



Regional
Development
Australia

L I M E S T O N E C O A S T

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RE: 20-Year State Infrastructure Strategy Discussion Paper

Regional Development Australia Limestone Coast (RDALC) welcomes the opportunity to make a submission on the Infrastructure SA 20-year State Infrastructure Strategy Discussion Paper.

The Limestone Coast region encompasses an area of 21, 329 km², has a population of over 66,000, supports 7,319 businesses creating over 30,000 jobs in the region. Gross regional product is in excess of \$3 billion, approximately 3.4% of the States Gross State Product.

SUMMARY

This submission focuses on regional South Australia and in particular the Limestone Coast region, and the challenges and opportunities that can be addressed through infrastructure development. It also focuses on infrastructure that will have the most significant impact on industry and economic growth. RDALC acknowledges the much broader role infrastructure plays in regional SA but also acknowledges there are other organisations better placed to address these.

RDALC views infrastructure holistically. Infrastructure is the foundations and resources that underlay the movement of ideas, data and information, energy, people and goods and services in a regional economy. This includes the traditional physical infrastructure but also social and environmental infrastructure and technology along with wider knowledge infrastructure where they contribute to the task of tapping unrealised economic development. RDALC recognises that the challenges and opportunities across regional SA are likely similar across the state and while some solutions might also be broadly applicable, place-based solutions must also be considered.

RDALC commends the breadth of infrastructure included in the remit of Infrastructure SA and strongly supports the underpinning philosophies taken, that infrastructure must enable the services necessary to sustain or enhance our economy and liveability.

We see that there are some key considerations to guide infrastructure development in the regions:

- Regions must be able to clearly articulate their competitive advantages and infrastructure development should, where possible, leverage these advantages
- Infrastructure development must be strategic and grounded in evidence and data



An Australian Government Initiative



An Initiative of
Government
of South Australia



Limestone Coast
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- Government investment should focus on enabling infrastructure and/or infrastructure that removes impediments to growth
- Public private partnerships should be encouraged where practicable
- Government support should play a role along all stages of developing infrastructure investments, assessed on a project by project basis. For example, some projects may be best supported and accelerated with assistance around the feasibility stage, with private investment taking on the role of building the infrastructure. Whereas for community-based infrastructure private investment might not be practicable and government will play a larger role in the building of this infrastructure
- Government has a role to play around incentivising infrastructure investment, to ensure regions are viewed favourably for investment and can compete with other regions globally
- Government has a role in supporting, utilising and leveraging organisations that already exist in the regions. These organisations, like the RDA's across South Australia, can be supported to undertake regionally important work such as feasibility studies, can provide place specific intel and can be used for their substantial networks.

In the Limestone Coast region, the key Infrastructure opportunities are considered to be:

- Improved power infrastructure to enable growth in the region in industries such as manufacturing, particularly in agriculture and forestry value add. The Limestone Coast is strongly commodity based in these industries and stands to achieve substantial economic growth through increased value add in the region
- Digital Connectivity to enable access to Big Data to increase production in the region and allow the region to better utilise its resources and connect with global markets
- Freight Transport infrastructure is critical to the region's ability to reach global markets. With a freight task currently reliant solely on the road network, investment in this network and alternative transport modes is critical to the region remaining competitive in a commodity market
- The Limestone Coast is considered a biomass hotspot due to the large forestry and agricultural industries. Renewable waste biomass presents an economic opportunity for regions with high value products able to be extracted or biomass utilised for energy production. With costs around transferring waste biomass out of regions generally cost prohibitive, preliminary processing and refining likely needs to occur in region presenting an infrastructure investment and job creation opportunity.

EMERGING PATHWAYS TO GROWTH

What infrastructure investment would make the biggest impact to unlocking economic growth in South Australia in the next 0-5, 5-10 and 10-20 years?

RDALC sees five critical infrastructure areas to be addressed in the short to medium term future; power, connectivity (digital and transport), biomass, vocational education and affordable housing.

Power – Access, reliability and affordability

The cost of power is and will continue to be an inhibitor of growth in regional areas without investment into the necessary solutions. The issues that exist across the Limestone Coast region vary from insufficient availability due to end of the line constraints, to lack of 3-phase power availability. A variety of solutions are required but these first need to be identified with a detailed analysis of the constraints and the opportunities, something government support would be needed for. Improved power infrastructure, in the form of reliability and affordability, would assist in making the regions more competitive to attract new investment and also maintain existing large energy users such as manufacturing businesses. The region's power infrastructure also plays an important role in allowing the region to develop its excellent wind energy and possibly wave energy and biomass resources. Currently, expansion of wind farms for example is restrained by insufficient

connectivity capacity. There's potentially billions of dollars of investment to be unlocked if these capacity restraints are addressed.

