

16 February 2024

Australian Energy Market Operator

Via email: ISP@AEMO.com.au

To whom it may concern

Re: AEMO's Draft Integrated System Plan ('ISP')

Background

The South Australian Chamber of Mines and Energy (SACOME) is the leading industry association representing the resource and energy sector in South Australia; the powerhouse of the State's economy.

SACOME has quantified the sector's contribution to the South Australian economy through its [Economic Contribution Study](#) which analysed the expenditure patterns of 15 major operating member companies throughout 2021/22.

The 15 participating companies are some of the most significant industrial entities in South Australia, namely: Adbri, Adchem, Beach Energy, BHP, Boss Energy, Cooper Energy, FMG Resources, Nyrstar Port Pirie, OZ Minerals, Rex Minerals, Santos, and SIMEC Mining.

The Study found that these companies contributed \$10.7 billion in direct and indirect spending to South Australia, equivalent to 8.3% of Gross State Product, or one dollar in every 12.

Furthermore, these member companies are responsible for the following economic contributions to the State:

- Directly employed 7,825 full-time jobs and supported the employment of 42,832 full-time jobs in total; or 1 in every 14 jobs are supported by the resources sector.
- Paid \$1 billion in wages and salaries to direct full-time employees, representing an average salary of \$133,672 per annum; significantly higher than the average South Australian salary of \$77,800 per annum.

- Direct spending amounted to \$5.3 billion, which included \$3.75 billion in purchases of goods and services from over 2,851 local businesses.
- Paid \$431 million to the State Government in royalties, stamp duty, payroll tax, and land tax.
- Provided \$14.7 million to 197 different community organisations, funding health, education, the arts, sports clubs, and Indigenous communities.

Accordingly, decisions and regulations that impact our sector must be considered in this statewide context and with a view to prioritising its long-term economic viability.

It is in this context that SACOME provides feedback on the draft ISP, which in our view does not adequately consider the interests of major customers in South Australia.

While the need for affordable, reliable electricity is common to all users, the electricity needs of the resources sector are distinct given the scale of operations; the quantity required to power them; the consequences of an interruption to supply; and access as a pre-requisite to project development. SACOME welcomes the opportunity to provide this submission.

SACOME acknowledges the work undertaken by AEMO in the preparation of the draft ISP that seeks to balance many factors to find the 'optimal mix of generation, storage, and transmission' to find the policy path that will 'meet the system's reliability and security needs and supports government emissions reduction policies in the long-term interests of consumers'.

South Australia remains at the forefront of the energy transition in Australia, with over 70% of electricity now coming from renewable energy sources. The Department for Energy and Mining have forecast that this will reach 85% by 2025 and 100% by 2028. This necessarily comes with opportunities and challenges.

As previously identified by SACOME, and which has been the subject of previous representations to the State Government, South Australia's electricity transmission network is an essential enabler in the transition to a Net Zero emissions future, and in supporting the State Government's economic development strategy.

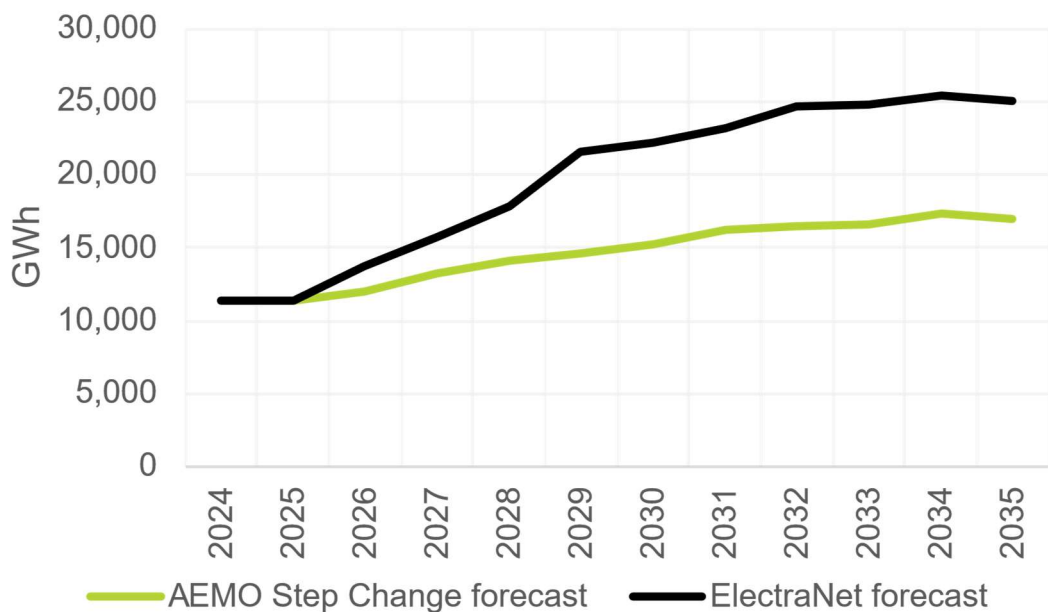
Accordingly, South Australia must develop the timely transmission infrastructure required to deliver an affordable, reliable, and clean power supply to support the State

Government's economic and infrastructure goals and successfully navigate the energy transition. SACOME is therefore extremely concerned regarding the lack of planned transmission infrastructure in the draft ISP until 2046 – a key change from the 2022 ISP.

