category needs further refinement. Some land that is zoned is unable to be developed viably due to a lack of infrastructure capacity or the scope of the upgrade is so large it overwhelms the scale of the development making it not possible. Splitting it into two subcategories is worthy of consideration –

- . Undeveloped Zoned – infrastructure available
- . Undeveloped Zoned – Infrastructure unavailable/unviable

The vacant lots column in Table 2 is June 2020 data. Since that time virtually all vacant lots have been sold due to the Homebuilder grant, so more recent data is essential.

The High Growth Scenario dwelling demand on 38,300 lots to 2030 needs all the Development Ready and 25% of the Undeveloped Zone land to be developed. It is highly likely the demand won't be spatially distributed as per the supply in Figure 1. If anyone were asked in 2010 what the demand for lots would be in Mt Barker they might have said 100 lots pa. Over 600 lots pa are now being developed in Mt Barker in 2021. The market can change considerably over 10 years.

In the Outer North under the High Growth Scenario the report states there will be demand for 16,400 dwellings with 13,000 coming from greenfield estates. This leaves 3,400 to come

from other sources, presumably infill. If the infill numbers are not able to be achieved then more will come from greenfield sources. Notwithstanding the greenfield land available, some do face infrastructure issues.

Table 4 has substantial amounts of supply controlled by a limited number of estates which are expected to take beyond 2030 to be fully developed. The table gives the impression that all lots will be developed by 2030 in these estates.

We are unable to determine if the 43ha of land at Karbeethan was included in the land available for development as it is zoned Future Urban, however it has been allocated for district open space.

We are also unsure if the potential dwelling numbers in Virginia considered the impact of flood affected land.

The remaining approximately 290ha of land at Blakeview has been assumed to deliver 5655 dwellings at just under 20 dwellings per hectare in gross terms. This is considered to be a high estimate given the need for drainage networks, open space, a school and activity centres.

In the Outer South rezonings will need to occur as the High Growth Scenario demand is 4100 dwellings and supply is 4174 dwellings in the Development Ready and Undeveloped Zoned categories. At present supply beyond 2030 is dependent on development occurring at Aldinga, Hackham and Sellicks Beach. (Despite community groups trying to stop development at Sellicks Beach) Additional long term supply (eg: Bowering Hill) should be considered which will inevitably involve land in the McLaren Vale Character Preservation area.

In the Adelaide Hills area the demand between 2020 and 2030 is estimated at 300pa. Given Mt Barker is delivering 600 dwellings pa at present and there are other townships that are growing it is considered the demand levels are more likely to be in the order of 5 – 7000 in total. There is little land available in many of the townships at the northern end of the area (eg: Kersbrook, Gumeracha, Birdwood). No analysis of potential infill for any towns in the entire area has been undertaken. If the ongoing response to COVID19 is that peri urban areas are in greater demand then there will be a considerable supply problem in many towns.

There has been no analysis made as to the appropriateness of the Hills Face Zone boundary which traverses Outer North, Inner North, Inner Metro, Inner South, Outer South and Adelaide Hills areas.

The Fleurieu area is expected to run out of supply in some towns before 2030 without rezonings occurring as demand will not pan out as per supply availability.

In the Northern Plains and Barossa area the figures are incorrect for Freeling. A sizeable part of the town (not impacted by EFPA) is still zoned Rural yet is counted in as Undeveloped Zoned. This should be categorised as Future Urban Growth.

Land Supply Report for Greater Adelaide – Urban Infill

Having the split between strategic infill and general infill is a useful planning tool. The 2010 – 2020 decade provided 22,600 dwellings classified as strategic infill and general infill provided 49,600 dwellings.

It is the UDIA's position that the outcomes achieved through strategic infill sites is far superior to the vast majority of general infill sites. The concerns about infill development raised by the community⁸ have largely come from general infill (one into two dwellings). As such, finding more strategic infill sites should be a priority so that well planned, well designed and carefully implemented redevelopment projects are delivered. These could take the form of areas under multiple ownership.

The Land Supply report is heavily reliant on one into two developments so the factors that impact the ability to deliver such development are crucial.

The calculation of General Infill land supply by PLUS is summarised on p21 of Part 2 – Urban Infill. This set of assumptions are considered to be reasonably robust, however there are some nuances that might have been applied in those calculations that are not obvious. For example, how have the relevant zones been applied to assess redevelopment yields? Much of the Inner Metro area is subject to the Established Neighbourhood Zone and Suburban Neighbourhood Zone. The ability to increase density in these zones is very limited. It does not appear an analysis of minimum lot sizes and frontages against the zone policies as well as taking into account heritage area overlays, regulated and significant trees, tree planting requirements, on street parking, etc, was undertaken to see whether redevelopment is realistic.

The recently implemented Planning and Design Code policy relating to infill development has limited development potential, with a series of Missing Middle development typologies not being allowed in the vast majority of infill areas.

Even with the Planning and Design Code's General Neighbourhood Zone which covers large areas between Regency Rd and Grand Junction Rd and then around through the western suburbs (Inner North and Adelaide West areas) the zoning policy typically only allows one into two developments due to existing allotment sizes.

The limited Planning and Design Code policy regarding infill development on consolidated sites is unlikely to achieve much due to the policy metrics.

Anecdotally our members are already experiencing Councils using Deemed To Satisfy policy as the minimum policy when assessing Performance Assessed proposals.

In assuming 40% of sites with a Capital Value / Site Value Ratio (CVSVR) of 1.3 or less will be developed in the next 10 years, has consideration been given to the impact of existing lot sizes (e.g. removing lots below a certain threshold from redevelopment), proximity to noxious or licenced premises (e.g. Incetec Pivot in the past in Port Adelaide, Ol Glass in Kilkenny etc.) and the exclusion of all strata title and community title lots (which are almost impossible to amalgamate and redevelop)? The requirement for infrastructure upgrades to enable infill development to occur is not dealt with by using the CVSVR tool.

If suitable allowance has been made for these types of factors, then the issue comes down to whether a 40% redevelopment over a 10 year period across all geographic areas is realistic. Table 4, p13 suggests that the top general infill suburbs have typically operated well below this level in the past decade. It is considered that the 40% figure for CVSVR of 1.3 or less (and 20% for CVSVR of 1.3 - 1.8) is far too high.

⁸ State Planning Commission – Raising the bar on Residential Infill in the Planning and Design Code September 2020

Furthermore, the calculation represents an average across all sites meeting the CVSVR threshold, regardless of geographic location. This means that the Inner North, in particular, needs to deliver a very large number of general infill dwellings (28,285 compared with 11,100 for Adelaide West). This region will rely upon extensive redevelopment in areas such as Ridgehaven, Redwood Park, Banksia Park, Surrey Downs and Fairview Park, 15 – 20km from the City. Much of these suburbs are on sloping ground which will make it more challenging to deliver infill housing.

The progressive development of preferred locations may impact upon the take up of remaining opportunities for infill. Adelaide West has been a focus of redevelopment, but will provide fewer opportunities in the future (as reflected in PLUS projections). Will developers and more importantly purchasers readily shift to less prime infill locations?

The report has no analysis of infill capacity in the Adelaide Hills, Northern Plains and Barossa, Fleurieu, and Murray Bridge areas. Many towns in these areas have dwellings that are 80 + years old and are likely to have a CVSVR of <1.3. This potential supply needs to be taken into account.

The above issues relating to infill development are considered to mean that achieving the targets for general infill development stated in the reports are highly ambitious.

The strategic infill supply as shown in Figure 21 is heavily reliant upon three elements – Cheetham, CBD and the Corridor Zones. It is considered to be highly unlikely that a single developer estate such as Cheetham will deliver more than 300 lots per annum once the project actually commences. If the site is rezoned in 2022 and civil construction works begin in 2023 the project might deliver 1800 lots over the decade. Will the Adelaide CBD deliver 10,000 additional dwellings when at least the first third of the 2021 - 2030 decade is going to have much lesser numbers of overseas students. There are very few apartment projects being proposed at present, and given they typically have a 3 year development period it is likely that only 2 – 3000 dwellings might get developed. Other than Churchill Rd the corridors have been delivering about one hundred dwellings per annum. There are many businesses and residents along the corridors that are not ready to sell to a developer and this will continue to be the case. It is considered that 3 – 4000 dwellings might get developed along corridors in the 2021 – 2030 decade.

Whilst the Cheetham site has been identified as a future strategic infill site, why have other sites not be included? The Blair Athol / Kilburn renewal being undertaken by the South Australian Housing Authority is not mentioned. Other examples include the 15ha SA Water site on Frederick Rd West Lakes and the Metcash site at Kidman Park are known sites for future residential development even though they require a Code Amendment. We believe there are other sites that should also be considered. The report also does not mention how strategic sites were selected.

The remaining strategic infill sites in Table 9 total just over 12,000 dwellings/lots. Section 5 states the realistic short term dwelling potential from general infill is 68,200. However if the 40% assumption for the CVSVR of <1.3 is incorrect and is more like 20%, and the 20% assumption for the CVSVR lots between 1.3 – 1.8 is more like 10% then the general infill supply drops from 68,222 to 34,111.

With demand for infill in the High Growth Scenario (Table 6) across the Greater Adelaide Capital City area being 58,550 this essentially just meets the supply (under the scenario described above). If this scenario were to eventuate then there maybe price pressures arising which will make the delivery of affordable housing more difficult.

Land Supply Report for Greater Adelaide – Employment

There is a lack of analysis of how much land is needed for the population serving uses that typically locate on the periphery of centres, along arterial roads and in commercial and light industrial areas when population increases in areas (both infill and greenfield). These types of jobs are the largest number and are expected to remain so to 2030 according to Figure 10.

Commercial and Mixed Use Zones should be included in the analysis as they accommodate many jobs. Some areas in Inner Metro and Adelaide West and some in Inner South are no longer suitable for industrial and warehousing uses due to poor heavy vehicle access and the potential replacement jobs in knowledge intensive industries often don't see these locations as being suitable. There is no analysis for the Adelaide Hills, Northern Plains and Barossa, and Fleurieu areas. The section on Employment Trends is thin.

Environment and Food Production Areas Review 2021 – Statement of Position

Further to the earlier comments and attached legal advice, there are certain areas within Greater Adelaide that are expected to have supply challenges to a point that affordability issues will continue to arise. It is already almost impossible to develop three-bedroom housing within 10-15kms of the CBD that meet the affordable housing price point without external or internal subsidies. The lack of analysis of areas in terms infrastructure capacity is of serious concern.

The table below has used information from various tables in the Land Supply Reports and it shows that demand to 2036 is going to cause serious affordability issues unless land is rezoned to enable more development to occur in the Inner South and Fleurieu areas.

Area	High Scenario Dwelling Demand to 2036	Greenfield Development Ready/ Undeveloped Zoned lots	Realistic General Infill lots	Strategic Infill lots	Total lots
Outer North	25,300	46,300	4,434	0	50,734
Outer South	11,900	4,200	9,563	2,100	15,863
Inner North	20,600	0	28,285	12,400	42,685
Inner South	10,500	0	5,683	4,700	10,383
Adelaide West	24,500	0	11,100	20,000	31,100
Inner Metro	22,000	0	8,798	28,200	36,998
Adelaide Hills	6,200	13,000	359	300	13,659
Fleurieu	7,800	7,500	?	?	7,500+
Northern Plains / Barossa	3,500	4,700	?	?	4,700+
Murray Bridge	2,600	6,300	?	?	6,300+

If our analysis of a more realistic expectation of infill being able to provide supply is close to being correct then supply issues will occur in Inner South, Outer South, Fleurieu and Adelaide West, as well as the northern part of the Adelaide Hills.

There are a number of places where the EFPA boundary dissects cadastral boundaries (eg: One Tree Hill, Inglewood, Lobethal, Summertown, Mount Barker and Ashborne). The EFPA should not arbitrarily dissect cadastral boundaries as this can lead to confusion as to the process for any land division application.

Recommended Actions

The key objective for the State Government should be to have a better approach to having a quality land supply process that leads to having the capacity to deliver affordable housing in all areas. This will require better and more timely data analysis which should be much simpler to achieve now the e-planning system is in place. Updated data and analysis for the Land Supply reports is needed in the next year. We cannot wait another five years for this to occur.

The following actions are considered necessary:

- Revise the EFPA report once the Land Supply Reports are updated so that analysis of the supply / demand for each of the ten areas is undertaken
- The Outer South needs more than 1000 lots rezoned in the very near future to minimise the affordability issue due to a lack of supply.
- Long term supply (beyond 2030) needs to be considered in the Outer South beyond Hackham, Aldinga and Sellicks Beach.
- A review of the peri-urban township boundaries is required.
- A more refined analysis of urban infill potential is required.
- More strategic infill sites need to be identified and rezoned.
- Infill potential in peri-urban areas such as townships in the Adelaide Hills area is required to be investigated.
- Alternatives to the one into two infill developments are needed which should include masterplanning infill areas under multiple ownerships where individual development attends to the upgraded infrastructure requirements.
- The zoning policies across large areas of Adelaide West, Inner Metro, the southern half of Inner North, Inner South needs amending if demand for infill is to be achieved.
- Better capacity analysis of infrastructure is required in both infill and greenfield locations
- PLUS to devise and implement a housing demand and supply monitoring program using live data and reporting publicly on a quarterly basis in conjunction with the UDIA

Our ref: JAL/219311

29 July 2021

Mr Pat Gerace
Chief Executive
Urban Development Institute of Australia (SA)
Level 1, 26 Flinders Street
ADELAIDE SA 5000

By email: geracep@udiasa.com.au

Dear Pat

Environment and Food Production Areas Review 2021

You have asked me to consider the Environment and Food Production Areas (**EFPA**) Review being conducted by the State Planning Commission (**SPC**).

The Review process has included the publication on the PlanSA website¹ of various documents by the SPC including a Statement of Position published on 4 June 2021 (**SoP**) and a Land Supply Report for Greater Adelaide dated 9 June 2021 (**LSR**). The SPC has invited submissions on the review by pro-forma Submission Guide (**Guide**).

Unfortunately the SoP contains a number of inaccurate and incorrect assumptions and statements. The SoP (and the position the SPC has expressed in the SoP and the Guide) does not meet the requirements of the EFPA review set by the *Planning, Development and Infrastructure Act 2016* (**PDI Act**). While these reports do not necessarily constitute the entirety of the Review, they are wrongly tendentious in steering the SPC down a path that is at odds with the PDI Act.

The required review under the PDI Act

Section 7 of the PDI Act permits the SPC to vary the EFPA from time to time.² The SPC may only act to vary the EFPA if it has conducted an inquiry and reported to the Minister or conducted a "review" in accordance with section 7(10) and reported to the Minister.³

The SPC must conduct that latter "review" on a "5 yearly basis",⁴ hence (presumably) that review is now underway. The phrase "5 yearly basis" is not as precise as might be desirable, but must mean every five years after the creation of the EFPA by the

¹See https://plan.sa.gov.au/our_planning_system/instruments/planning_instruments/environment_and_food_production_areas.

² See section 7(8) of the PDI Act.

³ See section 7(9) of the PDI Act.

⁴ See section 7(10) of the PDI Act.

commencement of section 7(1).⁵ That would mean that the review must be conducted on or around 1 April 2022.

Importantly, “*the purpose of a review...is to assess the matters set out in subsection (3)(a)*”.⁶ This subsection therefore expressly requires the SPC to assess the matters detailed in that subsection.