Connectivity - Digital

Connecting regional areas to the rest of world remains a critical challenge requiring investment in the next 5 years. As key industries, such as Agriculture and Forestry, become more data and technology driven, connectivity becomes essential in ensuring regions can compete in a global market. As businesses are driven to collect, utilise and provide more real time data the infrastructure that underpins this needs to be there to support and enable it. Currently large areas, particularly in less populated areas lack any digital connectivity. Due to the low populations in these areas they are not competitive for traditional mobile black spot towers. They likely need solutions such as networks of LoRa Gateways. IOT and Big Data trials would also be a key first step to build capacity in regions around the opportunities and to really bring regions into alignment with where real time data usage sits in other metropolitan centres and other countries.

There are other organisations better placed to comment on how connectivity will be crucial to the delivery of health and other critical services in regional South Australia in the future. However, RDALC sees it as important to acknowledge that greater connectivity won't only generate economic growth in industry but stands to greatly increase the liveability of regions.

Connectivity – Transport

The Limestone Coast is largely a commodity-based region which means increases in the cost of transport can have large impacts. In the short to medium term, strategic investment in road infrastructure must be maintained to ensure no efficiency is lost in getting products to market. In the longer term the Limestone Coast has a substantial unused asset in the form of a preserved rail corridor that connects the region to the north and the west. This asset is significant and how this can be used to the economic and social benefit of the region must be considered. With significant rail investment occurring broadly across Australia and in particular in Victoria and up and down the Eastern Seaboard, the Limestone Coast stands to obtain a competitive advantage if it can be connected into these opportunities. It could open new market and industry opportunities through greater connectivity with ports and reduced transport times and costs. Existing freight operators are actively seeking ways to overcome issues such as fuel and maintenance costs for road transport and the fact that there's a shortage of qualified and experienced heavy transport drivers. Rail offers a solution here. Rail can also play a role as social infrastructure in the form of passenger rail allowing equity of access for all those living in the region.

Biomass Utilisation

Regions are rich in biomass which provides an economic opportunity and competitive advantage unique to regions. With the cost restraints around moving raw biomass long distances some value adding needs to occur in region which is an industry and job creation opportunity to grow regions and we consider this an emerging pathway to growth, driven by global markets.

It is estimated across regional and rural Australia there is 78 million tonnes of biomass, increasing to 100 million tonnes by 2030 and 114 million tonnes by 2050. In a 2014 study commissioned by QUT the potential impact of establishing biorefineries in Queensland was estimated as an increase in Gross State Product of more than \$1.8 billion annually and the creation of around 6640 jobs, most of which would be located in regional communities. A bio economy based around this biomass could deliver many benefits including employment and economic development in regions, increased energy security, more effective use of waste and a reduction in greenhouse gas emissions. It also

provides a potential additional farm revenue to biomass producers, estimated at being \$3.9 - \$7.8 billion annually now across Australia, increasing to \$5.7 - \$11.4 billion annually by 2050.

Vocational Education

Skills shortages are occurring across regional South Australia, to the point where they can be an impediment to growth and investment. Ensuring vocational education meets the needs of regions is critical to keeping people in the region and for industry to have a secure workforce now and into the future. Into the future vocational education will need to be agile to respond to the changing needs of industry and the infrastructure needs will likely be very different to what they have been in the past. Digital connectivity will play a large role in delivering education and training in the regions.

There is currently limited vocational education and training access in some critical locations within the Limestone Coast region, including Naracoorte, Bordertown and Keith, and industry has expressed concerns that vocational education within Mount Gambier does not align to identified needs. This situation will be exacerbated by projected changes in industry demand for skills and labour to meet structural adjustments, responses to new technologies and growth in service sectors. Securing suitability trained and skilled staff has been identified as an ongoing issue for industry in these locations, as well as across the broader Limestone Coast region. Ensuring the right type of skills and capabilities is accessible is critical to supporting industry growth and attraction. Project Description To support the continued growth of industries across the region, and to ensure there is suitable and accessible training for the region's residents, access to Vocational Education and training is needed. This project will consider the best approach to achieving this aim, including consideration of new delivery models for regional Vocational Education and training such as that developed at the Geraldton Universities Centre (www.guc.edu.au).

Addressing these issues will create a range of benefits:

- Skills creation and addressing regional skill shortages, thereby increasing productivity
- Increase attractiveness for business investment
- Improved educational pathways and regional workforce.

Coastal Protection

There's a clear need for defensive structures along our coastline to protect the region from incursion by sea water. As sea levels rise and as storm surges increase in intensity, driven by global warming, our region's key economic assets of fresh water, land and land based infrastructure are particularly vulnerable to seawater incursion. The flat nature of our terrain, coupled with the comprehensive drainage system connected to the sea make us particularly vulnerable. Already we are having to deal with issues of potential inundation at places such as Kingston and Beachport.

