



31 May 2022

Mr Steve Whetton
Chief Executive
South Australian Productivity Commission
GPO Box 2343
ADELAIDE SA 5001
Submitted electronically via sapc@sa.gov.au

Dear Mr Whetton,

Inquiry into SA renewable energy competitiveness DRAFT REPORT – SA Power Networks’ Submission

SA Power Networks welcomes the opportunity to make a submission to the SA Renewable Energy Competitiveness Draft Report (the Report). We believe South Australia can leverage its unique circumstances to create a future where energy is clean, reliable and affordable.

Clean, reliable, affordable electricity will become the key foundation of our economic growth and prosperity – reducing cost of living for customers, improving competitiveness of existing businesses, and attracting new energy-intensive industries and those seeking to reduce carbon footprint.

This vision is only achievable if competitive barriers are addressed as a key priority of Government.

The pricing gap

The Report identifies a gap between wholesale and retail prices in South Australia, noting that average spot prices in SA are the lowest in the NEM, yet average prices paid by retail consumers are higher than interstate. The Report finds therefore that renewables are not delivering a competitive advantage.

It is important to acknowledge that the retail bill is made up of several components and a broad range of factors may be influencing this outcome.

South Australian pricing is influenced by fundamental issues of low customer density, relatively high peak demand and low energy use over which the components of the cost of supplying energy are ‘smeared’. We trust that the Commission has considered this in its assessment of how renewables are influencing energy competitiveness compared with other States.

How the distribution network may contribute to lower pricing

While the Report largely focuses on direct impediments to large renewable energy generators connected to ElectraNet’s *transmission* network, it rightfully acknowledges that a competitive advantage can be obtained through lower cost and greener electricity, and through delivering the transition to net zero at lower cost than other jurisdictions. These are areas where SA Power Networks has a strong interest and believes that there is ample opportunity for our distribution system to assist in achieving those outcomes.

As well as ensuring sufficient investment in grid-scale generation capacity, it will be critical that we maximise the opportunities for small-scale distributed energy resources (DER) to participate actively in the market.

Rooftop solar, residential batteries, Virtual Power Plants, smart customer loads such as EV chargers and demand-side flexibility will be critical to achieving the full potential of South Australia's high-renewable energy system in reducing energy costs for end consumers.

Impacting demand behaviour

The Commission states that there would likely be benefit in having additional daytime demand that can be readily curtailed, and increased competition in on-demand generation.

We agree. Shifting demand to the middle of the day and out of peak periods reduces distribution network costs because it minimises the need for future upgrades to distribution network capacity. It also could drive a more effective wholesale market and more competitive retail market. With the right policy and market settings this should deliver cheaper energy for customers.

The State Government could implement a range of policy measures to contribute to this shift. They include:

1. **Faster implementation of smart meters** would better align wholesale and retail prices as customers could move away from flat-rate tariffs. A current example is retailers shifting controlled load (primarily hot water) into the 'solar sponge period' in response to SA Power Networks' Time-of-Use network tariff. We are seeing an increased usage of controlled load in the period from 10am to 3pm but the potential benefits are impacted by the slow rollout of smart meters. Smart meters also provide a range of additional benefits that could benefit electricity system safety, efficiency and customer service.
2. **Encouraging faster uptake of electric vehicles** to increase energy throughput. SA Power Networks forecasts that the associated substitution of petrol with electricity will see more than 800 GWh of additional energy flowing through the network annually by 2030. By 2050, EVs may increase energy throughput on our network by 50%. The State Government's own modelling on accelerated uptake of EV, with smart charging, could by 2030 deliver a 5 – 20% real price reduction in electricity, which would equate to the average household saving of \$95 - \$324 per annum on electricity bills. Encouraging this additional load to the middle of the day will maximise outcomes for all South Australians, in terms of electricity reliability and cost.
3. **Smart home energy optimisation.** Smart homes are critical to matching demand with supply. Policies to ensure major appliances can be aggregated and managed under a home energy management system would provide far greater opportunity in this sense. This could be through responding to passive tariffs or be aggregated and managed through a virtual power plant type arrangement.