Section 7(3) of the PDI Act

Section 7(3) is in the following terms -

“7(3) In making any decision under this section (following the establishment of the initial environment and food production areas under subsection (1)), the Commission must ensure that areas of rural, landscape, environmental or food production significance within Greater Adelaide are protected from urban encroachment and the Commission may only vary an environment and food production area if the Commission is satisfied—

- (a) *that:*
 - i. *an area or areas within Greater Adelaide outside environment and food production areas are unable to support the principle of urban renewal and consolidation of existing urban areas [SPC calls this test 1]; and*
 - ii. *adequate provision cannot be made within Greater Adelaide outside environment and food production areas to accommodate housing and employment growth over the longer term (being at least a 15 year period) [SPC calls this test 2]; or*
- (b) *that the variation is trivial in nature and will address a recognised anomaly [SPC calls this test 3].*

Review premature

The SoP is dated 4 June 2021, some 10 months before the fifth anniversary of the EFPA under section 7(1) of the PDI Act. It states that the SPC “announced the inaugural review” on 30 March 2021. Apparently, public consultation is open until 30 July 2021. The proposed date for the conclusion of the review is not apparent from the SoP or other documents on the SPC website. The SoP unhelpfully refers variously to a range of undefined terms that are in no way referable to the requirements under the PDI Act including “stage 1 review”, “stage 2 review” “Gate A”, “Gate B”, “Gate C”, “Gate D” and “gateway points” without nominating when the review will conclude nor when a report will be presented to the Minister.

None of those dates above seem reasonably proximate to the five year anniversary of the EFPA to reasonably constitute a review on a “5 yearly basis” as required by the PDI Act.

The SoP states (at the bottom of page 2) that -

⁵ On 1 April 2017.

⁶ See section 7(11).

“Stage 1 of the review is an investigation as to whether there is at least a 15-year supply of residential and employment land (Tests 1 and 2). To do this requires an analysis of Greater Adelaide’s land supply and demand. This analysis is contained in the Environment and Food Production Areas (EFPA) Review Report at Appendix 1 which is a companion document to this Statement of Position.”

The report in Appendix 1 of the SoP is undated. As far as I can ascertain, it seems to have been undertaken in 2020 and includes data up to June 2020 at the latest.

Clearly, that “Stage 1” is about 22 months premature of the “5 yearly basis”. In essence, it amounts to a three-yearly review.

The LSR is split into three parts dealing with greenfield land supply, urban infill land supply and employment land supply. While the LSR was published on 9 June 2021 it is clear from reading those reports that most of the data on which they are based is from 30 June 2020 or earlier. There are a few references to data as recent as December 2020. Again, much of this is premature, particularly so in the context of a review that is to occur every 5 years.

It must be acknowledged that data before the review date of April 2022 may well be relevant. Likewise, not all data is gathered at a frequency that aligns with the review date (eg the census occurs at a different cycle and on different years, ABS data is commonly gathered quarterly and published after the quarter has passed etc).

Notwithstanding those concessions, a review based on data and analysis that is 14-22 months premature cannot be “on a five yearly basis” as the PDI Act requires. It is difficult to see how public submissions (closing in July 2021) so early in the process properly assist the SPC either, although we would note that even consultation on the matters in s7(3)(a) at this stage would provide the Commission with information and data that is more current than the data on which it appears to have resolved its position on these matters.

The SPC has already and prematurely declared its position on this issue (at p 3 of the SoP) and has invalidly closed its mind to assessing anything other than the matters under s7(3)(b). This is plainly contrary to the requirements of the PDI Act and renders any decision to vary (or not to vary) the EFPA invalid on this basis alone.

Public Consultation

To compound the errors identified above, the SPC has by a process of public consultation published its investigation into the matters required to be reviewed under s7(3)(a) but purports to be closed to any consideration of relevant submissions in relation to that investigation. This is at odds with the primary objects of the Act which clearly anticipate community participation in relation to “*the initiation and development of planning policies and strategies*”, and more fundamentally, is at odds with the fundamental principles of administrative law.

In circumstances where its review is based on data that is 14-22 months premature, it is difficult to see how relevant submissions from members of the public that provide current information and/or data in relation to the matters required to be reviewed in s7(3)(a) could properly be ignored.

The scope of the review stated in the SoP

The SoP contains various declarations by the SPC about the scope of the Review that are important to emphasise.

“Commission’s Position

It is the Commission’s position that there is an adequate provision of land in Greater Adelaide to accommodate housing and employment growth over the next 15 years. Therefore the review will follow the Gate B pathway which leads on to Gate D and sets the scope of the review as Test 3 only - the consideration of variations of the boundary that are trivial in nature and will address a recognised anomaly. This position is based on the Commission’s assessment of the requirements under the Act, outlined in the Three Point Test and the evidence base presented in the EFPA Review Report appended to this Position Statement.” (page 3 of the SoP)

“Tests 1 and 2 in Section 7(3)(a) of the PDI Act are not satisfied as there is deemed to be sufficient supply of land to support housing and employment growth for at least the projected 15-year timeframe”. (page 4 of the SoP)

“Test 2 does not allow consideration of:

- Land supply analysis at a sub-regional level; OR*
- Specific forms of residential supply (ie. greenfield, township or urban infill); OR*
- Specific forms of employment land supply (ie. for heavy, light or special industry).”* (page 9 of Appendix 1 of the SoP)

These statements (with my underlining) reveal further errors in the SPC’s understanding of the task it is obliged by the PDI Act to undertake as detailed below.

Failure to review matters in s7(3)(a)

The SoP states that the Review will only consider variations of the EFPA boundary under “Gateway B pathway” or “Test 3” being those that are trivial in nature and will address a recognised anomaly (s 7(3)(b)). The SoP also states that the SPC will not consider variations to the EFPA in relation to section 7(3)(a)(i) and (ii).

Section 7(11) of the PDI Act provides that a review of the EFPA is to occur in order to “*assess the matters set out in subsection (3)(a)*”. Plainly, the review must involve an assessment of the matters set out in s 7(3)(a)(i) and (ii) above (which the SPC has labelled as tests 1 and 2). There is in fact no requirement as part of the 5 yearly review to consider “test 3” under section 7(3)(b). While the SPC is not precluded from considering it, the declaration only to consider the so-called “test 3” is patently missing the point that whatever else it does, the SPC must consider the matters in section 7(3)(a).

The SPC’s declarations not to follow its statutory obligations are plainly unlawful.

“Deemed” supply

The SPC cannot undertake a review of the matters in section 7(3)(a) if at the outset (indeed, well before the five years) it deems to close its mind to that very review.

This position statement is fundamentally and patently invalid and improper.

That “supply” (to paraphrase the test in section 7(3)(a)) is the very point of the review that the SPC is obliged by statute to undertake in or around April 2022.

Mischaracterisation of the matters under section 7(3)(a)

The SoP indicates that the Commission has re-framed the “tests” in (3)(a)(i) and (ii) and as such has mis-directed itself about the scope of the review. The statement at page 9 of Appendix 1 of the SoP suggesting a prohibition on the SPC considering land supply at sub-regional level or in relation to forms of residential or employment land (quoted above) is misconceived.

There is plainly nothing in section 7(3)(a) containing any such prohibition.

Firstly, the whole point of the Review in the context of section 7 is to consider whether there is any basis for variation to the EFPA regularly (every 5 years). That review necessarily should consider the EFPA in a comprehensive manner. That much is self-evident from the purpose of such a review, framed as it is, by the purpose of the EFPA in section 7 as a whole.

Secondly, section 7(3)(a)(i) refers to whether “*an area or areas within Greater Adelaide... are unable to support the principle of urban renewal and consolidation of existing urban areas*”. The SPC must consider whether there is “an area” – even one single area – unable to support the principle. The term “area” is not defined by the PDI Act. The spatial extent of an area, for the purposes of the analysis in section 7, is not specified in the Act nor is it precisely identified using the ordinary English meaning of that term. That means at least that an “area” is or can constitute a relatively small space, perhaps greater than a “locality” as understood by planners, but certainly less than a “region”. It certainly could be at the postcode or suburb scale if that is an appropriate scale of analysis.

In any event, that spatial pixilation (so to speak) is not prescribed and the PDI Act does not prevent the review considering an area or areas at a scale smaller than “sub-regional”.

Thirdly, the reference to the “principle” in section 7(3)(a)(i) is a reference to the “principle of good planning” in section 14(b) of the PDI Act which is stated in the following terms -

“In seeking to further the objects of this Act, regard should be given to the following principles that relate to the planning system established by this Act (insofar as may be reasonably practicable and relevant in the circumstances):

(b) urban renewal principles as follows:

- (i) preference should be given to accommodating expected future growth of cities and towns through the logical consolidation and redevelopment of existing urban areas;*

- (ii) *the encroachment of urban areas on areas of rural, landscape or environmental significance is to be avoided other than in exceptional circumstances;*
- (iii) *urban renewal should seek to make the best use (as appropriate) of underlying or latent potential associated with land, buildings and infrastructure;”*

Necessarily the assessment of that “principle” and the application of it to the Greater Adelaide area requires an assessment of everything within that Greater Adelaide area. Whether that be done street by street, area by area or region by region is not to the point. A thorough assessment of those matters within that space to see whether “an area” is unable to support the principle must at least be undertaken.

The SPC’s position (as stated in the SoP and recited above) that such analysis cannot relate to specific forms of residential land supply or specific forms of employment land supply finds no basis whatsoever in the PDI Act. Indeed, it is plainly contrary to the very matters set out in the principle. Without opening its mind to the various forms of housing or employment and the relative supply and demand, the SPC cannot hope to consider the matters set out in the principle. For instance, a consideration of the matters in section 14(b)(i) necessarily requires the SPC to identify the expected growth of cities and towns and the logical consolidation and redevelopment of urban areas. It is axiomatic that the SPC, using its expertise, will need to consider the multitude of social, demographic, economic and other factors affecting growth, consolidation and redevelopment. That must take into account the relative forces (put simply, supply and demand) for any identifiable forms of housing or employment (among other factors).

The statement that the review cannot interrogate those matters is just wrong. Notably, the LSR (see Background Document page 16-26 and Part 2 page 5-18) at least identifies some segregation at a broad level, albeit largely by the type of area (eg greenfield, peri urban etc) or purpose (eg general or strategic infill etc). The analysis does not appear to consider housing forms.

The problem with the artificial constraint the SPC has placed on the review is that (apart from being invalid) it will lead to a misdirected review. The SPC cannot determine that there is sufficient residential land supply if that land supply is largely confined to the Outer North, Mount Barker and Murray Bridge regions with very limited residential land supply in the Outer South, Northern Plains and Barossa, Fleurieu Peninsula areas and the Adelaide Hills (excluding Mount Barker). There may be demand for residential land in a region that has very limited supply and, therefore, the demand for residential land may demonstrate a need for a variation to the EFPA in that area despite the availability of residential land in other areas.

The same issue arises in relation to employment land supply. Even if there is adequate employment land available at the whole city scale, the location of it is plainly relevant to the issue of the “adequate provision” question in section 7(3)(a)(ii). Whether people need to travel vast distances to find employment is plainly a matter for analysis.

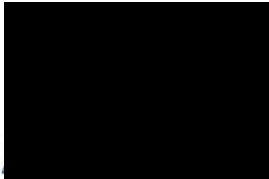
As referred to above, in my view it would be inappropriate for the SPC to determine there was sufficient employment land available when the employment land supply is largely confined to certain areas. There may be demand for employment land in areas where currently very little employment land is available outside the EFPA. The provisions of the PDI Act make it very clear that this must be considered by the SPC as part of the review

of the EFPA. Again, the use of the terms "area or areas" clearly demonstrate that the review must involve a consideration of the EFPA at a sufficiently small scale.

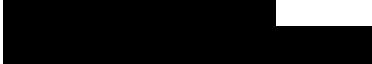
Summary

As presently framed, the review is premature and misconceived about its statutory scope and purpose. It cannot, on its present terms, constitute a valid exercise of the statutory requirement under section 7(10) and (11) of the PDI Act.

Yours faithfully

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James Levinson
BOTTEN LEVINSON

A black rectangular redaction box covering the contact information.

16 December 2022

Expert Panel
GPO Box 1815
Adelaide SA 5001

Dear Expert Panel Members,

Re: Planning System Implementation Review

Thank you for providing the Urban Development Institute of Australia SA (UDIA) with the opportunity to respond to the Expert Panel conducting the Planning Reform Implementation Review.

In addition to the deputation submission previously made, please find attached a full submission addressing questions of the panel and discussion paper topics. This includes a summary of *Key Recommendations* which we believe are the most critical and essential matters that must be addressed with a sense of urgency to address the current housing crisis. Further information can also be found in submissions previously made by the UDIA to the State Planning Commission (attached).

Since the expert panel review of the planning system in 2012, the subsequent introduction of the *Planning Development and Infrastructure (PDI) Act 2016* and the implementation of the new electronic Planning and Design Code, many significant and important enhancements have been made to ensure our state's planning system is modern, user friendly and a solid foundation for adaptive and flexible policy and assessment.

While there are many areas for improvement, we do not believe that the system is “broken” nor requires extensive changes, particularly as it relates to the interface between authorities, proponents and the community.

We do however firmly believe there is a critical imperative to consider the broader objectives in totality because without doing so, a number of the technical and detailed questions posed could conceivably result in a series of suggestions and policies that would seem worthwhile when considered in isolation, but in the broader context could have more wide-ranging unintended consequences. It is only when considering the wider context and the broader goal or “problem to be fixed” can the best solutions be identified.

While many of the Planning System Implementation Review discussion points consider the delivery of the new system, the UDIA notes that the terms of reference and much public discourse often refers to strategic planning policy and directions. We are pleased that the Expert Panel has recognised this and invited a broad range of matters where it states in the first discussion paper, “...the Panel is, of course, interested to hear about all ideas for reform that may benefit the South Australian community and encourages you to raise any matters that have not otherwise been canvassed in this Discussion Paper”.

As outlined in previous UDIA submissions to the State Government and most recently in the UDIA's **Grow.Reform.Build.** document published prior to the 2022 State Election, as a membership body we are uniquely placed to see and experience first-hand what South Australian's value most about the places they live.

We also see and experience each of the different and competing interests of policy makers, agencies and levels of government, and how they are often at odds with each other. From a state-wide perspective, we see that without necessary and thorough planning, development can adversely change the character of our existing suburbs and streets. We see the impacts of a lack of investment in public transport, roads and trunk infrastructure and how this neglect can quickly lead to the same congestion and 'growing pains' being experienced interstate.

The UDIA believes that a key focus for our state now and into the future should be for South Australia to continue and unquestionably be the place where people can still achieve the great Australian dream.

Home ownership means different things to different people — for some it is in a compact denser neighborhood or apartment, for others it is a place where you can have a trampoline, trailer and a dog.

For those that can't afford to invest in purchasing a home, the certainty that comes with knowing a place to rent is affordable and available, in an area that they are attached to or familiar with, can make a significant difference to their overall wellbeing.

We know that a place to call home offers an undeniable sense of safety, security, and stability — a fundamental human need as defined in Maslow's Hierarchy of Needs — and is a proven pathway to intergenerational prosperity.

We hope that these key objectives continue to remain in the forefront of the Expert Panel's considerations.

Yours sincerely,



Pat Gerace
CHIEF EXECUTIVE

KEY RECOMMENDATIONS

Land Supply

The UDIA seeks to ensure there is a pipeline of development-ready land and has concerns relating to inadequacies in existing land supply measurements.