Affordable Housing

Affordable housing is a critical aspect to industry expansion and the attraction of new industry into regions. Many regional towns are not setup up to accommodate the requirements of rapid, large workforce expansion, particularly when this workforce is migrant and as such has different requirements around housing. Migrants often require temporary workers accommodation before then occupying affordable rental housing. Regional towns often don't experience the capital growth that occurs in larger metropolitan towns making them unattractive for private investment into new housing stock. These housing stock shortages require innovative solutions, incentives and likely public private partnerships to overcome them.

GROWING DOMINANCE OF DATA AND TECHNOLOGY

How can South Australia best prepare its infrastructure to be able to adapt to and embrace future technological disruptions?

Technological disruptions tend to happen faster than ever before with revolutions such as Industry 4.0 causing more significant change faster than the revolutions before it. This means the infrastructure that is needed to underpin these technological changes needs to be able to be rapidly in place or regions stand to fall behind and become uncompetitive in a global market. To best prepare we need to look globally at trends, the technological disruptions and at those countries leading the world around these changes. An example is Agriculture 4.0, there are countries leading the world in this AgTech revolution, whereas comparatively Australia falls behind.

Another way to prepare South Australia is to provide greater support for entrepreneurs, innovators and start-ups working in these technological disruptions. Developing and growing these businesses puts South Australia at the forefront of these disruptions and puts us in a position of early adopters and exporters of technology, rather than merely importers of tech. In the Limestone Coast the economy is considered buffered with multiple strong industries, this absence of crisis can mean innovation falls behind other regions who are experiencing significant hardships. Innovating in the absence of crisis is critical to remaining competitive and will likely require government activation and support. Along with this, capacity of existing businesses needs to be built to ensure they understand the importance of being early adopters and the benefits and opportunities of embracing technological changes and keeping pace with global trends.

What services are we likely to use in the future that will require supporting digital infrastructure?

It is realistic to envisage that all services will require some form of supporting digital infrastructure into the future in regional areas. Technology stands to play a much larger part of the lives of regional South Australians, from how we shop, how we access financial advice, how we access health care to how we are notified about natural disasters such as fire. If regions are to attract and increase their populations digital infrastructure will need to be in place to support the connectivity people demand today and into the future. While the focus for RDALC around digital infrastructure is the opportunity it presents to our businesses and industry, its development undoubtable has significant benefits to our ability to access all services from our regional locations, ultimately creating increased liveability.

OUR REGIONS

What strategies should the Government adopt to ensure the necessary infrastructure is in place so our regions can thrive?

Regions have ample competitive advantages, but these are coupled with clear disadvantages when it comes to attracting investment and achieving economic growth. This can include disadvantages that raise the cost of doing business in regions such as inability to access workforce, cost of or access to power and lack of connectivity to global markets. Government should adopt evidence driven strategies that ensure the necessary infrastructure is in place or developed to overcome these disadvantages and where possible leverage the regions competitive advantages in a place by place approach. Government should have a particular focus on enabling infrastructure that will unlock private investment and stimulate industry and business growth. This could include supporting regions to build the evidence base for their region's infrastructure needs with an ultimate aim to create private investment ready projects. Such assistance would accelerate the unlocking of economic growth but also be a relatively inexpensive way to accelerate that growth. This investment in data and business cases may also need to be coupled with strategic investment in enabling infrastructure to give regional SA an edge over other regions in Australia, or even globally.

CROSS SECTORAL CONSIDERATIONS: A SYSTEMS APPROACH

What factors should be considered when making inevitable trade-offs about investment in public infrastructure in the context of funding constraints?

A key factor for consideration needs to be ongoing sustainability of any investment, ensuring that infrastructure investment is viable in the long term and clearly avoiding circumstances of "build it

and they will come". Another key consideration has to be where can private investment reasonably play a role in part or all of the infrastructure investment opportunities and how can Government enable or promote this. Where possible private investment should be the aim with Government enabling and accelerating this where possible. This allows government funding to be spread further through the state and also provides some certainty around the soundness of the investment. For this to occur infrastructure development needs to be strategic and underpinned by a strong evidence base as to what should be built, where and for what purpose. Governments may need to play a role in supporting regions to undertake this work.

How can South Australia better manage demand on current infrastructure?

In regional South Australia the issue around demand can be the reverse to that experienced in metropolitan centres. Regional infrastructure often needs an increase in demand for it to remain in region or for development of existing or new infrastructure to occur. Achieving increased population growth in regions is critical to support the maintenance and development of infrastructure. Increasing liveability of regional South Australia is therefore critical to support population attraction and perhaps more importantly retention. One of the key issues for metropolitan areas is the huge cost of congestion and in providing expensive transport solutions to allow people to commute to where the jobs are. Decentralisation of industry and of populations helps reduce and delay these major expenditures. There's the added social advantage of more affordable housing in regional areas.