On present indications, it is predicted that around 1,000 MW of additional load will be connected to the South Australian transmission network by the early 2030s. This is illustrated below (in energy terms) set against AEMO's forecasts.

The upper forecast shows the level of new load expected. Importantly, this does not include all loads currently in connection discussions or a range of known loads that have not yet started connection discussions. Nor does it include the potential for major hydrogen export hubs.

SACOME therefore considers the demand forecasts for South Australia in the draft ISP to be unrealistic and that AEMO should include the impacts of these known additional large industrial loads currently excluded in AEMO's demand forecasts in determining the Optimal Development Path for transmission development.



As significant demand drivers, the production of green steel in alignment with the State Government's Magnetite Strategy, and the development of hydrogen facilities near

Whyalla and other large hydrogen hubs in alignment with the State Government's hydrogen ambitions, need to be considered in this draft ISP.

SACOME notes that the development of major transmission assets requires at least 5-7 years from initial planning to delivery. South Australia cannot afford to wait until the development of a future ISP.

The following near-term projects have been identified as requiring priority action:

- The Mid-North Expansion (Southern) is an essential part of the 'network backbone'. It 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 the city becomes increasingly dependent on more distant renewable sources as local gas generators retire. It is therefore 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 State Government's economic policy objectives. This applies to meeting both demand growth and unlocking further renewable energy resources. This should also commence as an 'actionable' project as soon as possible to support emerging loads and deliver full benefits to South Australian customers.

Together, the Mid-North Expansion projects will unlock significant benefits for the State by enabling industry growth and delivering additional local renewable energy development. In its [submission](#) to the State Government's 20-Year Infrastructure Strategy, SACOME recommended these two projects be recognised as strategic infrastructure priorities.

Under the current draft ISP, and without this future transmission development, SACOME is particularly concerned about the risk of relying on other States for the timely delivery of new renewable energy projects. ProjectEnergyConnect is apposite: South Australia has completed its transmission to the border, whereas New South Wales' build is facing significant delay. South Australia remains reliant on interconnection to guarantee the security of supply in a way that New South Wales does not.

SACOME is also concerned that policy commitments made by other States would produce outcomes that are not in the best interests of South Australia, and these commitments may also not be delivered on time (such as Victorian offshore wind energy targets), also impacting the supply of energy in South Australia.

As South Australia is at the forefront of the energy transition, industry has incurred significant system security costs associated with renewable generation that other jurisdictions have yet to fully realise on a grid still largely sustained by baseload power (mainly synchronous generation). SACOME previously [published its system security cost data](#) in respect of its contribution to the State Government's Energy Transition Green Paper.

Prior to 2016, system security costs – comprising South Australia's share of Global Frequency Control Ancillary Services (FCAS), local FCAS, and System Security Directions – were barely a feature in the cost of electricity in South Australia. From Q1 2016 to Q4 2022, the total cost of intervention was approximately \$664.2 million. Further, South Australia's contribution to Global FCAS and local FCAS rose by 278% and 146% over a ten-year period respectively, and 224% over a five-year period for System Security Directions.

SACOME has now commissioned further research that shows not only has South Australia the highest system security costs across the National Electricity Market, but also the most volatile, which are forecast to continue rising as renewables, or asynchronous power, increase their share of electricity generation. The further prospect of 'islanding' events only increases these already significant system security costs.

Major customers therefore wish to mitigate this risk through the timely delivery of transmission.

Based on all these factors, the Mid-North Southern and Northern projects are essential to South Australia's clean energy future and SACOME continues to support the inclusion of these projects as 'actionable' in the final 2024 Integrated System Plan.

Ultimately, SACOME recommends that AEMO exercise its discretion under the rules to balance the risks to customers and make these projects 'actionable' in the final ISP, noting there are minimal differences in the cost-benefit analysis in the draft ISP between the candidate development paths that do and do not include these projects.

Thank you once again for the opportunity to provide this submission on a matter of fundamental importance to our sector and our State.

Yours faithfully



Rebecca Knol

Chief Executive Officer

South Australian Chamber of Mines and Energy