Our comments regarding the current framework are:

- Schedule 4(1) and section 7 of the Planning, Development and Infrastructure Act (PDI) obligates the State Planning Commission to review land supply at least once every five years and we believe the five-year review period is too infrequent.
- Land supply issues combined with changing economic circumstances have caused a housing affordability crisis and these factors make the timeframe for reviews more urgent.
- Land supply and “development ready” land reports do not adequately factor in critical delivery elements such as infrastructure delivery, approval process delays and the political decision-making process.
- The current monitoring of land supply is inefficient, and the Urban Development Institute of Australia (UDIA) proposes a different model (currently under development in conjunction with National Housing Finance and Investment Corporation).

A substantial amount of information on this matter is included in the UDIA submission to the State Planning Commission on the review of the Environment and Food Production Area (attached).

Infrastructure Coordination

All of society benefits from new infrastructure. Even those far away from a new piece of major transport infrastructure may indirectly benefit, while those living, working, or investing in close proximity benefit both directly and indirectly.

- The early identification and adequate scoping of urban infrastructure is lacking
- The UDIA believes the cause is that no single or appropriate authority has been tasked with the early planning and scoping of urban infrastructure for growth areas.
- The infrastructure challenges are caused by an absence of a coordinated vision and the sharing of responsibilities between state and local government
- A lack of Government control leads to blame and responsibility being novated to the development sector
- The PDI Act and other pieces of legislation are deficient in this area, both in the identification and measurement of what is required and the different views of councils about the infrastructure they require.
- Infrastructure SA has not made this a key area of focus and is also relying on an under-resourced State Planning Commission to take the lead
- Corporatised and privatised delivery of trunk infrastructure through regulatory regimes that are governed by different legislation does not presently allow for the best coordination, pricing and efficient delivery of key infrastructure for an innovative urban development.

In the absence of a coordinated comprehensive government owned and regulated infrastructure delivery system it is appropriate that we revisit third party access rules for all essential infrastructure. If South Australia is to have a user pays system, it cannot exist in the absence of competitive alternatives to lower costs for developers and ultimately consumers.

The UDIA believes that the state government should commit to bringing all disparate interests together so that efficiencies can be unlocked and more and improved infrastructure can be delivered. The UDIA suggests:

- Include in the Infrastructure SA charter an increased focus to better recognise the relevance of urban development to the state economy and to consider a suite of infrastructure projects directly aimed at unlocking identified areas for growth.
- Create an Urban Futures Infrastructure task force comprising representation from Infrastructure SA, State Planning Commission, state government agencies, local government, utilities and the UDIA to investigate capacity analysis of essential infrastructure in the greater metropolitan areas for both infill and growth areas to unlock areas for growth.
- Develop agreed terms of reference for an independent review of competition and pricing mechanisms related to core urban development infrastructure and consider amending third party access arrangements and/or state government guidelines to increase efficiency of infrastructure delivery and improve housing affordability.

Infrastructure Schemes

The UDIA played a key role in the impetus for a new alternative in the PDI Act for the apportionment of infrastructure costs in new development areas with multiple landowners.

- UDIA's suggested provisions for infrastructure schemes and a Scheme Coordinator did not get adopted in the drafting of the PDI Act
- The UDIA strongly advocates for a Scheme Coordinator to manage infrastructure schemes and be involved in the early identification and scoping of urban infrastructure for growth areas
- The Scheme Coordinator would be a nominated person with a strong charter to be measured against to ensure appropriate performance, together with appropriate support staff and authority to resolve negotiations with other state or local government authorities, service authorities, developers and landowners.
- The UDIA suggests better planning through Infrastructure SA and a taskforce, enforceable guidelines for developer contributions, up-front funding and use of a Scheme Coordinator for infrastructure schemes to begin resolving infrastructure delivery issues within South Australia.
- A detailed UDIA submission in relation to infrastructure schemes operation and the use of development deeds was made in the recent investigation conducted by Deloitte on behalf of Planning and Land Use Services (PLUS) (attached)¹

New 30 Year Plan

- UDIA recommends that the new 30-Year Plan for Greater Adelaide be developed by establishing a tripartite (local and state government and private developer) task group to develop terms of reference and coordinated with infrastructure capacity

¹ UDIA Submission on Developer Deed Review and Infrastructure Schemes, 2022

- The UDIA strongly supports the continued supply of master planned neighbourhood-type zones which provide the necessary flexibility for developments to evolve and respond to the housing market.
- UDIA's position is that strategic infill is a preferable way to increase housing density and diversity over general infill.
- The new 30-Year Plan should identify more large-scale strategic infill projects and work to unlock medium to higher density projects in appropriate areas.
- Strategic infill provides optimum opportunity to master plan the regeneration of areas, better infrastructure co-ordination and urban outcomes
- The UDIA continues to call for improved and more detailed planning, based on better data and an understanding of what people need and value, and how the market is likely to respond.
- Well planned redevelopment with scale will be more sustainable and can include open space and opportunities to upgrade infrastructure.
- The UDIA does not support the inclusion of infill-type policies (that are used to address higher densities in existing suburbs) in master planned areas as it unnecessary and counterproductive to good urban outcomes where innovation and the benefit of master planning can achieve even better outcomes
- The 30-Year Plan and PDI Act should address housing affordability by acknowledging and addressing the hidden cost of land and housing imposed by taxation, regulatory charges and development delays.

Role of Urban Infill

- UDIA believes that without necessary and thorough planning, ad-hoc general infill development can adversely change the character of our existing suburbs and streets and note that much of the public discussion and policy questions raised in this review relates almost entirely to general infill.
- The UDIA believes that the impact of all potential policy recommendations resulting from this should be accompanied by a commensurate consideration and action to increase alternative land and housing supply measures.
- The UDIA believes there should be a reduction in general infill development and refocus on strategic infill in identified sites and this should be carried out together with a more realistic appraisal of the development ready pipeline for major greenfield developments
- Modelling should investigate what significant reductions in general infill will mean as the Government recognises considerations such as character and heritage areas, increases in rates of tree retention, and reduction of on-street parking.
- The Planning and Development Fund expenditure should be reflective and commensurate to where the contributions are coming from, so that a fairer system is in place to spend the money where it is needed. Clear and transparent reporting of all open space contributions made to the Planning and Development Fund and expenditure from it should be made annually by post code.

Development Assessment and Planning and Design Code Improvements

- A number of suggestions have recently been provided to PLUS as part of 'Miscellaneous Technical Enhancement Code Amendment' (MTECA). This submission is attached for reference.²
- One of the continuing concerns most often voiced by the sector is the matter of referrals and the power of 'Direction' afforded to referral agencies effectively making them a 'quasi' planning authority with the power to veto any determination of the relevant authority.
- Each agency effectively acts as a separate authority, requiring multiple approvals from multiple authorities for the one development application. The power of 'Direction' also provides significant power to agencies to 'leverage' their authority to achieve outcomes beyond the purview of the referral.
- One example are referrals related to the Environment Protection Authority (EPA). We reiterate our previous concerns that site contamination policy suite 'front loads' the assessment of site contamination to require considerable cost and delay before planning consent is issued. The UDIA seeks that Practice Direction 14's referral trigger (and potentially the regulations) put that requirement as a condition at the 'back end' once planning consent has been granted.
- Other referrals and Planning and Design Code matters requiring attention are Native Vegetation Clearances, Code Amendments and the application of Affordable Housing Overlays
- The dysfunction of these referrals and the nature of the process adds cost, reduces efficiency, and does not improve the outcomes for affordability, native vegetation etc.

² UDIA Submission to the State Planning Commission on Miscellaneous Technical Enhancement Code Amendment (MTECA)

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1. Planning and Development Legislation

1.1. Land Supply ³

The UDIA believes that there should be an adequate pipeline of development ready land and have concerns relating to inadequacies in existing land supply measurements.

Schedule 4 of the PDI Act identifies the obligations of the Minister for Planning ('Minister') and the State Planning Commission ('Commission') to set performance targets in relation to any goal, policy or objective under a state planning policy or planning agreement. Based on the current aspirations and targets of the state planning policies and of the 30-Year Plan for Greater Adelaide, there is faculty to review the available land supply across *Greater Adelaide*, and to subsequently implement changes to accommodate population growth, and respond to housing choice and affordability.

Schedule 4(1) of the PDI Act, obligates the Commission to review, at least once every 5 years, the housing and land supply targets outlined in the state planning policies.

These are coupled with the land supply review requirements applicable to Environment and Food Production Areas under section 7 of the PDI Act.

The five-year review period is simply too infrequent. Through our observations, this is, and will continue to be, a foundational issue to the inadequacies in land supply across Greater Adelaide and prolong the housing affordability crisis.

Land supply issues and lack of affordable housing has been further exacerbated over recent years by the sharp changes in economic, social and environmental influences (national and global). In our opinion, this further exposes the lethargy of the review process and lack of legislative responsiveness. We are also of the understanding that the Commission is inadequately resourced (including dedicated staff and independent research capability), for what is arguably one of the most important roles of the State.

We also suggest that the current land supply reviews rely upon population forecasts and land use patterns across Greater Adelaide as a whole, rather than assessing sub-regions of Greater Adelaide or specific markets. We have previously raised concerns about the use of Land Supply Reports and the assumptions underpinning the reports. Whilst it is pleasing that the assumptions are in the process of being revised, the approach of assessing land supply holistically (i.e., across the entire Greater Adelaide regions) as compared to a sub-regional level remains highly problematic.

Modelling should account for a reduction in general infill to reflect more character / heritage areas, more tree retention, reduction in on-street parking losses etc. The realistic rate of development of major land developments should also be factored into the assumptions. While an area may have over 15 years' land supply, development on the ground will take far longer due to the lengthy process of making allotments 'development ready'. Furthermore, the delivery of land in known supply pipelines can be compromised by delays in Code Amendments / approvals processes / political decisions / government infrastructure coordination. A further reduction in yield should be applied to address these factors.

Rather than shaping Adelaide in the most appropriate way to take account of new trends in living patterns or addressing affordability to maintain Adelaide's livability, it appears the reports have significant weight in the decision process for rezoning land. Incorrect assertions about excess land supply have too often been used as a reason for constraining or preventing new housing development because of the government's reluctance to invest in infrastructure, which unfortunately is at the expense of the primary driver in maintaining housing affordability, namely competitive market tension.

³ UDIA Submission on Land Supply Reports and State Planning Commission EFPA review.

We note that Section 6 of the PDI Act makes provision for the Minister to establish a sub-region (including within Greater Adelaide). We are of the strong opinion that sub-regions should be established otherwise Greater Adelaide as a planning region will continue to under deliver upon the long-term strategic land supply and housing needs, based on outdated assumptions. Without the establishment of sub-regions within Greater Adelaide, South Australia will continue to face a great hurdle in being able to quickly respond to affordability challenges in the future — challenges already being experienced in many parts of Greater Adelaide.

The UDIA has been very clear that it does not support the inclusion of the Environment and Food Protection Areas within legislation. The framework is flawed and designed so that there would never be any changes. To our knowledge there has been no scientific and objective analysis of the current boundary as it relates to soil types, average rainfall, agricultural yields, or native vegetation which one could reasonably expect would be considered when implementing such a restriction. As a result, we are now faced with a situation where the supply of land and affordability of housing in certain areas is at a very significant risk as a result.

We recommend the Government devise and implement a dynamic housing demand and supply monitoring program using live data and reporting publicly on a quarterly basis in conjunction with the UDIA. This, in conjunction with the ability to amend growth boundaries for specific regions, sub-regions and townships on an as-needs basis, is the key to unlocking land supply and addressing the affordability crisis.

The UDIA strongly supports strategic infill within metropolitan Adelaide, as distinct from general infill. It is general infill which has caused considerable community angst and been a principal driver behind the Commission's implementation of overly onerous planning guidelines for infill development.

Alternative forms of infill development need to be considered in order to support housing diversity and choice and support the delivery of affordable housing. Generally, such should primarily remain within the realm of strategic infill, as we are of the view that master planned developments provide the best opportunity to manage issues of sensitivity to the community.

Identifying future infill development opportunities should be a key responsibility of the State Planning Commission, ensuring a strategic lens is applied. Many Councils are not undertaking strategic planning which has forced proponents to lead Code Amendments in order to unlock identified opportunities.

The UDIA submit that the current numerous impediments to rezoning land for strategic infill need to be addressed, as this is limiting the delivery of alternate and affordable housing forms.

1.2. Infrastructure⁴

1.1.1 Infrastructure Planning

The UDIA believes that the state government should commit to bringing all disparate interests together so that efficiencies can be unlocked and more and better infrastructure can be delivered.

All of society benefits from new infrastructure. Even those far away from a new piece of major transport infrastructure may indirectly benefit, while those living, working, or investing in close proximity benefit both directly and indirectly.

⁴ UDIA Submission on Developer Deed Review and Infrastructure Schemes, 2022

- The early identification and adequate scoping of urban infrastructure is lacking
- The UDIA believes the cause is that no single or appropriate authority has been tasked with the early planning and scoping of urban infrastructure for growth areas.
- The infrastructure challenges are caused by an absence of a coordinated vision and the sharing of responsibilities between state and local government
- A lack of Government control leads to blame and responsibility being novated to the development sector
- The PDI Act and other pieces of legislation are deficient in this area, both in the identification and measurement of what is required and the different views of councils about the infrastructure they require.
- Infrastructure SA has not made this a key area of focus and is also relying on an under-resourced State Planning Commission to take the lead
- Corporatised and privatised delivery of trunk infrastructure through regulatory regimes that are governed by different legislation does not presently allow for the best coordination, pricing and efficient delivery of key infrastructure for an innovative urban development.

In the absence of a coordinated comprehensive government owned and regulated infrastructure delivery system it is appropriate that we revisit third party access rules for all essential infrastructure. If South Australia is to have a user pays system, it cannot exist in the absence of competitive alternatives to lower costs for developers and ultimately consumers.

The UDIA believes that the state government should commit to bringing all disparate interests together so that efficiencies can be unlocked and more and improved infrastructure can be delivered. The UDIA suggests:

1. Include in the Infrastructure SA charter an increased focus to better recognise the relevance of urban development to the state economy and to consider a suite of infrastructure projects directly aimed at unlocking identified areas for growth.
2. Create an Urban Futures Infrastructure task force comprising representation from Infrastructure SA, State Planning Commission, state government agencies, local government, utilities and the UDIA to investigate capacity analysis of essential infrastructure in the greater metropolitan areas for both infill and growth areas to unlock areas for growth.
3. Develop agreed terms of reference for an independent review of competition and pricing mechanisms related to core urban development infrastructure and consider amending third party access arrangements and/or state government guidelines to increase efficiency of infrastructure delivery and improve housing affordability.

1.2.2 Infrastructure Schemes

Developer contributions require enforceable guidelines so that contributions are fit for purpose, fair and relate to the development project in question. The process and expenditure must be clear and transparent, reviewed, reported and audited.

Various infrastructure funding models including value capture, infrastructure levies and the mechanics of developer contributions can have an effect on housing affordability and the first home buyer in new developments. Infrastructure levies / developer contributions are ultimately a tax on the first home buyer in new developments (costs are generally transferred from developer to purchasers), with other taxes compounding (e.g., stamp duty). Increases, mismanagement or over-pricing of these levies/contributions strikes at the heart of affordability for new home buyers.

The UDIA played a key role in the impetus for a new alternative in the PDI Act for the apportionment of infrastructure costs in new development areas with multiple landowners. Unfortunately, during creation/drafting of the PDI Act, and subsequent legislative amendments, much of the UDIA's suggested provisions for infrastructure schemes and a Scheme Coordinator, were watered down due to political pressure from other interest groups that were vehemently opposed to any form of developer or landowner contributions.