What opportunities are there to better leverage private investment to drive public infrastructure development?

Undoubtedly private investment is a critical part to driving infrastructure development in regions and enabling public private partnerships an important means to achieve greater infrastructure development out of the funds available. Government can play an enabling role in this area and what support is needed should be assessed on a project by project basis. In some cases, the support required might be incentives to encourage investment, other cases may require government to assist in reducing the risk in the early feasibility stages of a project. Government incentives can also play a role in creating an environment more competitive and conducive to private investment.

EDUCATION

How will changing delivery models in education and training impact infrastructure requirements?

How education and training are to be delivered in the future will change, with the jobs of the future and the necessary skill sets looking very different from the way our workers have been trained in the past. This is an area that RDALC sees as critical that place-based approaches are considered and that Government ensures regions have an active voice in determining their needs, now and into the future. Models where single organisations occupy dedicated infrastructure may not be appropriate into the future and co-education and training spaces may be what is needed. Digital infrastructure will also be key in supporting the delivery of training in region.

TRANSPORT

How will technology change the transport system in South Australia?

Technology will change the transport system in regional South Australia, certainly around the way in which freight is handled and transported. Freight vehicles will get larger as the need for efficiency drives investment into technology. The way freight is tracked, transparency around movements and the customer connection to those movements is also likely to be impacted by technology. This technological development is critical for regions to remain competitive in a global market, particularly as we compete with countries with greatly reduced input costs in comparison to Australia. While these advances will increase productivity and safety the conflict between other motorists and road freight transport will remain and how this can be removed is an important

consideration. A major disruptor to transport in the relatively near future will be advent of driverless vehicles (road, rail and possibly air), and the electrification of many of our modes of transport. It will be vital to ensure that regional areas are not disadvantaged by lack of enabling infrastructure such as charging points for vehicle batteries and digital tracking devices to enable driverless corridors.

How can South Australia take the lead on reducing emissions from transport?

South Australia has an incredible biomass opportunity which can clearly serve a role in the reduction of emissions from transport. As identified by Bioenergy Australia in their State of Nation report global targets around the reduction of greenhouse emissions from some of the world's largest carbon industries in the world (e.g. Aviation) present opportunities for regions rich in biomass. Aviation has committed to reducing its greenhouse gas emissions in 2050 by 50% (compared to their 2005 baseline) while the International Maritime Organisation also seeks to reduce its emissions in 2050 by 50%. Low carbon and carbon neutral fuels will drive this change, a space biomass stands to be a critical player in. Aviation and Maritime are massive industries whose targets stand to create immense market opportunities for bio-based projects. Another key enabler for carbon emission reduction is the adoption of electric vehicles (road, rail AND air). SA is leading the way in generating the renewable energy needed to power these vehicles. As mentioned above, it's critical the enabling infrastructure for this technology is rolled out to regions, not just the major cities.

UTILITIES

What options are there to establish a reliable, decarbonised energy system that presents export opportunities?

Renewable waste biomass presents a significant opportunity in regional South Australia to develop reliable, dispatchable and decarbonised energy. Regions like the Limestone Coast have been identified as biomass hotspots which presents an energy opportunity. This can occur on a single business scale through a business taking its own waste biomass and using this to replace or offset its traditional energy usage. It can also occur at a larger scale with biomass from a broader region combined to create a scale of biomass that can generate energy for industry precincts, can be used in green hydrogen production or for the manufacturing of higher value secondary products from waste biomass. These broad scale projects have the added benefit of creating a bio economy, another opportunity for regions.

Since 2016 RDALC has been administering the Bioenergy Connect fund on behalf of the South Australian Government. The fund has supported businesses who produce a waste biomass and have an energy demand explore bioenergy for their business. It is an enabling fund and low risk for businesses, who often have no or very little prior knowledge of bioenergy. Businesses aren't required to contribute financially but are required to give a consultant enough of their time and business information to allow them to do initial calculations around whether they have the ingredients for a viable bioenergy project. The feasibility program offers the next step, a matched funding contribution to take the project through full feasibility to an investment ready project. The fund has been an enabling fund, increasing the knowledge around bioenergy in the region and the state's understanding of what is needed to make a viable project. It has greatly increased the knowledge base around biomass and bioenergy in the Limestone Coast and has been the catalyst for RDALC forming a cross border committee to explore the opportunity further with our neighbouring regions. RDALC strongly supports government initiatives like this one as they build capacity within the regions to take up new opportunities and accelerate development.

There's also an opportunity for the Limestone Coast region to contribute to the "hydrogen economy", by using surplus wind energy to create H2 from hydrolysis of water. The region has excellent wind resources and has good connectivity with the national gas pipeline network, though ideally that energy should be used for local industry expansion if possible.

If you have any specific questions relating to this submission, please don't hesitate to contact me.

Yours sincerely

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