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Submission to AEMO Draft 2026 Integrated System Plan

The South Australian Chamber of Mines and Energy (SACOME) is the leading industry association representing the South Australian resource and energy sector.

SACOME welcomes the opportunity to make this submission to AEMO's Draft 2026 Integrated System Plan ('Draft ISP'). In summary, SACOME submits that:

- South Australia is positioned for a once-in-a-generation economic and jobs boom, driven by global demand for critical minerals and the State's world-class wind and solar resources, particularly in northern South Australia.
- Electricity demand is expected to grow rapidly as mining, mineral processing, advanced manufacturing and other energy-intensive industries expand. This is clearly reflected in the South Australian Government's Electricity Development Plan (EDP) and ElectraNet's Transmission Annual Planning Report (TAPR), both of which forecast a substantial increase in large industrial load over the next decade.
- Realising this opportunity relies on access to reliable and affordable energy. Timely and coordinated development of the State's electricity transmission and gas infrastructure is essential to unlock this growth for South Australia.
- ElectraNet's Northern Transmission Project (NTx) is key to unlocking this growth pathway, providing the lowest-cost solution to increase network capacity and deliver reliable and sustainable electricity supply to customers. It is vital that progress on this project continues.
- Without NTx, electricity prices are likely to rise and South Australia risks becoming heavily reliant on speculative interstate energy imports, such as offshore windfarm projects in Victoria.

The remainder of this submission elaborates on these points and provides our response to consultation questions set out in the Draft ISP below:

Question 1

AEMO has proposed an Optimal Development Plan (ODP) that represents a mix of investments that help deliver a reliable, secure, and least-cost power system while also meeting government policy targets.

Do stakeholders agree with AEMO's optimal development path selection in the Draft 2026 ISP?

If yes, what gives you that confidence? If not, what should be further considered, and why?

SACOME acknowledges that the ODP reaffirms that "renewable energy, connected by transmission and distribution, firmed with storage and backed up by gas, presents the least-cost way to supply secure and reliable electricity to consumers through to 2050, as coal plants retire and while meeting government policies".

This approach broadly aligns with South Australia's embedded energy transition pathway, noting that the state is at the forefront of the energy transition process and leads other National Electricity Market (NEM) jurisdictions in this regard.

South Australia's unique combination of abundant renewable energy with its world class sun and wind resources, as well as access to valuable minerals such as copper and magnetite iron ore, places the State at the forefront of the global transition to net zero.

We highlight the South Australian Government's Electricity Development Plan (EDP), published via the Energy Planning & Forecasting function within the Office of the Technical Regulator.

Under the Renewable Energy Transformation Agreement (RETA) between the South Australian Government and the Australian Government, South Australia has committed to establishing its own specific grid reliability mechanism (the Firm Energy Reliability Mechanism) and benchmark to be used in place of the national framework, and to be responsible for identifying and delivering new projects and technologies that will maintain reliability to that standard.

Establishment of the EDP is the direct outcome of the RETA and reflects that previous ISP modelling has not properly captured South Australia's vastly differing circumstances when compared to other NEM jurisdictions.

The 2025 EDP¹ makes a number of South Australia-specific findings that have broader relevance when considering development of the ODP and application of South Australian learnings to the energy transition in eastern NEM jurisdictions:

- The importance of balancing integration of renewable energy while ensuring reliability and affordability of electricity in the market. The need for planned, orderly integration is a key lesson of the South Australian experience.
- The critical role of firm dispatchable capacity (storage, gas and demand response) plays in keeping energy supply stable, particularly during high demand or low variable renewable energy (VRE) periods.
- That improved demand forecasting based on detailed and reliable data is critical, and large industrial load (LIL) growth, in line with current expectations, should be integrated into the forecast to support future network planning. Importantly, the EDP forecasts electrical energy consumption in South Australia doubling in the next decade.
- That gas plays a fundamental role in ensuring system security in South Australia and resolving gas supply chain issues (principally transport availability and commodity costs) is key. SACOME notes the South Australian Government's rapid implementation of the South Australian Gas Initiative Grant Scheme to accelerate significant projects that can help in meeting gas supply shortfalls predicted to impact South Australia from 2028.
- That a coordinated government–industry approach is essential for a successful renewable energy transition. This point is strongly supported by SACOME and reflects its long-held advocacy position of clear, staged transition planning as a driver of improved energy reliability, affordability and competitiveness.