The UDIA does not believe that any wholesale reform is required, rather the knowledge and real-life experience gained in past developments such as at Mt Barker can be used to modestly refine the methodology for infrastructure deeds with more successful outcomes.

The early identification and adequate scoping of urban infrastructure is sadly still lacking. The UDIA believes this is largely because no single or appropriate authority has been tasked with the early planning and scoping of urban infrastructure for growth areas.

A detailed UDIA submission in relation to infrastructure schemes operation and the use of development deeds was made in the recent investigation conducted by Deloitte on behalf of Planning and Land Use Services (PLUS) (attached)⁵

The UDIA strongly advocates for a Scheme Coordinator to manage infrastructure schemes and be involved in the early identification and scoping of urban infrastructure for growth areas. The Scheme Coordinator would be a nominated person with a strong charter that they could be measured against to ensure appropriate performance, together with appropriate support staff and authority to be able to resolve negotiations with other State or Local Government authorities, service authorities and developers/landowners.

Despite having the largest balance sheet and ability to source funds at cheaper rates than other parties, there has been a reluctance for Government to fund infrastructure up front. Having no up-front capital or funding to commence the construction of infrastructure is impractical and inefficient as it results in the need to wait for the receipt of development contributions to then fund infrastructure.

Investment in infrastructure needs to be made up-front, with the developer contributions to follow later. The timing and outlay of infrastructure can still be managed appropriately so it is completed sensibly and efficiently. Early creation of infrastructure unlocks greater development potential, which generally translates into earlier receipt of developer contributions from more active development.

It is important for SA to have a range of tools available to manage developer contributions and infrastructure delivery. For instance, for very large Government land parcels specific negotiated indentures can be the most effective, as was used for projects like Mawson Lakes or Golden Grove. For growth areas with multiple land holdings and infrastructure traversing across the various land holdings, the infrastructure deeds can be effective when set-up and managed appropriately. Infrastructure schemes envisaged by the UDIA could also be effective. For smaller, simpler projects an individual Council Separate Rate could be the most efficient method.

The establishment of Joint Planning Boards under section 36 of the PDI Act and the use of the *Urban Renewal Act 1995* are other options to consider.

1.2.4 Vesting of open space and roads

The present planning system enables councils to control, block or take leverage over land division developments by withholding consent to the vesting of roads and open space, including in circumstances

⁵ UDIA Submission on Developer Deed Review and Infrastructure Schemes, 2022

where the council is not the relevant planning authority for the development.

The PDI Act contains a number of provisions relating to applications for the division of land and associated matters such as the provision of land for open space purposes (and/or a monetary contribution in lieu of the provision of open space land).

These provisions of the PDI Act have been relied upon by certain councils to frustrate developments by refusing to consent to the vesting of roads and open space, or only consenting to the vesting upon particular conditions.

Various assertions have been made about the operation of these provisions, including that:

- councils retain absolute discretion about whether or not to accept the vesting of roads and open space, and on what terms;
- the decision on vesting is to be made independently to the grant of planning consent and land division consent;
- the decision on vesting may be a decision capable of being exercised by the elected members, or other arms of a council than its Assessment Panel and planning staff, taking the decision outside of the planning system altogether;
- the decision on vesting is largely unconstrained by the Planning and Design Code or any particular planning policies or objectives;
- the State Planning Commission (and SCAP as its delegate) lacks the power to ultimately determine the configuration of roads and open space in a land division for which it is the relevant authority; and
- the decision on vesting may not be appealable to the ERD Court and the ERD Court may lack the jurisdiction to determine the issue in the course of a planning appeal.

Issues relating to vesting are being experienced by a number of developers and appear to be increasingly utilised by councils. In some cases, there are real concerns that the provisions are being used for ulterior purposes.

The interpretation being adopted by some councils fundamentally undermines the ability of a relevant authority (including Council or Regional Assessment Panels, SCAP, the Minister and potentially the ERD Court) to determine land division applications.

This has led to circumstances where a relevant authority (such as SCAP) has granted planning consent, upon, amongst other things, being satisfied with the provision of open space, only for a council to purport to decline to have the open space vested in the council. Councils are taking the position that by declining to consent to the vesting of open space (and other land) they are capable of frustrating the planning consent granted by the relevant authority.

This interpretation has the potential effect of rendering the planning decision of the relevant authority futile pending the attitude of the council to the proposed development.

The issue is capable of being fixed through relatively simple amendments to sections 102 and 198 of the PDI Act.

1.2.5 Model Bonding Agreements

Bonding Agreements and Infrastructure Agreements with councils are commonly used by developers to secure the release of new certificates of title in a land division before the associated civil works are fully complete. However, the process of negotiating Bonding Agreements can in itself be a source of

additional cost and delay for developments. It is not uncommon to see councils seek to require that developers continue to maintain public reserves well after a development is completed.

For well over 20 years the planning system in South Australia has provided the ability for the Minister to publish a model bonding agreement for use by developers and councils across the State. That power, which is currently found in Regulation 87(3) of the PDI (General) Regulations has never been acted upon.

The UDIA would support discussion around the creation of a model bonding agreement for use across the sector.

Infrastructure Schemes

1. What do you see as barriers in establishing an infrastructure scheme under the PDI Act?

A key barrier to establishing an infrastructure scheme is that they require up-front funding in order to ensure the early provision of infrastructure. The current system does not provide any certainty when key infrastructure will be delivered, noting that the responsibility for delivery often includes developers, state agencies and Councils.

2. What improvements would you like to see to the infrastructure scheme provisions in the PDI Act?

A Scheme Coordinator is essential to the delivery of infrastructure schemes. A Scheme Coordinator would act as a facilitator and final arbiter of the terms of agreement for infrastructure schemes for recommendation to the relevant Minister.

The Act could also be amended to formally require strategic urban infrastructure planning to be undertaken and integrated with Regional Plans and preferably at a Sub-regional level. Timeframes for delivery need to be identified and reinforced. Such provides greater stakeholder certainty and confidence in the planning process.

Ultimately, the Government needs to find a way to ensure the up-front funding is available to build infrastructure, with the receipts from developer contributions to follow. The establishment of a State Fund and associated provisions around the use and allocation of this fund, together with a model for developer contributions should be explored.

3. Are there alternative mechanisms to the infrastructure schemes that facilitate growth and development with well-coordinated and efficiently delivered essential infrastructure?

There are numerous successful examples of infrastructure agreements being established through a traditional deed and associated land management agreement. The schemes in place at Two Wells and Roseworthy are good examples. Such are examples where:

- Infrastructure investigations were comprehensive;
- Trigger points for infrastructure provision were clearly established;
- A funding mechanism was established;
- A third-party managing authority was established;
- Responsibilities for infrastructure provision were clearly identified;
- A dispute resolution process was established with provision for an independent expert to make determination.

1.3 New 30-Year Plan for Adelaide (Regional Plans)

The UDIA strongly believes that the new 30-Year Plan for Greater Adelaide must be developed by establishing a tripartite (local and state government and private developer) task group to develop terms of reference and coordinated with infrastructure capacity.

Regional Plans and any Sub-regions should be premised on multiple scenarios and build in appropriate growth opportunities in locations which are sought by the market. They must address the over reliance in housing supply of single dwelling subdivisions and instead proactively and urgently increase land supply in market responsive locations including greenfield and large-scale brownfield areas.

It is the UDIA's position that strategic infill is preferred over general infill as this provides optimum opportunity to master plan the regeneration of areas, resulting in better infrastructure co-ordination and development outcomes. Such can assist in optimising the urban tree canopy, on-street car parking provision and the like.

A new 30-Year Plan could recognise more large-scale strategic infill projects and work to unlock medium to higher density projects in appropriate areas. Better planned and more sustainable developments can include open space and provide for suitable infrastructure upgrades. Similarly, there should be a more strategic commitment to revitalising the City of Adelaide with more residents.

The 30-Year Plan and PDI Act must address housing affordability. Our housing market is the third least affordable nationally — falling behind Brisbane and Perth. The two largest contributors to this problem from a state perspective is the failure to plan for growth and the hidden cost of land and housing.

The major reason for diminishing affordability is the hidden cost of land and housing imposed by taxation, regulatory charges and development delays which reduce feasibility and increase the purchase price. Historical underinvestment by State and local governments is funded by the next generation of homeowners who are already facing tougher home ownership conditions than their parents ever did. There must be a continuing requirement for a State Government review of the cost impact of all policy decisions on construction and development standards. The Government must create focus on housing affordability and ownership by considering appropriate amendments to the PDI Act and associated regulations.

There is opportunity for Regional Plans and Sub-regions to consider open space planning with consideration to the areas that are experiencing high degrees of infill but have inadequate public open space. The Planning and Development Fund expenditure should be reflective and commensurate to where the contributions are coming from, so that a fairer system is in place to spend the money where it is needed and in the suburbs from which it has been collected. Clear and transparent reporting of all open space contributions made to the Planning and Development Fund and expenditure from it should be made annually by post code.

The new Regional Plans should be dynamic and consider various growth scenarios so that they can adapt to market conditions and changing environments. Housing affordability must be a key priority.

Strategic Planning

1. What are the best mechanisms for ensuring good strategic alignment between regional plans and how the policies of the Code are applied spatially?

Regional plans are by nature a high-level strategic document, whereas the zones applied through the Code are at a more refined level.

One step to ensure greater strategic alignment would be for sub-regional plans to be established which would provide a higher level of detail as compared to the Regional Plan.

Within identified growth areas, there is a potential need for Structure Plans and/or Concept Plans to be established in order to:

- identify key infrastructure obligations which are either planned or required;
- facilitate improved infrastructure planning by all stakeholders, including utility providers and Councils;
- provide greater understanding and confidence to all stakeholders in respect to infrastructure provision;
- reduce reservations associated with the rezoning of land to accommodate future growth.

Infrastructure co-ordination is also a key issue in respect to infill development. Stormwater infrastructure, typically the responsibility of Councils, is a frequent impediment to infill development as there has been an underinvestment in assets over many years.

A critical element for the success of our recommendation is the adequate resourcing and commitment to implement the relevant infrastructure.

2. What should the different roles and responsibilities of State and local government and the private sector be in undertaking strategic planning?

Under the Development Act, Councils were responsible for preparing Strategic Directions Reports which aimed to ensure that local Development Plans aligned with the Regional Plan.

This obligation did not carry through into the new system, in essence due to the introduction of the Code, where the State Planning Commission is responsible for its preparation and maintenance - s.65(2). This is coupled with the Commissions responsibility for the establishment of the various Planning Instruments as prescribed in Part 2, Division 2 of the PDI Act.

As a consequence of the above, legislatively Councils have no apparent obligation to undertake strategic planning. This presents an issue given Councils are the owner of key assets which support urban growth, including but not limited to roads, public open space and stormwater networks. This creates a disconnect between land use planning and infrastructure planning.

We note that the Act makes provision for Joint Planning Agreements to be entered into. A Joint Planning Board can also be established in conjunction with any such Agreement.

We see this as a potential tool to manage planning at a sub-regional level, for the key purpose of improving the integration between regional planning strategy, infrastructure provision and the spatial application of the Code.

We understand that Joint Planning Agreements and associated Joint Planning Boards are not mandatory. Consideration could be given to formalize such a process where sub-regions and associated joint planning agreements and boards are required to be established.

We see this as a model to enforce improved infrastructure planning and integration with land use planning.

A key to the success of such a model would be for all relevant infrastructure providers such as SA Water (water and sewer) and DIT (roads) to be a party of the Joint Planning Agreements.

In earlier responses we noted the benefit of appointing an Infrastructure Scheme Co-ordinator for the delivery of infrastructure schemes. Such a role could be expanded as an Infrastructure Co-ordinator with broader powers to interface with any Joint Planning Agreement/Joint Planning Board arrangements.

The above are all recommendations to assist with improved infrastructure planning.

The UDIA considers that the private sector needs to retain a key role in the procurement and delivery of infrastructure. The sector is often able to deliver infrastructure faster and cheaper than the relevant agencies.

There is much merit in allowing developers to deliver the key infrastructure on their land parcel. It is attractive to developers to be able to construct key infrastructure in advance of a later delivery date by the relevant authority. However, the developer should be appropriately reimbursed for taking on the associated procurement and finance risks.

Early concept designs for infrastructure are required to allow this to happen. But early concept designs should be undertaken early in any case to enable appropriate calculation of costs of infrastructure, securing of finance, scheduling for implementation and fair apportionment of development contributions.

Contestability of all infrastructure works should be a requirement, to encourage the private sector to deliver infrastructure on a competitive bid basis.

1.4 Development Assessment

As part of the Phase 3 Submissions to the Draft Code, the UDIA raised concerns that under the PDI Act, there are a total of 24 Referral Triggers and 22 of these allow Referral Agencies to have the power of 'Direction' (i.e., the Agency can direct a decision (refusal)). There are two (2) referral triggers under the new system where the Agency can only provide advice to the Relevant Authority who must have 'Regard' to this advice.

The UDIA supports the changes made under the PDI Act that comments of Referral Agencies must be contained to 'matters for which a referral was made' and the referral Agency will be accountable to defend an appeal against a decision directed by that Agency.

Whilst we support the Referral Authority limiting their comments to matters for which the referral was made and we support referral authorities being accountable to defend determinations that have been directed by that authority, we reiterate our concern regarding the 'veto' power of Referral Authorities that have the power of 'Direction.'

The UDIA takes this opportunity to again express concern in relation to the power of 'Direction' afforded to referral Agencies effectively make an Agency a 'quasi' planning authority with the power to veto any determination of the Relevant Authority. Each Agency effectively act as a separate authority – effectively requiring multiple approvals from multiple authorities for the one development application. The power of 'Direction' also provides significant power to Agencies to 'leverage' their authority to achieve outcomes beyond the purview of the referral.

To challenge a referral Agency would also involve considerable time (6-12 months) and money (\$50K-\$100K) for an applicant to initiate an appeal through the Courts. In most cases, this time and cost imposition would be beyond the threshold of feasibility of most development projects which would limit

the real opportunity for an applicant to appeal and overturn a determination of a Referral Agency. Further, an applicant appealing to the

Environment Resource and Development (ERD) Court would be challenging the weight of evidence and authority of a State Agency, which is likely to also limit an applicant's appetite to seek a successful resolution through the courts.

The UDIA recommend an amendment such that referrals allow for a Regard comment as opposed to mandatory Direction. If the status quo remains, then the assessment process will become cumbersome and compromised. If the planning authority does not follow the comments made by the referral agency, then the application could be sent to SCAP for concurrence, similar to the previous *Development Regulations 2008* requirements for State Heritage matters in Schedule 8 of the Development Regulations.

Ultimately it should be for the planning authority to balance the competing interests that arise between a developer, the community and government agencies.

Where a referral agency has a power of direction the exercise of the direction should occur as a 'one stop shop' avoiding the need for further approvals.

Where separate approvals are required under other legislation, an applicant should have the ability to defer those matters for later assessment.

Environment Protection Authority Referrals

The UDIA have made several detailed submissions in the past in relation to the State Planning Commission regarding site contamination policies, current wording of Practice Direction 14 and associated referral to the EPA.

The resolution of site contamination issues is rarely a question of 'if' and more often a question of 'how' (e.g. by what practical remediation solutions). Site contamination issues will rarely if ever go to the heart of whether planning consent should be granted, but has the propensity to delay that process dramatically. The urban development industry needs a nimble and cost-effective process for dealing with site contamination so as to turn land over quickly to meet the growing demand for housing in the State.