Regulatory structures

The Report finds that "regulatory structures in the NEM do not focus on consumer price outcomes" and that the "market structure of the NEM means that prices paid by consumers do not reflect those that would be experienced in a perfectly competitive market".



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Interestingly, the report cites the role of various bodies (AEMO, AEMC, ESCOSA) but does not address the role of the Australian Energy Regulator. SA Power Networks notes that the AER regulates with a *core focus* on consumer pricing. Indeed, we and other network businesses undertake a rigorous five-yearly regulatory reset process designed to ensure that customer network pricing is efficient and service levels are delivered. This is enshrined in the National Electricity Rules. This raises the question of whether the same level of regulatory oversight that is applied to distribution networks is being applied to other parts of the system, to ensure that the competitive market is actually delivering lower prices for customers.

The Report considers Government red tape on renewables projects, which speak largely to the planning and development system and the potential role of Renewable Energy Zones. Of course, SA Power Networks would support the general intent of minimising red tape for economic benefit across the energy sector. However, the Report again focuses on large generators connected to the transmission system and gives no attention to opportunities at the distribution level to simplify, streamline and remove cost barriers for connecting smaller renewables.

Embedded generation

Some stakeholders have been critical of AEMO's ISP being overly focused on large generators. We believe that Government policy makers could consider the economics of embedded generation as a key aspect of delivering a competitive advantage and build upon South Australia's strong leadership position.

In 2021, 63% of the State's demand was met by solar and wind and the take-up of solar is continuing unabated. South Australia has led the world in the rapid uptake of renewables and we have the opportunity to continue to leverage our unique circumstances through technology like Virtual Power Plants, which can deliver considerable benefits to customers and to the grid. In part due to strong policy measures from successive State governments, South Australia has established its leadership capability and we are now well positioned to deliver even more value to customers.

The Report acknowledges that a substantial increase in renewable energy generation is needed to meet the State's decarbonisation agenda but that initial analysis suggests that expansion of renewable generation is unlikely to materially decrease retail electricity costs unless flaws in the NEM are addressed.

Again, the Report is focused here only on regulations in the context of large scale generation. This again highlights that further consideration could be given to policies which maximise the value of embedded generation, particularly while these "flaws in the NEM" are addressed.

Hydrogen opportunity

Impediments to green hydrogen production are a key focus of the Report. As a State, it makes economic sense to be able to convert our renewable energy resource into exports. As we transition to a 100% renewable grid, where SA will often have excess renewable generation, green hydrogen will provide opportunities to capture that excess, gain value from it, and provide significant benefits from long-term storage capability. As we seek to overcome the challenge of intermittent renewable generation, it will be an important step towards a stable, reliable, 100% renewable energy system.



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A whole of system approach to the transition

An underlying theme in the Report is that strong cross-government coordination will be required to maximise our State's economic opportunity in the clean energy transition. It is also clear, and a key focus of our submission, that the full energy supply chain has a role to play in delivering our State's competitive advantage.

For those reasons, SA Power Networks believes that there is a strong case for key energy stakeholders and the State Government to work together to develop a South Australian Energy Vision, which is focused on setting a long-term policy framework that will efficiently capture economic opportunities from the energy transition, including:

- Meeting South Australia's de-carbonisation goals
- Delivering abundant, reliable and cheap energy to South Australian homes and businesses
- Improving the health and wellbeing of South Australians
- Maximising investment and export opportunities for South Australia
- Strongly contributing to jobs growth

This Vision, developed in consultation with key industry groups, could be used to drive the cross-government policy changes needed to build SA's competitiveness and maximise the economic benefits of the energy transition.

Thank you again for the opportunity to make a submission. If you wish to discuss this submission, please contact SA Power Networks' Policy and Advocacy Manager, Cecilia Schutz at Cecilia.schutz@sapowernetworks.com.au or on 0433 606 473.

Yours sincerely



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