We note that the ODP's emphasis on the role of storage and gas as firming mechanisms. Members have advised that in AEMO's Step Change scenario, gas provides about 4% of the state's energy, whereas storage provides about 6 times as much. Members have observed that there is no investment in gas in the next twenty years modelled in the Draft ISP.

SACOME also notes and supports the emphasis placed by the ODP on timely transmission network planning and development, recognising that it is of central importance in linking generation and storage to end users.

¹ https://www.energymining.sa.gov.au/data/assets/pdf_file/0008/1218878/South-Australian-Electricity-Development-Plan-2025.pdf

In its 2025 Transmission Annual Planning Report (2025 TAPR) SACOME member company and Transmission Network Service Provider (TNSP), ElectraNet, has observed that recent modelling forecasts used in the ISP underestimate future electricity demand in South Australia.

South Australia has the opportunity of a once-in-a-generation jobs boom as industries seek access to the state's unique combination of valuable minerals and world-class wind and solar renewable energy in the Northern part of the state. As these industries expand, the State's demand for electricity is set to grow significantly.

Commenting on ISP scenario modelling, ElectraNet observes that *"AEMO's Progressive Change scenario is not representative of network development requirements in South Australia. Green Energy Industries is the more appropriate variant for application as the Green Energy scenario in AEMO's 2025 IASR scenario collection. It reflects South Australia's focus on domestic development of energy intensive industries exporting value-added products, rather than direct energy exports. The 2026 ISP should reflect this."*²

Per the 2025 TAPR ElectraNet advises that it expects to connect an additional 1,300 MW of additional load to the transmission network by 2035, representing an approximate 100% increase in connected loads over a ten-year period. Large industrial loads represent the majority of this demand.³ This aligns with the demand outlook in the 2025 EDP, which sees a doubling of electricity consumption in South Australia in the next decade.

SACOME also notes the effect of interventionist government policy as a driver of new economic activity and connection demand in South Australia as highlighted by ElectraNet in section 1.3 of the 2025 TAPR. We concur with the statement *"that greater regard must be given to the effect of State and Federal policy measures by AEMO and the Australian Energy Regulator (AER) for the purpose of scenario modelling, network development planning and funding."*⁴

Given these considerations, SACOME expresses concern that the current ODP places South Australia's energy security at risk through increasing reliance on electricity imports from adjoining states. This in turn relies on the successful and timely completion of a range of interstate energy projects and policies, such as offshore wind development in Victoria, in an increasingly challenging environment for energy infrastructure delivery.

² Ibid. pg. 20

³ ElectraNet, Transmission Annual Planning Report, June 2025, pg.21 https://electranet.com.au/wp-content/uploads/2025/06/250516_TAPR_FINAL-1.pdf

⁴ Ibid. pg.24

In the context of a rising demand outlook and growing pressures on timely delivery of interstate supply sources, South Australia requires a sustainable, cost-effective supply solution that addresses these risks. As electricity demand grows, expanding transmission capacity must be a priority in South Australia for reliable, affordable power now and in the future.

SACOME recommends that these risks and the need for further transmission development in South Australia be further considered in the development of the final ISP in the interests of ensuring a secure and sustainable energy future for the State. SACOME also emphasises the need for new supply of firming electricity feedstock (primarily gas), sourced from South Australia.

Members have also observed that current demand projections are likely to vastly underestimate energy demand created by the addition of future facing industries to the supply chain (e.g. Artificial Intelligence, Defence and data centres). It is further noted that all Australian states now have proactive policies for attracting data centres to their jurisdictions, with this activity set against the backdrop of global data centre growth. As such, it is likely that current AEMO modelling significantly underestimates supply requirements for energy demand.

Question 2

In the Draft 2026 ISP, AEMO has proposed some changes to actionable transmission projects including:

- ***11 actionable projects to remain for delivery over the next decade,***
- ***three projects to move to 'committed or anticipated' status,***
- ***one project to move to 'future' status to align with the timing of other projects that influence its benefits (Central Queensland to Southern Queensland Expansion aligned with Borumba Pumped Hydro), and***
- ***two projects under review due to uncertainty in input assumptions and the influence of recent policies (Northern Transmission Project and QNI Connect).***

Do you agree with the proposed timing and treatment of actionable projects in this draft?