The UDIA believes that site contamination remediation can generate both public and private benefits by releasing previously contaminated land and facilitating urban regeneration which can result in significant economic, environmental and social benefits.

Site contamination is a complex and broad issue impacting large areas of land across the State, and the planning system is only one part of the Government's integrated approach to the management of site contamination. However, as it stands, many people wanting to rejuvenate land are often subject to lengthy and onerous remediation processes.

We reiterate our previous concerns that the current site contamination policy suite 'front loads' the assessment of site contamination resulting in considerable cost and delay before planning consent is issued. Applicants will variously need to spend in the order of \$5,000 on a "Preliminary Site Investigation (PSI)" report, \$20,000-\$200,000 on a "Detailed Site investigation" (DSI) and \$20,000-\$150,000 on an audit before knowing that they have a consent. The delay in undertaking a DSI (even without an audit) can be many months, sometimes a year. Assuming (again, without accepting that it should be part of the planning system) that an assessment is warranted, this level of integration should occur only once planning consent is in hand.

The UDIA seeks that Practice Direction 14's referral trigger (and potentially the regulations) put this requirement as a planning condition at the 'back end' once planning consent has been granted.

This could for example be achieved through the Reserved Matter power under section 102(4) of the PDI Act.

Native Vegetation

The UDIA agrees with the Expert Panel that the introduction of the 'Native Vegetation Overlay' and the 'State Significant Native Vegetation Overlay' has strengthened the retention of native vegetation on development sites.

However, there is a disconnect when lodging a Development Application on a site that is located within the Native Vegetation Overlay, as the Development Application Processing System (DAP) requires you to select from the following three options:

Native Vegetation Declaration

I declare that:*

- ☐ The proposed development will not or would not, involve the clearance of Native Vegetation under the Native Vegetation Act 1991, including any clearance that may occur in connection with a relevant access point and/or driveway, and/or within 10m of a building (other than a residential building or tourist accommodation), and/or within 20m of a dwelling or addition to an existing dwelling for fire prevention and control, and/or within 50m of residential or tourist accommodation in connection with a requirement under a relevant overlay to establish an asset protection zone in a bushfire prone area.
- ☐ The application is supported by a report prepared in accordance with Regulation 18(2)(a) of the Native Vegetation Regulations 2017 that establishes clearance is categorised as 'low level clearance' (for more information, please use the link below*). Please upload the report in relation to native vegetation on the next page.
- ☐ No report or declaration supplied with this application.

[*Regulation 18\(2\)\(a\) of the Native Vegetation Regulations 2017](#)

It is recommended that the DAP system be modified to enable a fourth option that allows you to nominate that:

"A report has been prepared and identifies that moderate/major clearance of native vegetation is proposed, but is supported."

The 'fact sheet' for Native Vegetation on the PlanSA Website also does not provide a definition for 'low level clearance' which would therefore require an expert's opinion. It is recommended that a clear definition for 'low level clearance' be provided to support the streamlined processing of applications and a clear guidance to applicants. As it currently stands, most applicants do not possess the necessary expertise to confidently or accurately make the above declarations and applicants are therefore required to engage expert vegetation consultants to assist them in this process at considerable expense. Providing further guidance and clarity to applicants as part of detailed fact sheets may assist in reducing time and cost delays associated with the need to engage native vegetation consultants.

The UDIA would support investment in technology that enables identification of the location of native vegetation without the requirement to obtain expert consultant advice to lodge a development application. This information should be readily publicly available (i.e. via a layer on SAPPa).

In instances where applications trigger referral under the relevant Overlays, there is also still a requirement for the applicant to undergo a separate assessment and approval process under the 'Native Vegetation Act.' Applications that trigger referral should result in a combined planning consent and native vegetation approval to reduce 'red tape' and expedite the overall combined approval processes.

Code Amendments

When the PDI Act was introduced the UDIA supported placing the emphasis on consulting on changes to the planning rules upfront and then (once adopted) allowing landowners to exercise their private property rights in accordance with the rules. Since the implementation of Phase 3 of the Code, UDIA Members have advised the Proponent Initiate Code Amendment system has unlocked underutilized land

to be rezoned generally to address critical housing supply shortages and demand for changing land uses in a particular area.

The UDIA continue to advocate that emphasis should be placed on consultation occurring at the Code Amendment stage to enable a streamlined development assessment process for land uses that are expressly envisaged within the (once adopted) zone, without time delays and costs that may be occurred via third party appeal rights to challenge decisions made against that policy once it has been set and determined. The UDIA supports the State Planning Commission ('the Commission') guiding principles of the Engagement Charter being namely that if an application meets all the prescriptive rules and the land use is envisaged, that the application should receive a streamlined and assured approval without notification and third-party intervention.

Affordable Housing overlays

In the UDIA's submission for the Miscellaneous Technical Enhancement Code Amendment (MTECA) we raised concerns in relation to draft wording from the South Australian Housing Authority (SAHA) in the Affordable Housing Overlay referral trigger as drafted below. Our concerns were that this wording would result in all applications proposing 20 or more dwellings or residential allotments being referred to the Minister.

Current drafting in MTE Code Amendment:

"Except where the applicant for the development is the South Australian Housing Authority (or an agent acting on behalf of the South Australian Housing Authority), residential development or land division other than land division that reflects the site boundaries illustrated and approved in an operative or existing development authorisation for residential development under the Development Act 1993 or Planning, Development and Infrastructure Act 2016):

- a) that comprises 20 or more dwellings or residential allotments and the development is intending to provide affordable housing; or*
- b) where the applicant is seeking to access one or more of the planning concessions outlined in the Affordable Housing Overlay DTS 3.1, 3.2 or 4.1; or*
- c) that is described in the application documentation as including affordable housing of any number of dwellings or residential allotments."*

We reiterate the UDIA's strong support for the MTECA wording as drafted for consultation that the proponent must demonstrate an intent to provide affordable housing or be seeking to access one of more of the planning concessions to trigger a referral to the Minister. However, we would like to take this opportunity to again express our concern that the adopted wording remains vague and subject to interpretation especially the phrase 'seeking to access' which may be construed by a Relevant Authority as an automatic trigger for referral of the application (to the Minister responsible for administering the *South Australian Housing Trust Act 1995*). We again seek that the wording in the Affordable Housing Overlay referral trigger be amended to the following:

Suggested wording:

"Except where the applicant for the development is the South Australian Housing Authority (or an agent acting on behalf of the South Australian Housing Authority), residential development or land division (other than land division that reflects the site boundaries illustrated and approved in an operative or existing development authorisations for residential development under the Development Act 1993 or Planning, Development and Infrastructure Act 2016):

- a) *that comprises 20 or more dwellings or residential allotments and is described in the application documentation as intending to provide affordable housing; or*
- b) *that is described in the application documentation as intending to provide affordable housing and the applicant is seeking to access one or more of the planning concessions outlined in the Affordable Housing Overlay DTS 3.1, 3.2 or 4.1; or*
- c) *that is described in the application documentation as intending to including affordable housing for any number of dwellings or residential allotments."*

Public Notifications and Appeals

1. What type of applications are currently not notified that you think should be notified?

Generally, UDIA members consider the triggers for notification to be very robust. However, in some circumstances, applications are notified even where the type of development proposed is expressly envisaged in a zone. A wider review to identify these discrepancies is encouraged, and preferably a switch back to the listing only the types of development that should be notified rather than the current model which only lists forms of development that do not need to be notified (we expand on this point further below).

2. What type of applications are currently notified that you think should not be notified?

As part of the UDIA SA's submissions to Phase 2 and Phase 3 of the Code, we outlined that where a land use is envisaged and reasonable in its design and aligned with the performance outcomes of the Zone, an application should not be subject to public notification.

A example of this is where a land use 'element' is listed in a Zone's DPF 1.1 (i.e. it is an envisaged land use), it is not always listed as being 'excluded' from public notification in Table 5 of the Zone (even though it is listed as being an envisaged land use). Public notification should not be required for land uses identified in DPF1.1 of a Zone.

The UDIA SA raised concern during the Phase 2 and Phase 3 consultation periods that the approach of 'specifying types of development being excluded from public notification' would most likely result in more types of applications going on public notification, even if there are lengthy lists of development that are excluded.

UDIA Members experience has proven this to be the case, where departures to garage/dwelling wall lengths on boundaries have triggered public notification even if the element of non-conformance is minimal. This has sometimes led to protracted assessment timeframes where notification has resulted in public submissions who wish to be heard at the relevant Council Assessment Panel meeting.

Another example relates to 'Neighbourhood Type Zones' where a community facility, educational establishment or preschool which exceeds 1 building level requires public notice, even where the zone expressly anticipate dwellings of two building levels (which are excluded from public notice).

It is recommended that the structure of the notification triggers be flipped so that all forms of development are 'excluded' from notification other than specifically identified type of development which are then listed in the Procedural Matters (PM)- Notification table within each Zone. Only those specifically identified types of development would then be required to undergo notification

within the Zone, such as where development exceeds the specified building height or is clearly an unsuitable land use within in a zone.

3. What, if any, difficulties have you experienced as a consequence of the notification requirements in the Code? Please advise the Panel of your experience and provide evidence to demonstrate how you were adversely affected.

UDIA Members have expressed concern in deciphering 'Column B' (exceptions) of Table 5 – Procedural Matters – Notification. In order to determine if a land use outlined in 'Column A' as being 'excluded' from notification is actually not excluded from notification (note the double negative i.e. the land use actually is required to be notified) members are required to either open two versions of the Code on their screens or to scroll back and forth between the DTS/DPF provisions and Table 5. For example:

Class of Development (Column A)	Exceptions (Column B)
Any development involving any of the following (or any combination of any of the following): (f) dwelling	Except development that: 1. Exceeds the maximum building height specified in.....DTS/DPF 2.1
Alternation of or addition to any of the following (or of any combination of any of the following): (a) community facility (b) educational establishment (c) pre-school	Except for development that does not satisfy... DTS.DPF 1.6

User experience has raised concern with the time and complexity involved in order to determine if an application will require public notice. This could be rectified by a formatting change where the DTS/DPF referenced is listed in Column B.

4. What, if any, difficulties have you experienced as a consequence of the pathways for appeal in the Code? Please advise the Panel of your experience and provide evidence to demonstrate how you were adversely affected.

The UDIA supported the previous Expert Panel on Planning Reform's December 2014 'The Planning System We Want' recommendation that there is a focus shift to setting clear directions and policies up front and encourage communities to be involved when their participation is most meaningful during the Code Amendment (rezoning process). In members experience, the community consultation undertaken as part of the Code Amendment process provides meaningful engagement on zoning and policy framework to adjoining property owners/occupants.

The current level of appeals being limited only to applicants rather than third parties assists in streamlining the application and avoids vexatious litigants.

5. Is an alternative planning review mechanism required? If so, what might that mechanism be (i.e. merit or process driven) and what principles should be considered in establishing that process (i.e. cost)?

The current planning review mechanisms enables an aggrieved applicant to either have a review of an Assessment Manager's Decision to the relevant Assessment Panel (Council, Regional or Commission) or directly to the ERD Court. Under the PDI Act, the relevant Assessment Panels are (with the exception of one (1) elected member) comprised of Accredited Professions to a Level 2 standard. This ensures a review by a Panel (i.e. CAP) is being undertaken by a panel who have the expertise and experience to hear and considers such matters. In addition, the existing ERD Court system has suitably qualified and experienced Commissioners. The UDIA support the existing review and appeal avenues without further need for yet another administrative review 'tribunal.'

The UDIA would however support a more streamlined ERD Court process, particularly in relation to the timeframe taken for planning appeals to be determined. It is not uncommon for planning appeals to take over a year to be determined, with the parties waiting up to 8 months to receive judgment following a hearing. This delay, in combination with the expense of the process has meant that the ERD Court is not readily available as an avenue to resolve an impasse with a relevant authority, for applicants and residents alike.

Despite having three full time Commissioners and a number of allocated Judges the ERD Court has, as at 13 December, published just 17 judgments in 2022. Of these only a handful are 'planning appeals'. It is apparent that a large amount of time is being spent on a relatively small number of matters.

There are clear opportunities to reform the ERD Court processes to make it a more accessible and efficient part of the overall system. These could include empowering the Court to take a more active role in refining the issues in dispute (avoiding every element of a development being considered) or legislating a timeframe for delivery of judgments.

Accredited Professionals

1. Is there an expectation that only planning certifiers assess applications for planning consent and only building certifiers assess applications for building consent?
2. What would be the advantages of only planning certifiers issuing planning consent? What would be the disadvantages?
3. Would there be any adverse effects to Building Accredited Professionals if they were no longer permitted to assess applications for planning consent?

UDIA members have expressed there is some time benefits to enabling Building Accredited Professions to assess some applications for planning consents (akin to the former 'Residential Code' scheme under the rescinded *Development Act 1993*). Time efficiencies can be gained by the Building Certifier being able to issue a combined Planning Consent and Building Consent thereby fast-tracking approvals for developments that 'tick the box.' As such the UDIA supports the current accredited professional framework that enables building certifiers to assess certain classes of development for planning consent (such as Deemed-to Satisfy) forms of development.

Impact Assessed Development

1. What are the implications of the determination of an Impact Assessed (Declared) Development being subject to a whole-of-Government process?

Ensuring and maintaining transparency and accountability in public decision making is strongly supported by the UDIA. Whilst streamlining assessment processes is fundamental to ensuring the timely delivery of critical housing products, for more significant 'major projects' our members recognised the importance of ensuring all Ministers that may be impacted by a project (i.e. infrastructure, economic development, environment etc) are able to review and comment on a proposal to ensure the best outcome for all South Australians. The UDIA recognize and support the Expert's Panel suggesting of re-introducing a Cabinet Review Process for 'Impact Assessed (Declared)' forms of development as recommended by the Select Committee of Parliament's inquiry into the Kangaroo Island Port application as an appropriate mechanism to ensure the appropriate level of scrutiny for State significant forms of development. This should be appropriately balanced however to ensure that developments are expedited and not needlessly complicated or delayed.

Deemed Consents

2. Do you feel the deemed consent provisions under the PDI Act are effective?
3. Are you supportive of any of the proposed alternative options to deemed consent provided in this Discussion Paper? If not, why not? If yes, which alternative (s) do you consider would be most effective?

The UDIA in its 'Grow, Reform Build' blueprint identifies creating 'an efficient planning and approval mechanisms to minimise 'red tape' as being essential to the urban development sector. Accordingly, the UDIA support the Expert Panel's suggestion of a 'Deemed Approval' in instances where an applicant has received both planning and building consents for an application, but the relevant authority (Council) has either delayed or refused to issue the final development approval.

Members would also strongly support the Expert Panel's suggestion of enabling (by way of a Regulation amendment) an accredited professional to issue the final development approval. This would avoid 'double handling' by relevant authorities (i.e. Council) and delays associated with the administrative issue of another Decision Notification Form onto the PlanSA system. Given the accredited professions (building) needs to ensure consistency between planning and building consents, it logically follows that once both planning and building consents have been granted Development Approval could then also be granted by the accredited professional.

Members have identified that whilst the current 'Deemed Consent' mechanism is supported, it is mainly used as a 'last resort' to obtain a decision from the relevant authority who has exceeded their statutory timeframes. There is a perception of 'maintaining working relationships' with officers at the relevant authority (i.e. Council) and this may lead to a reluctance within the sector to issue Deemed Consent notices. Concern is also raised that the current 'deemed consent' function does not 'commence' until a development application has been 'verified' under Regulation 53(2) by the relevant authority. It is recommended that a review of the verification timeframes together with Deemed consents process is undertaken to ensure the combined verification and assessment process is undertaken as expediently as possible.