Despite the rapidly increasing growth outlook discussed above, we note that the Draft ISP contains no new transmission development in South Australia, while Northern Transmission Project (NTx) is under review.

ElectraNet advises that NTx is the lowest cost solution to provide reliable and sustainable electricity supply to meet expected electricity demand growth in South Australia. It cautions that if NTx is not built, electricity prices will be higher and the electricity required for economic growth in South Australia, including mining developments, industrial expansion and electrification, will need to be supplied by a costly overbuild of localised supply sources such as grid-scale solar and batteries. As noted above, South Australia would also become heavily reliant on speculative interstate energy sources, such as offshore windfarm projects in Victoria.

Consistent with ElectraNet's advice, we note that the RIT-T process is currently under way and we recommend that actionable status be maintained to allow this assessment and associated early work to continue so that an optimal supply solution for South Australia can be identified.

Members have commented on the importance of preparatory work for transmission projects, particularly as it relates to the timing construction to meet demand while balancing project cost.

Members have highlighted a 'chicken and egg' problem with AEMO's rationale relating to actionable projects, noting that if operators wait for projects to be actionable then the window to meet demand can be missed, but if there aren't actionable transmission projects then projects seeking connection may not proceed.

Members suggest that mechanisms that allow TNSPs to undertake planning works for new transmission projects that are expected to be required should be more fully utilised in the ISP, as this will better facilitate transmission being ready for development when trigger conditions occur.

Gas operators have suggested that, as part of ISP design, transmission projects to facilitate new gas supply, or policy to release new gas supply proximal to customers and manufacturing centres that require 24 hour supply solutions should be contemplated.

Additionally, members have suggested that ISP design should plan for new industry development (e.g. manufacturing, defence, data centres) to be co-located with transmission hubs.

Question 3

For the Draft 2026 ISP, the tested sensitivities were on constrained delivery of the ODP, variations on the gas development projection, and the pace of coal closures.

The effect of demand-side factors was also tested by assessing the impact of reduced energy efficiency measures, and no further CER coordination.

What other sensitivities should be considered to further test the robustness of the candidate development paths, and why?

What other sensitivities are relevant to testing robustness of investment decisions, why?

SACOME concurs with AEMO's assessment that the *Constrained Delivery* scenario set out in the Draft ISP "underscores the need to commence and progress actionable projects in the ODP now, so the energy transition can be delivered at lowest cost to consumers, and risks of delivery delays are mitigated to the extent possible".

We note AEMO's advice that "actionable and future transmission projects would still benefit consumers if delayed, however those benefits would reduce and 2030 policy targets would also be delayed as coal would remain in the system longer".

This advice reinforces the importance of a coordinated, orderly approach grounded in cooperation between government, regulatory bodies and industry to ensure the timely delivery of both supply and demand side factors necessary to support the energy transition.

The timely completion of interconnector projects remains a key priority. While the South Australian component of Project EnergyConnect was completed on time and on budget, SACOME notes that the timeline for completion of the New South Wales component (Project Energy Connect Stage 2) has been revised to 2029.

We note comment by the Office of the Technical Regulator in the South Australian Electricity Development plan that "any delay to PEC Stage 2 could increase the likelihood of temporary capacity shortfalls during periods of low VRE output, underscoring the importance of timely interconnector delivery."⁵

⁵ Ibid. pg.40

SACOME members reiterate that the current ODP leaves South Australia's energy security at risk through increasing reliance on interstate imports which depend on the delivery of a range of ambitious energy projects across the Eastern states, such as offshore wind development in Victoria. SACOME members also emphasise the criticality of local gas supply as a partial energy import risk mitigation measure for South Australia; and timely delivery of new sources of gas supply as feedstock for electricity supply as a further mitigation measure. SACOME highlights the importance of supportive regulatory frameworks in bringing new gas supply to market post-haste.

Consistent with member advice, SACOME submits that a sensitivity mechanism that assesses the energy security risk to South Australia should these projects not be delivered or are delayed; and which assesses the impact on the ODP should be incorporated to further test the robustness of candidate development paths.

Question 4

For the first time, AEMO has assessed opportunities for investment in distribution networks across the NEM, that are consistent with the efficient development of the power system, to support operation of consumer energy resources (CER).