Relevant authorities retain the ability to appeal against a Deemed Consent notice and there are no consequences for a relevant authority where this occurs. The UDIA considers that where a relevant authority appeals against a Deemed Consent notice and is unsuccessful in overturning the Deemed Consent it should be required to pay the costs of the applicant who has suffered unnecessary delay through the actions of a relevant authority.

Verification of development applications

1. What are the primary reasons for the delay in verification of an application?

As outlined in the UDIA SA's submission to Phase 3 of the Planning and Design Code, currently the Verification Process (5 business days) that occurs at the beginning of every development application has no express consequence attached should the planning authority not undertake this verification process within the 5 day timeframe. During the Phase 3 P&D Code Consultation UDIA SA raised concern that the planning authorities may take longer to verify applications and where verification is delayed, the lodgment and assessment process will not have officially commenced, meaning it is not possible for the applicant to instigate the Deemed to Consent process. This effectively leaves applications 'in limbo'.

This concern has unfortunately become a reality since the implementation of the Code with a large percentage of relevant authorities failing to verify applications within the 5 business day period. Experience from UDIA members concurs with the anecdotal evidence cited by the Expert Panel that a lack of appropriate resourcing by relevant authorities leads to delays in the verification process, with no consequence for the relevant authority and no means for an applicant to rectify the delay.

The UDIA is aware that there is currently no University within South Australia that provides an Undergraduate Planning degree. The only pathway into the profession within South Australia is via the Master of Urban and Regional Planning at the University of South Australia, which was postponed in the previous two years due to the Covid-19 pandemic and only recommenced at the start of 2022. The lack of new qualified town planners entering the profession, combined with those leaving the profession (either via retirement or moving to alternative career pathways) has resulted in a critical shortage of qualified planning staff to administer the system.

The UDIA SA would strongly encourage the State Government to work with the Universities to provide greater career pathways options into the planning profession in order to accommodate the staffing requirements of relevant authorities to expedite the assessment system. Funds collected by the CITB could potentially be used to improve the quality and accessibility of training provided to the planning profession.

UDIA SA members have also cited unrealistic and unjustified request for information and documentation outside the information required under Schedule 8 of the PDI (General) Regulations from relevant authorities during the 'verification' period. There is a view (rightly or wrongly) that these requests during verification are a 'workload management' tactic, used to delay lodgment and 'stop the clock' on the process to give the relevant authority more time. Alternatively some relevant authorities are requesting an extensive list of possible items anticipated by Schedule 8 without reference given the limited scope expressed by Regulation 31.

Such examples of unjustified requests for documentation during verification include:

- Request for software details of a carpark free space 'loop' calculator which was essentially a 'box' that was located with a landscaped area which otherwise would not constitute 'development' if not associated with the signage;
- Details of anticipated waste volumes for a childcare centre;
- Details of estimated time it will take a waste vehicle to collect bins from a childcare centre and the footpath waste contractors would utilise to wheel bins from enclosure to the collection vehicle;

- Details of the mature height of landscape plan species to be shown on the landscape schedule;
- Requests for added notations on elevations regarding the height of obscure glazing to manage privacy concerns;
- Requesting a DRAINS model and MUSIC model in addition to the provided stormwater management plan; and
- Clarifications of traffic generation rate used in expert consultant's traffic assessment report.

Given the above examples, the UDIA would strongly support the Expert Panel's suggestion of amending the Schedule 8 – Plans and documentation requirements required for verification.

UDIA Members have also raised verification delays in instances where there is debate as to whether Council or SCAP is the relevant authority (i.e. a new application to vary an application previously issued by SCAP). In such instances when an application is submitted, the DAP system only enables the selection of the relevant Council as the 'relevant' authority. Council then has to manually re-assign the application to SCAP as part of the verification process. This would be overcome if the DAP system allowed 'SCAP' to be directly selected as a relevant authority.

2. Should there be consequences on a relevant authority if it fails to verify an application within the prescribed timeframe?

It is considered that if planning authorities do not meet the Verification timeframe, then the Assessment Process timeframe must commence, and the fees are not payable. It is understood that this would require an amendment to the Regulations. The wording in Regulation 53 (2) regarding payment of fees will need to be taken into consideration. At present there appears to be a gap in the overall process between Regulations 31 and 53 which needs addressing.

Other options that could be considered include self-verification or ERD Court costs penalties where it is necessary for the Court to determine or direct the verification decision.

3. Is there a particular type or class of application that seems to always take longer than the prescribed timeframe to verify?
4. What would or could assist in ensuring that verification occurs within the prescribed timeframe?
5. Would there be advantages in amending the scope of Schedule 8 of the PDI Regulations?

Reserved Matters

In the UDIA's submission for the Miscellaneous Technical Enhancement Code Amendment (MTECA) we highlighted recommended improvements in relation to Section 102(3)-(5) of the PDI Act which enshrines the power for some matters relating to the assessment of a proposed development to be reserved for later assessment:

“(3) A relevant authority may, in relation to granting a planning consent, on its own initiative or on application, reserve its decision on a specified matter or reserve its decision to grant a planning consent—

(a) until further assessment of the relevant development under this Act; or

(b) until further assessment or consideration of the proposed development under another Act; or
(c) until a licence, permission, consent, approval, authorisation, certificate or other authority is granted, or not granted (by the decision of another authority), under another Act.

(4) A relevant authority must allow any matter specified by the Planning and Design Code for the purposes of this subsection to be reserved on the application of the applicant.

(5) Any matter that is not fundamental to the nature of the relevant development may, subject to the Planning and Design Code, be reserved under subsection (3) or (4)."

We take this opportunity to reiterate that the ability for an applicant to nominate certain matters which are not fundamental to the question of whether Planning Consent can be granted is potentially of great utility. It does not avoid assessment of those matters but rather enables an applicant to obtain a decision on whether Planning Consent is warranted without incurring unnecessary costs on matters which are not fundamental to that decision.

The applicant, not the Relevant Authority, bears the risk that the reserved matters cannot ultimately be achieved for some reason. The planning system contemplates that the Code will specify certain matters which an applicant may request to be reserved for later assessment.

We confirm the matters which in our opinion would be suitable to be included in the Code for the purposes of section 102(4) of the PDI Act include:

- Site Contamination;
- Stormwater;
- Wastewater disposal;
- Landscaping;
- Native Vegetation clearance; and
- Final materials and finishes.

Obviously there will be times when an applicant wishes to include matters like landscaping and final finishes in the initial application in order to demonstrate the merits of a development. There will be other times when those matters have little bearing on the decision to grant or refuse Planning Consent.

On this basis, we again recommend that an amendment to Table 2 of Part 5 of the Code to specify that the above matters are matters that an applicant may request to be reserved for later assessment.

We also take this opportunity to highlight that the current DAP system does not currently have the functionality to enable applicants to upload information to address reserved matters and/or conditions of consent. It is recommended that the DAP enhancement be included to enable a more streamlined and trackable post-approval functionality.

OTHER

Response to requests for Further Information

- When an applicant responding to a Request for Information (RFI) from the relevant authority on the DAP system, the application remains 'on hold' until such a time that the relevant authority

confirms whether or not the applicant has sufficiently resolved the RFI content. UDIA Members understand that this is a 'loophole' that some Councils use because there are no assessment timers to manage this process. Often it appears to be caused by Council's planners awaiting to hear back from their engineers or other internal departments. This can result in an applicant's response to an RFI being uploaded but not being 'confirmed' by the relevant authority for several weeks (during which the assessment clock has stopped), adding to delays in assessment that are not picked up by the DAP system clocks. The UDIA recommended that the DAP system be modified so that the relevant have five (5) business days to confirm whether the applicant has sufficiently addressed the RFI once a response has been submitted before the application returns to be 'live.'

Shared Access to Applications on DAP system

- The UDIA support the use of technology to enhance the accessibility of the planning system for all members of the urban development industry. Members have identified the current DAP system provides access to one entity who then must share access with others (i.e. project team) who often will need to access requests for further information, stamped approved plans, decision notices etc. A recommended future enhancement of the DAP System should enable greater flexibility for project team members to access application information without the reliance of the submitter to 'share' the application with them.

2. Urban Infill Policy

The UDIA recognises the benefits of a consistent set of planning policies established through the Planning and Design Code for the development sector.

As stated in the Panel's report, South Australia's infill policy is new, and the outcomes are yet to be fully realised. We recognise that infill development has been a key policy area of reform given the significant community interest in this issue.

Master planned developments must be treated differently from general infill given the opportunities to coordinate and plan in a way that delivers liveability, sustainability and to provide for the range of housing our community needs.

While the overall planning outcomes may be consistent for infill and greenfield development, the tools available to achieve master planned developments are much broader as they are not constrained by compatibility with existing character, road networks, open space provision or an existing public realm.

The UDIA strongly supports the continued supply of master planned neighbourhood-type zones which provide the necessary flexibility for developments to evolve and respond to the housing market. We do not support however, the inclusion of infill-type policies in these master planned areas.

Design Guidelines

1. Do you think the existing design guidelines for infill development are sufficient? Why or why not?

The UDIA recognises that infill development policies need to carefully balance the existing neighbourhood characteristics and constraints with the community's desire for a range of housing. Significant design policies have been included in the Planning and Design Code to address this

balance. Given that dwellings considered under the HomeBuilder Scheme were not assessed against these new policies, insufficient time has passed to test their effectiveness. The UDIA therefore recommends further monitoring of the impacts on development potential, availability of housing stock and design outcomes before making further changes.

In relation to design manuals to support the Code, the UDIA is concerned that this adds another layer of complexity to the planning system overall and provides uncertainty around the role of these documents. Guidelines and design manuals should be seen as advisory rather than policy. Where it is policy, it should be within the Code.

2. Do you think there would be benefit in exploring alternative forms of infill development? If not, why not? If yes, what types of infill development do you think would be suitable in South Australia?

The UDIA supports the Code facilitating a range of infill development types that meets the housing needs of South Australians. It is for this reason that it is important that a performance-based approach to planning is maintained within the legislation and the Code.

The policies must enable innovative and creative housing solutions and not continue to fall back on a tick box approach to planning in a way that stops good projects from happening. We advocate for clear and certain policies with streamlined assessment pathways where codification is possible. However, there must always be the option of a performance based assessment to support unique circumstances and innovative opportunities.

In strategic infill sites, it is critical that there is a high level of flexibility to ensure we can make the most of these sites and provide for housing diversity.

In particular, we would like to see the quantitative standards of the Code reviewed for larger strategic infill sites where there is a higher propensity to resolve all of the design concerns expressed in respect of small-scale infill. This is the opportunity for new and innovative housing led by the development sector. A method of achieving this might be through consideration of dispensation for significant development sites.

Car Parking Policy Code Policy

1. What are the specific car parking challenges that you are experiencing in your locality? Is this street specific and if so, can you please advise what street and suburb.

For residential development within master planned developments, car parking can be balanced between on-site and off-site provision. The rigid application of residential car parking rates in these areas can stifle innovation, make it difficult to create small-lot housing products and impact on housing affordability.

A more flexible assessment approach to car parking for Greenfields or strategic infill is recommended to enable a greater diversity of housing stock where there is greater opportunity to consider a range of parking solutions.

2. Should car parking rates be spatially applied based on proximity to the CBD, employment centres and/or public transport corridors? If not, why not? If yes, how do you think this could be effectively applied?

There are some key areas where there are a unique range of factors guiding car parking numbers and it is reasonable to have differing car parking rates, for example:

- Master planned development should have more flexible rates than small-scale infill
- Parking is not required in the CBD where public transport is accessible
- Strategic employment areas could be more flexible where there is shared parking.

These could be specifically identified through a Car Parking Overlay within the Code. The current approach is to exclude areas through Transport, Access and Parking Table 2 from the general standards. However, this is more difficult to find and interpret when navigating the Code.

3. Should the Code offer greater car parking rate dispensation based on proximity to public transport or employment centres? If not, why not? If yes, what level of dispensation do you think is appropriate?

Car parking numbers within the Code are generalised figures based on high level analysis to broadly address car parking concerns. A performance-based planning system is designed to enable alternatives to the numerical assessment standard where a lesser amount is proposed.

There are many circumstances where a reduced car parking rate can be justified. For example where there is available shared parking, on-street parking, access to public transport, high level of walkability or the other strategic outcomes are prioritized.

4. What are the implications of reviewing carparking rates against contemporary data (2021 Census and ABS data), with a focus on only meeting average expected demand rather than peak demand?
5. Is it still necessary for the Code to seek the provision of at least one (1) covered carpark when two (2) on-site car parks are required?

We note that the draft Code for consultation required that only one (1) car park needed to be provided for two-bedroom homes.

Car ownership data (using the vehicle registration system and information from the Australian Bureau of Statistics) demonstrated that this would be sufficient, as 2016 statistics indicated that the highest proportion of households owned one (1) or no cars (42 per cent) and approximately 35 per cent of the population owned two (2) cars.

However, in response to feedback from the public and councils during consultation on Phase Three of the Code, the car parking rates were increased to provide at least two (2) car parks for two-bedroom infill housing, increased from one (1) car park originally proposed. The Code also required at least one (1) of those car parks to be covered (e.g., carport or garage).

The UDIA considers that greater flexibility should be applied to small lot housing in master planned communities and would welcome the opportunity to work with the Commission on how a more flexible policy position could be developed.

The requirement for undercover car parking to be provided should be reviewed having regard to the propensity for garages to be used as storage spaces instead of car parks.

Design Guidelines

1. What are the implications of developing a design guideline or fact sheet related to off-street car parking?

Provided that the role of the fact sheet or design guideline is clear as advisory, it may be useful to provide clarity around car parking layout and design. However, it is not an issue raised by our membership as a significant priority.

Electric Vehicles

1. EV charging stations are not specifically identified as a form of development in the PDI Act. Should this change, or should the installation of EV charging stations remain unregulated, thereby allowing installation in any location?

There is a need for flexibility in the planning system as the EV industry is emerging and it is expected the EV market will adapt to technology as the industry grows.

EV prevalence as well as the use of solar power and batteries will ultimately change sustainability requirements of development and alter people's movement and choices (at home and at work).

While EV charging stations are currently not identified as a form of development in the PDI Act, the effect of making EV charging stations development may make it more difficult to deliver them.

If EV charging stations are substantial, they do have the potential to become a change of use within the current system. If this occurs, they will be assessed against the general provisions of the Planning and Design Code.

Currently there are a number of private providers of EV charging stations such as 'Jolt' that provide free charging but incorporate an advertising display into the charging station (i.e. the advertising associated pays for the free charging to users). In examples provided by UDIA members, if these structures are located within the Neighbourhood-Type Suite of Zones public notification is triggered due to the advertising component. Conversely if EV charging infrastructure in other zones is not expressly excluded by Table 5 and therefore the infrastructure itself triggers public notice.

The UDIA encourages the reduction in red tape including streamlined assessment process for this essential infrastructure. We would strongly support the introduction of Code policy to provide incentives and reductions in car parking where charging stations are provided as part of a development.

The Government may also need to consider the long-term planning for increased demand for electricity infrastructure to support this shift.

2. If EV charging stations became a form of development, there are currently no dedicated policies within the Code that seek to guide the design of residential or commercial car parking arrangements in relation to EV charging infrastructure. Should dedicated policies be developed to guide the design of EV charging infrastructure?