This recognises the key role of distribution networks in supporting the integration of consumer energy resources.

Does the ODP appropriately identify and leverage distribution investment opportunities?

SACOME notes advice provided in the Draft ISP that "for the first time, the proposed ODP includes two sets of distribution network investments, adding \$420 million to the ODP's capital costs – \$260 million is to connect grid-scale generation and storage within the distribution networks, such as the Dubbo distribution project, and another \$160 million would support network refinements to help utilise what would otherwise be latent CER capacity."

SACOME is broadly supportive of measures that facilitate the integration of CER in distribution networks, particularly where they resolve system stability challenges resulting from high penetration of VRE; and lead to improved energy affordability and reliability for industry.

SACOME recognises the complex technical challenge of coordinating CER to provide effective dispatchable capacity across the NEM. Consistent with positions expressed elsewhere in this submission, coordination and collaboration between government, regulatory bodies, industry and other relevant stakeholders is key to ensuring investment in the integration of CER yields useful results.

Given South Australia leads the nation in VRE penetration, SACOME seeks greater detail on how the \$160 million to support network refinements to better utilise latent CER capacity will be allocated.

Additionally, we note member comment that unlocking more CER is complementary to grid scale development but does not substitute for resources needed to meet large industrial demand

Question 5

For the first time in the Draft 2026 ISP, AEMO has incorporated combinations of gas investments that may be developed by the gas industry.

These gas development projections influence the availability of gas to support the power system in the future, and (potentially) the mix of investments required in the ODP.

Do the gas development projections reflect an appropriate level of investment to support the gas sector, including gas-powered generation in the NEM?

SACOME notes AEMO's advice in the Draft ISP that it *"has identified three gas development projections in this ISP, for midstream gas investments such as transmission pipelines and expansions, regasification terminals, storage facilities and production plants.*

It has used one of these projections to help calculate gas fuel limits in the ODP, although ultimately the gas investment will be market-led and any one of the gas development projections (or new alternatives) could be developed.

Its capital costs are estimated at \$0.95 billion and its operating costs \$1.3 billion through to 2050. These cost estimates do not include any upstream costs for the exploration, drilling and extraction of raw gas."

Given the importance of gas to both the South Australian electricity network and the broader energy transition, SACOME welcomes incorporation of gas investments that may be developed by the gas industry into the Draft ISP.

The role of gas is emphasised in the South Australian Electricity Development Plan, with the Office of the Technical Regulator stating that: *"(g)as fired generation remains the second largest source of supply in South Australia, although its share is rapid declining. In FY2024-25, gas provided 20.8 per cent of the South Australia's electricity, down from 24.2 per cent the previous year.*

Gas generators are increasingly being operated as a firming resource, running during periods of high demand, low VRE output or interconnector constraints.

*The declining share of gas reflects both rising renewable penetration and increased imports. However, the flexibility that these generators provide to the South Australian network remains central to reliability planning and system resilience."*⁶

AEMO's 2025 Gas Statement of Opportunities (GSOO) forecasts risk of peak day gas shortfall from 2028, and structural supply gaps emerging from 2029 in South Australia. This has prompted the South Australian Government to accelerate investment in a portfolio of South Australian gas projects via the 2025 SA Gas Initiative to help in meeting gas supply shortfalls predicted to impact South Australia from 2028.

Members have provided additional comment in response to this question as follows:

- New gas supply requires supportive regulatory frameworks and shortened approval timeframes. Members submit that Draft ISP should explicitly enable domestic gas producers to bring supply to the domestic market, recognising that increased domestic supply will facilitate lower cost electricity.
- Members observe that the Draft ISP supports Liquid Natural Gas (LNG) terminals as supply balance mechanisms in southern undersupplied markets. They state that this locks communities into immediate and perpetual higher priced global oil-linked market costs and does not properly consider the impact of supply chain management complexity (e.g. lumpiness of supply, storage investment, and destruction of local existing domestic supply market stability).

⁶ Ibid. pg. 22

- Members further observe that the cheapest energy will always be that which is produced closest to where it is used and the Draft ISP's support for import terminals is contrary to the ODP's stated objective to "pursue the least-cost way to supply secure and reliable electricity to consumers through to 2050".

Yours sincerely

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