There are a range of policies within the Code that exist and could be applied to this land use, including access and parking, interface between land use, design and appearance etc.

If EV charging stations became a form of development, there are currently no dedicated policies within the Code that seek to guide the design of residential or commercial car parking arrangements in relation to EV charging infrastructure. Should dedicated policies be developed to guide the design of EV charging infrastructure?

Car Parking Off-Set Schemes

1. What are the implications of car parking funds being used for projects other than centrally located car parking in Activity Centres (such as a retail precinct)?
2. What types of projects and/or initiatives would you support the car parking funds being used for, if not only for the establishment of centrally located car parking?

The UDIA supports the establishment of car parking funds where it offers an appropriate alternative to the provision of on-site parking. However, we do note that several councils, namely the City of Salisbury, City of Port Adelaide Enfield and City of Norwood, Payneham and St Peters set up car parking funds and then dissolved them.

Car parking off-set schemes should:

- Involve industry participation in their development
- Have fair and reasonable fees that do not erode the confidence of industry to invest in areas
- Ensure the funding to be captured is sufficient to deliver on the ground outcomes or will be 'topped up' by the local council or other body (i.e. the scale needs to be right).
- Be designed to minimise administrative overheads
- Provide certainty, accountability and transparency.

As with any off-set scheme or payments from the development industry it is crucial that the intended purpose is clear, the cost is a reasonable impost on development, there is a suitable number of developments that ensure the funding provided is sufficient to deliver an outcome and there is a clear connection to the Code.

The UDIA does not consider that car parking off-set schemes should be applied to master planned developments or strategic infill sites.

The main application of car parking funds has been for activity centre precincts and mainstreets where development is being undertaken within constrained sites, where on-site car parking numbers are difficult to achieve. As set out above, these schemes can be effective but require careful management to ensure they deliver car parking on the ground.

Commission Prepared Design Standards

1. Do you think there would be benefit from the Commission preparing local road Design Standards?

There is significant frustration within the industry around the lack of clear standards for local roads, which typically vary from Council to Council. There would be significant time and cost savings for the development sector if a standard set of design requirements could be achieved. However, Councils

must accept Design Standards that are adopted by the Commission. The UDIA would welcome the opportunity to liaise and consult with the Commission, LGA and Council's to inform the development of suitable Design Standards.

The introduction of a broadly accepted standard will need to provide scope flexibility to ensure innovation is not stifled.

Native Vegetation

1. What are the issues being experienced in the interface between the removal of regulated trees and native vegetation?
2. Are there any other issues connecting native vegetation and planning policy?

The introduction of the Native Vegetation Overlay and the State Significant Native Vegetation Overlay have strengthened the nexus between the planning assessment process and Native Vegetation Act. However, there is still a separate assessment and approvals process under the Native Vegetation Act. An amendment to the Native Vegetation Regulations could exempt the need for approval under the NV Act where an application was referred to the Native Vegetation Council under the PDI Act. This is similar to the EPA licensing process.

There is often significant confusion in areas where both regulated tree and native vegetation controls apply.

For enhanced clarity, the system could also be designed to state that one scheme takes precedence over the other so that approval processes are not unnecessarily complicated and duplicated.

Tree Canopy

3. What are the implications of master planned/greenfield development areas also being required to ensure at least one (1) tree is planted per new dwelling, in addition to the existing provision of public reserves/parks?
4. If this policy was introduced, what are your thoughts relating to the potential requirement to plant a tree to the rear of a dwelling site as an option?

The UDIA understands the importance of urban tree canopy to our long-term sustainability and climate change resilience. We understand that the Urban Tree Canopy Overlay was introduced to address tree loss through urban infill. The policy was specifically designed for infill development where more granular policies are needed to address tree loss, provide for soft landscaping, and address the impact of additional hard surfaces on stormwater systems and urban heat load.

Master planned communities aim to not only have the same level of sustainability and tree canopy levels as Adelaide's more established suburbs but aspire to meet and exceed them. However, there are many ways this can be achieved.

Sustainability can be achieved through the integrated design of the public and private realm, with coordinated tree planting and integrated stormwater solutions based on Water Sensitive Urban Design Principles. These issues are largely addressed at the master plan/ land division level rather than at the individual dwelling application level.

The UDIA would support flexibility about the location of trees on infill development sites.

Tree Protections

The current legislative framework achieves a reasonable and appropriate balance between protection of large established trees and achievement of urban infill and development across Greater Adelaide. Any change to the current legislative and policy framework to remove or alter current exemptions (ie tree circumference of distance to a dwelling or swimming pool) should include robust assessment and analysis of the implications of change with respect to reduced dwelling yields, achievement of infill targets as well as impact on housing affordability.

5. What are the implications of reducing the minimum circumference for regulated and significant tree protections?

A jurisdictional comparison of tree protection measures should include a comprehensive review of greening strategies adopted by each Australian state.

The tightening of existing tree protection controls will have significant impacts on property values, further constraining development potential of land as well as impacting on landowner rights to remove trees on private land, including circumstances where there are genuine safety concerns.

6. What are the implications of introducing a height protection threshold, to assist in meeting canopy targets?

The current tree circumference test is appropriate on the basis that:

- it is simple to understand
- does not require technical expertise
- is cost effective and accurate, minimising legal disputes.

7. What are the implications of introducing a crown spread protection, to assist in meeting canopy targets?

8. What are the implications of introducing species- based tree protections?

The UDIA supports the intention to protect Significant and Regulated Trees in Adelaide. We also support the current simple framework to identify Significant and Regulated Trees, and the inclusion of exemptions that protect significant buildings from tree affects.

The UDIA does not support changes to Significant and Regulated Tree policy which will increase the complexity of the assessment process, have the potential to put buildings and assets at risk, or significantly impact on the development potential of land.

Distance from Development

9. Currently you can remove a protected tree (excluding *Agonis flexuosa* (Willow Myrtle) or *Eucalyptus* (any tree of the genus) if it is within ten (10) metres of a dwelling or swimming pool. What are the implications of reducing this distance?
10. What are the implications of revising the circumstances when it would be permissible to permit a protected tree to be removed (i.e. not only when it is within the proximity of a major structure, and/or poses a threat to safety and/or infrastructure)?

The removal or alteration of exemptions for the removal of trees in proximity to dwellings and pools have been introduced to manage the risk of damage to people's homes and assets. Before varying

these provisions, a clear rationale would need to be provided and a risk assessment undertaken to understand the impact of reduced exemptions, (ie materials, damage to property, insurance etc).

Urban Tree Canopy Off Set Scheme

11. What are the implications of increasing the fee for payment into the Off-set scheme?
12. If the fee was increased, what are your thoughts about aligning the fee with the actual cost to a council of delivering (and maintaining) a tree, noting that this would result in differing costs in different locations?

Despite fears that all developers would elect to pay into the Tree Canopy Off-set Scheme in lieu of planting trees, the UDIA notes the Expert Panel has identified that there have only been 10 applications requiring payment into the Scheme. This equates to 5% of all eligible applications.

There will always be examples where trees cannot be provided on-site, and an alternative solution needs to be available (particularly for constrained sites).

A standardised fee for the off-set is supported, however raising these fees must be balanced against housing affordability and the range of charges that add up for a development (e.g., open space contribution). Charging what it costs for councils to maintain a tree is not a fair or reasonable way to calculate the off-set and is likely to raise it significantly.

Greater transparency in the use of the off-set funds is important.

Setting a fee at the level to be maintained by Council's sets a high bar that will ultimately drive up development costs and therefore increase the cost of housing.

13. What are the implications of increasing the off-set fees for the removal or regulated or significant trees?

There are occasions when it is not possible or inappropriate to replace Regulated and Significant Trees on a site in urban areas. The off-set scheme is therefore an appropriate mechanism to off-set tree loss. Increasing the cost of tree removal for infill and master planned developments would however add a significant cost burden to development and should not be applied in cases where the trees can be replaced. Many developers regard trees as an asset and therefore only remove them when there is a negative impact on the urban outcome.

Public Realm Tree Planting

14. Should the criteria within the Planning and Development Fund application assessment process give greater weighting to the provision of increased tree canopy?

South Australia has the highest open space provision requirement in the country at 12.5 per cent of the area of a land division whereas other states range from 6 per cent to 10 per cent. Some inner-middle suburban councils have suggested a provision of 20–25 per cent open space in medium density developments, an amount which is clearly unsustainable from a land economics and a maintenance perspective.

In contrast, some fringe metropolitan councils actively encourage a lower requirement for open space, typically around 8 per cent, and collect a financial contribution to make up the outstanding balance.

The Planning and Development Fund should be reviewed as follows:

- Facilitate better urban amenity and accessibility by committing to reviewing and reforming the open space contributions to create a fairer and more flexible approach.
- Through amendment to the Regulations, or Act, incorporate all open space uses into the 12.5 per cent contribution and not seek additional land for other open space purposes (eg stormwater which is also adding to open space amenity).
- Restrict the ability to impose an unreasonable minimum open space size for parks and reserves by recognising within the Code that there are multiple uses and sizes of reserves which serve a variety of purposes.

In terms of the use of the fund for tree canopy, we recognise that planting trees in public spaces provides significant benefit to local communities and can contribute to public amenity, place making and remove urban heat load impacts in urban areas design.

The P&D Fund criteria needs to ensure public benefit is achieved and balances the role of this fund with the Tree Off-set Scheme funds.

Character and Heritage Policy

1. In relation to prong two (2) pertaining to character area statements, in the current system, what is and is not working, and are there gaps and/or deficiencies?
2. Noting the Panel's recommendations to the Minister on prongs one (1) and two (2) of the Commission's proposal, are there additional approaches available for enhancing character areas?

The Historic Areas Overlay and Character Areas Overlay have fundamentally different purposes:

- Historic Areas - planning provisions promote the retention of buildings that contribute to the heritage values of an area. Planning provisions ensure new development is complementary to established heritage values.
- Character Areas - the focus of planning provisions is not on restricting demolition, rather on the form and character of replacement/new development that is complementary to clearly established character objectives.

Historic (Conservation) Zones within Development Plans were largely transitioned into Historic Areas under the Code. However, many of these would not meet any heritage test if it was to be applied today.

A large portion of Greater Adelaide's Inner Metropolitan Area is within a Historic Area, placing substantial constraints on growth within inner metro suburbs (within 10km of the CBD).

Demolition controls are generally stronger for Historic Areas than Historic (Conservation) Zones under Development Plans (with a few outlier exceptions).

The elevation of Character Areas to Historic Areas will expand the application of demolition controls to new areas. This should only be on the basis that it is to protect 'heritage'. The impact of this change would be to reduce the capacity of new housing forms to be developed in key inner areas of Adelaide. This is now the case, where most of the City of Unley, along with suburbs of Medindie, Gilberton, St Peters, Rose Park and Toorak Gardens are within a Historic Area Overlay.

While there has been criticism from Councils about Historic Statements and Character Statements, they should be limited to identifying the most important and consistent elements of heritage or character value in the surrounding area. They are an expression of what exists.

When Statements are read with the relevant provision of the Overlays, they are effective in providing guidance for development assessment purposes. Statements should not be updated to include policy content, which should remain in the Overlay. The Statements should clearly identify the elements /characteristics of value.

There is room for ongoing improvements to these Statements, however it is important that the intent does not lead to lengthy commentary that undermines the streamlining of policy achieved through the reform program.

3. What are your views on introducing a development assessment pathway to only allow for demolition of a building in a Character Area (and Historic Area) once a replacement building has been approved?
4. What difficulties do you think this assessment pathway may pose? How could those difficulties be overcome?

This proposal aims to introduce a new development assessment pathway that only allows for the demolition of buildings within a Character Area or Historic Area Overlay once a replacement building has been approved.

The Code appropriately removed the replacement building test from the planning rules.

The assessment for demolition should be on the basis that the building is of heritage value. A Local Heritage Place Overlay or State Heritage Place Overlay already exist for those properties identified as having characteristics of value, which have generally been informed by in depth heritage surveys. The Local Heritage Place Overlay and State Heritage Place Overlays already have suitable 'demolition' tests associated with them. The UDIA agree with this approach that Demolition policies should support the protection of places that display historical attributes worthy of preservation. Those dwelling that are not considered to be of value should not be unduly restricted from being demolished until a replacement dwelling has been approved.

Further, the design of a replacement building should be unrelated to the heritage value of an existing building and assessed against the design requirements within the relevant overlay.

This doesn't mean that the design of new buildings is not important. Any application for new development must satisfy several clear tests in the Code. These tests include:

- consistency/compatibility with nearby heritage buildings in terms of streetscapes
- front /side boundary setbacks, and
- architectural detailing (wall height, roof pitch/form, window and door openings, chimneys, verandas and materials).

The role of the Character Area Overlay is to ensure development complements the established character of the locality, rather than to control the removal of buildings that do not have heritage value.

Local Heritage in the PDI Act

1. What would be the implications of having the heritage process managed by heritage experts through the Heritage Places Act (rather than planners under the PDI Act)?

The UDIA supports heritage expertise underpinning heritage decision-making. However, heritage must still be balanced with the overall development potential of areas.

Control at the State Government level achieves consistency in the approach to heritage listing processes and we support Government maintaining an oversight role.

2. What would be the implications of sections 67(4) and 67(5) of the PDI Act being commenced?

In relation to the introduction of section 67(4) and 67(5) of the PDI Act. This provision essentially puts the definition of character areas in the Code to a community vote. While the sentiment and intention are positive, this is a poor precedence for other policy decisions, and overall is not considered to be good practice.

3. Planning System Delivery and Operation

Website Re-Design

1. Is the PlanSA website easy to use?

The UDIA SA support the refresh of the PlanSA website to enable the easy accessibility of information to all South Australians. Whilst the current website provides a wealth of information, it is not considered to be simple to use or intrinsic to navigate to find information you are seeking (even for the seasoned professional!).

UDIA support the Panel's recommendation to enable a 'subscription service' to enable the community to subscribe and receive notification to certain types of development and changes to the status of applications. This will improve system usability for all South Australians without the need to continually monitor the website.

UDIA also support the Panel's recommendation of providing an interactive development application tracking map that would link back to the public register and notification page. This will assist in making data easily accessible to all South Australians and be able to clearly see the location of applications which may affect them.

2. What improvements to the PlanSA design would you make to enhance its usability?

Mobile Application for Submission of Building Notifications and Inspections

1. Would submitting building notifications and inspections via a mobile device make these processes more efficient?

The UDIA support the previous Expert Panel on Planning Reform's December 2014 recommendations outlined in 'The Planning System We Want' that sought to "*capitalize on emerging technologies should improve access and reduce delays and duplication.*" The suggestion to submit building notifications and inspections via a mobile device/app to improve system accessibility and reduce delays is supported.

2. Where relevant, would you use a mobile submission function or are you more likely to continue to use a desktop?

Online Submission Forms

UDIA supports the Panel's recommendation to create a centralized database of Builder's information that is integrated into the e-Planning portal removing the requirement to manually enter Builder's data for each individual application. We also strongly support the modification of the online application form to save and reuse common contacts to auto populate pre-saved contact details. This will assist in streamlining the system and reduce the time taken to lodge an application.

Whilst we support the Panel's recommendation to enable the relevant authority to generate a checklist with each application which identifies the relevant assessment criteria, especially in relation to Deemed to Satisfy applications, it is recommended that such a checklist be made available to the general public to reduce time wading through the pages of policy generated by the current pdf versions. This could be akin to the old 'Residential Code' checklist under the rescinded *Development Act 1993*.

1. Is there benefit to simplifying the submission process so that a PlanSA login is not required?

The UDIA strongly support the Panel's suggestion of simplifying the submission process of development application's on the DAP system. Currently all applicants are required to have a PlanSA login system that must be generated by PlanSA staff, which can take a number of days. By removing the need to have a PlanSA login created, all South Australians will have access to the system without unnecessary delay.

2. Does requiring the creation of a PlanSA login negatively impact user experience?

3. What challenges, if any, may result from an applicant not having a logon with PlanSA?

Increase Relevant Authority Data Management

1. What would be the advantages of increasing relevant authorities' data management capabilities?

The UDIA supports any improvements to the e-Planning system that ensure the timely assessment of applications and the reduction in 'double handling' between the relevant authority and departmental staff.

In addition to providing increased data management capabilities to relevant authorities, it is also recommended that the e-Planning system be altered to enable applicants to upload additional documents between submission and 'verification' of the application. Under the current system once an application has been 'submitted' there is no functionality to enable other documents to be uploaded (even if a document has been accidentally forgotten during the lodgment uploading process) until the application has either been 'verified' by the relevant authority or the relevant authority has requested additional documentation be provided on the portal.

2. What concerns, if any, do you have about enabling relevant authorities to 'self-service' changes to development applications in the DAP?

Any changes to the portal that increase the ability for relevant authorities to manage data should ensure that this improves/expedites assessment timeframes and provides for a more robust and transparent system. The UDIA would welcome the opportunity to workshop possible options for improvement further in this regard.

Inspection Clocks

3. What are the advantages of introducing inspection clock functionality?

The UDIA supports the suggestion of implementing inspection clocks to ensure the relevant authority undertakes timely inspection after the given of notification. This would also provide greater transparency within the system.

4. What concerns, if any, would you have about clock functionality linked to inspections?
5. What, if any, impact would enabling clock functionality on inspections be likely to have on relevant authorities and builders?

Collection of lodgment fee at submission

6. Would you be supportive of the lodgment fee being paid on application, with planning consent fees to follow verification?

The UDIA strongly supports the Expert Panel's suggestion of 'locking in' the relevant version of the Code at time of submission of an application by way of payment of the lodgment fee. This will ensure that any Code Amendments that become operational between submission, verification and ultimate payment of fees and official 'lodgment' will not alter the assessment once submitted. This will provide certainty to the development industry and avoid any doubt on which version of the Code should be applied to an application.

Members have also raised concerns that the Portal currently only allows planning applications to be paid by credit card online. This is difficult when there are multiple applications submitted (ie. 60+ individual built form applications for a master planned project). Members have outlined that it can be a challenge to have a credit card limit able to accommodate this. Most business preference is to pay via EFT however no bank details are provided for PlanSA. Having this updated in the Portal would be a great help for more efficient business practices.

Further, members have advised that submitting applications on parent titles can be a challenge when new titles are issued. Essentially the whole planning process needs to be done again on the individual title. This is a double up of work and fees, etc. Ideally it would be good if the Portal allowed submissions on the parent title and then when new titles are issued, it could associate the existing approval with a new title reference. This would streamline the process.

7. What challenges, if any, would arise as a consequence of 'locking in' the Code provisions at lodgment? How could those challenges be overcome?

The only challenge for payment of a lodgment fee upon submission of the application would be for planning practitioners who submit applications on behalf of their clients then being required to pay the lodgment fee. One recommendation could be that once 'submitted' an option would be for a link to be sent to those listed as responsible for 'invoicing' on the DAP system.

Combined Verification and Assessment Processes

8. What are the current system obstacles that prevent relevant authorities from making decisions on DTS and Performance Assessed applications quickly?
9. What would be the advantages of implementing a streamlined assessment process of this nature?

The UDIA strongly support the suggestion of a combined Verification and Assessment process. Where applications satisfy the DTS pathway or satisfy relevant performance outcome of the Code applications should be approved quickly, reducing frustration, uncertainty and unnecessary expense.

10. What, if any, impact would a streamlined assessment process have for non-council relevant authorities?

Automatic Issue of Decision Notification Form

11. What are the advantages of the e-Planning system being able to automatically issue a Decision Notification Form?

The UDIA supports the automatic issue of a Decision Notification Form for Deemed to Satisfy forms of developments. This will enable quicker processing times and reduce administrative delays currently experienced in the system.

12. What do you consider would be the key challenges of implementing an automatic system of this nature?

For Performance Assessed forms of development, especially where public notice is required, the automatic Decision Notification function may be more challenging to implement.

13. If this was to be implemented, should there be any limitations attached to the functionality (i.e., a timeframe for payment of fees or the determination will lapse)?

Building Notification through PlanSA

14. Would you be supportive of mandating building notifications be submitted through PlanSA?

Whilst the UDIA generally supports the intent of ensuring a streamlined system and reducing 'double handling', concern is raised regarding mandating that building notifications be submitted directly through the PlanSA portal without first ensuring that appropriate technology is in place (i.e. phone or tablet based app) to enable the notification to be made whilst on the job site rather than a desktop pc.

15. What challenges, if any, would arise as a consequence of removing the ability for building notifications to be received by telephone or in writing to a relevant council? How could those challenges be overcome?

16. Would this amendment provide efficiencies to relevant authorities?

Remove Building Consent Verification

17. Would you be supportive of removing the requirement to verify an application for building consent?

The UDIA strongly support the Expert Panel's suggestion of removing the requirement to verify an application for building consent. This suggestion would further streamline the process and reduce delays in the system. A relevant authority would still retain the ability to request further information pursuant to clause 119(3) of the PDI Act.

18. What challenges, if any, would arise as a consequence of removing building consent verification? How could those challenges be overcome?

Concurrent Planning and Building Assessment

26. What would be the implications of enabling multiple consents to be assessed at the same time

UDIA Strongly supports the proposal to enable concurrent Planning and Building Assessment. This would reduce the overall timeframe for the assessment process and streamline the approval system. Currently UDIA members experience time delays between obtaining Planning Consent, the relevant authority issuing the DNF and stamped plans onto the PlanSA Portal then not being able to upload their Building Rules Consent until the previous steps have been completed. The proposal to enable multiple consents to be assessed at the same time was a clear intent of the original planning reforms and its implementation should be a priority.

Extract for the Grow Reform Build UDIA document:

Invest in the development of a new real time electronic urban development monitoring tool in partnership with the UDIA, to improve state-wide planning for growth, liveability and affordability, and encourage increased private sector investment.

Innovation – Automatic assessments check for DTS Applications

The UDIA support the investment in new technologies to enhance and fast track the processing of development applications, such as the suggested automated assessment checks of DTS applications. This could be a useful tool for one-time users of the planning system. A statewide implementation of such a tool in the planning system may alleviate the workload pressures on relevant authorities and improve timeframes particularly within the 'verification' period.

Innovation – 3D Modelling for Development Application Tracker and Public Notification

Whilst it is acknowledged 3D modelling can assist in the ability to interpret plans and understand a development's 'look and feel', the production costs of 3D renders are far greater than 2D plans and take greater time to produce. The requirement to provide 3D renders with applications should be limited to certain classification or zones for example, development of greater than 4 storeys where located within the 'Design Overlay.' This should not be mandated for all development classifications, and ideally should only apply for more significant development proposals.

Innovation – Augmented Reality Mobile Application

Augmented Reality tools provide a useful tool to interpret the 'look and feel' of a development proposal and the ability to 'see it' especially for those not able to interpret 2D plans. Augmented Reality tools would be particularly useful for those larger scale applications that require public notice, however the cost to produce augmented reality 'plans' is far greater than standard 2D or 3D renders. Consequently, the use of such technology should be carefully considered and limited to certain classifications of development or zones, for example development of greater than 4 storeys where located within the 'Design Overlay' or within the 'Urban Corridor' suite of Zones.

Innovation – Accessibility through Mobile Applications

The UDIA support the investment in new technologies to enhance the usability of the PlanSA website and DAP system particularly to cater for mobile devices.

4. Appendix

1. UDIA Submission on Developer Deed Review and Infrastructure Schemes
2. UDIA Submission to the State Planning Commission on Miscellaneous Technical Enhancement Code Amendment (MTECA)
3. UDIA Submission on Land Supply Reports and State Planning Commission EFPA review
4. UDIA Grow Reform Build 2022

The above reports have been supplied as attachments to DTI.PlanningReview@sa.gov.au on Friday, 16th December 2022.



Mr Jeremy Conway
Chief Executive
Infrastructure SA
GPO Box 2343
Adelaide SA 5001

Email: infrastructure@sa.gov.au

13 November 2023

Dear Mr Conway

Re: South Australia's 20-Year State Infrastructure Strategy Discussion Paper

Thank you for the opportunity to provide feedback on the *South Australia's 20-Year State Infrastructure Strategy Discussion Paper*. The Waste Management and Resource Recovery Association of Australia (WMRR) is the national peak body representing Australia's \$15.8 billion waste and resource recovery (WARR) industry. With more than 2,200 members from over 400 entities nationwide, we represent the breadth and depth of the sector, including representation from business organisations, the three (3) tiers of government, universities, and Non-Government Organisations (NGOs), including research bodies.

An integrated WARR system is good for both the environment and the economy, given that it drives jobs and economic growth. At present in South Australia (SA), WARR activity directly and indirectly employs around 5,000 people with an annual turnover of greater than \$1 billion and contributes around \$0.5 billion to Gross State Product.¹² SA also leads the nation in its levels of resource recovery, with a reported rate of 81.9% for 2021-22. With almost four (4) million tonnes of materials recovered from households, businesses and construction activity processed locally through SA facilities resulting in a reduction of greenhouse gas emissions by 1.31 million tonnes of CO₂-e.³

WMRR welcomes the SA government's recognition of the multiple economic, employment and decarbonisation opportunities arising from a circular economy. A thriving and well planned WARR industry in SA, will be vital to achieving the objective of this strategy. Given the role material outputs can play in reducing reliance on virgin materials, having the added benefit of assisting with decarbonising and creating economic jobs in both recycling and infrastructure in SA.

Sound infrastructure planning will be integral to an accessible WARR industry in SA as material will be both required and produced throughout the lifecycle of infrastructure development and operations. SA's transition to a circular economy also requires clear recognition of WARR services as a form of essential infrastructure. In WMRR's view, the strategy would benefit from cross-referencing *South*

¹ South Australia's Waste and Resource Recovery Infrastructure Plan, Green Industries SA 2018

² South Australia's Waste Strategy 2020-2025, Green Industries SA 2020

³ Green Industries SA, Circular Economy Resource Recovery Report 2021-22.

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Australia's Waste and Resources Recovery Infrastructure Plan (2018) (SA's Waste Infrastructure Plan), noting that this plan needs updated given that a number of significant investments have progressed, and national export bans have been placed on some materials since publication. WARR infrastructure is a key piece for each of the objectives set out in the Discussion Paper.

The criticality of the WARR sector, including its infrastructure has been tragically highlighted by the shocks of recent natural disasters, including the pandemic in recent years. These have resulted in the creation of large unplanned volumes of waste needing removal and differing disposal treatments at scale. Strategic planning that includes the recognition of both business-as-usual growth as well as these types of surges needs to occur to ensure that there is resilience across WARR networks, to protect the accessibility and useability of infrastructure and to ensure that the community has the best possible opportunity to recover quickly and sustainably from such events. It is for these reasons that WMRR considers it vital, that the SA Waste and Resource Recovery Infrastructure Plan and the Waste Strategy be incorporated into this Strategy and echo connected sentiments. Given the vital role that this strategy will play in establishing and supporting the continued growth of South Australia.

WMRR's responses to the consultation questions can be found at **Annexure A**. Please contact the undersigned if you wish to further discuss WMRR's submission.

Yours sincerely



Gayle Sloan

Chief Executive Officer

Waste Management and Resource Recovery Association of Australia

Annexure A

Submission:

Consultation question 1 What opportunities should we consider to improve South Australia's (SA) growth?	Further explore opportunities stemming from the circular economy given the focus on design, recycling and remanufacturing, and the ability of SA to capitalise from having a slightly isolated market that it can use its own recovered materials as manufacturing inputs particularly on large infrastructure projects that could utilise construction and demolition materials at scale. Further SA could utilise this opportunity to specify increased use of recycled or circular products within its infrastructure projects to drive the creation of local SA employment opportunities.
Consultation question 7 How can South Australia (SA) better coordinate infrastructure investment to support a growing population?	Suitable, well-located WARR infrastructure is an essential element in providing liveable and well-planned places and must be recognised in the strategy through appropriate cross-referencing of the SA's Waste Infrastructure Plan and appropriate recognition across the planning system. Noting the link between population growth and increases in urban area with increasing volumes of waste material generated and remanufacturing opportunities created. The well-planned provision of suitably located facilities for the collection, aggregation, processing, treatment and recovery of such wastes is essential for both the environment and the continued operation of industry, as well as the community. The development of such facilities requires appropriate planning (land use and transportation) as well as buffers, given that there can be high levels of sensitivity to encroachment.
Consultation question 14 What are the opportunities for infrastructure investment to accelerate attainment of the Closing the Gap targets?	WMRR is aware that research has previously been undertaken on waste management needs across remote communities. Review and funding of this work would assist with essential service provision and raise community awareness and understanding of waste and resource recovery operations.
Consultation question 15 What infrastructure investments will support industries to transition to a global net zero future?	The WARR sector is intertwined with all other industries, we have a vast opportunity to assist the entire supply chain in reducing its carbon footprint and reducing reliance on virgin materials. In addition to mitigating our end-of-pipe emissions through landfill diversion, organics processing, and methane recovery, the WARR industry is integral to creating a regenerative economy in Australia that is bolstered by reuse, remanufacturing and repair and will further enhance the reduction of indirect emissions, e.g., through

	the reduced extraction of virgin materials for product manufacturing, extended product lifespan, and more.
Consultation question 18 What action is needed to achieve a circular economy in South Australia?	Transitioning SA to a circular economy should be a priority action of this strategy in recognition of the economic and environmental benefits. To create a strategy that values resources (circular) or even 'closes the loop', there must also be principles that drive actual resource recovery. At present the strategy does not address that the materials we consume are valuable and where possible we should minimise consumption (avoidance) and maximise resource efficiency (maximise life cycle at highest and best use for as long as possible), to support circular thinking and acting. Following a systems-based approach to managing materials, must be underpinned by the adopted waste management hierarchy, for the infrastructure sector as we move towards a genuine circular economy that considers carbon mitigation, emphasises product design and sustainable natural material management, as well as having clear pathways for the use of secondary raw materials in order to keep these in circulation. It is gratifying to see recognition of the power of procurement in the strategy and WMRR encourages Infrastructure SA to look to Victoria's EcologiQ recognising the work being done by GISA in this area also (Circular Economy Knowledge Hub) WARR opportunities require space and land use needs, need to be factored into planning including: • buffers and services for existing • zoning for new and expanded • precincts and hubs • suitable transport infrastructure and access.
Consultation question 19 What measures can be taken to enable the infrastructure industry to decarbonise?	In the product design phase consideration of non-virgin material, along with reuse and repurposing of existing assets or designing for end-of-use modulation (removeable components and flexible structure etc). Where relevant and possible, precinct design – complementary and supporting industries co-located to enable logistic efficiency, by-products as feedstocks etc.
Consultation question 21	As already discussed, disaster waste management planning and associated infrastructure development need to be considered.

What are the critical resilience issues that South Australia needs to address?	
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