



# 2024 Draft Integrated System Plan Submission

16 FEBRUARY 2024

## Contents

<b>1. Executive Summary</b>	<b>2</b>
<b>2. South Australia’s Electricity Demand Outlook</b>	<b>3</b>
<b>3. Unlocking SA’s Renewable Resources</b>	<b>7</b>
3.1. SA Meeting 100% Net Renewable Energy Generation by 2030	7
<b>4. SA’s Reliance on the Delivery of Interstate Energy Policies</b>	<b>9</b>
<b>5. Consumer Engagement</b>	<b>10</b>
5.1. Engagement with the Consumer Advisory Panel	10
5.2. Wider engagement activities	10
5.3. Customer Price Impacts	11
<b>6. Transmission Solutions Required</b>	<b>12</b>
6.1. Mid-North Expansion Options	12
6.2. Mid-North Constraint	13
6.3. South-East SA	13
<b>7. Determining the Optimal Development Path</b>	<b>15</b>

## 1. Executive Summary

ElectraNet recognises the challenges of planning the optimal development of the transmission network in a rapidly changing environment as we transition to net zero. This requires relevant scenarios to be considered and risks to be balanced to produce a robust plan that delivers a least cost path while maintaining reliable and affordable supply.

By including no actionable projects in South Australia, the Draft ISP in its current form does not deliver on the future energy needs of South Australia:

- The analysis underpinning the ISP assumes that interstate energy policy targets and renewable development timeframes will be achieved and will largely meet South Australia's future energy needs. This includes ambitious offshore Victorian wind targets. However, the risks and implications of these targets not being met have not been considered.
- The South Australian Government's target of 100% net renewable energy generation by 2030, as reflected in the AEMC's emissions target statement, is not achieved in the Draft ISP. The Rules require that this target be considered. Analysis from Endgame Economics indicates this level only reaches 85% by 2030 under the optimal development path proposed.
- The ISP underestimates the amount of large industrial load growth in South Australia. ElectraNet expects an additional 1,000MW of load to connect by the early 2030s. This is consistent with the South Australian Government's economic strategy to capitalise on the green re-industrialisation of the economy and only represents a portion of the potential loads in active discussions with ElectraNet.
- The optimal development path being proposed in the Draft ISP does not contain any actionable projects for South Australia. However, candidate development paths that include transmission developments in South Australia were found to deliver the same level of net market benefits, to within 1%. This difference is well within the error margin of the analysis.
- The Rules require that the ISP balance the risks to consumers arising from uncertainty, including over investment, under-investment, premature or overdue investment. The risk to consumers of late investment is greater than the risk of early investment, particularly in a rising demand environment. These risks, as outlined above, have not been adequately considered.

In considering these factors, and with the support of customers and wider stakeholders from our extensive engagement on these issues, ElectraNet urges AEMO to balance the risks to customers and identify an optimal development path that is robust to interstate energy supply risks and the expected growth in demand.

**To this end ElectraNet recommends that AEMO identify the Mid-North (North and South) and South-East expansion projects as actionable in the 2024 ISP to provide a secure, reliable, and least-cost pathway to net zero for South Australian consumers.**

## 2. South Australia’s Electricity Demand Outlook

The optimal development path in the Final ISP should incorporate higher demand forecasts consistent with the additional 1GW of large industrial load identified by ElectraNet. This reflects the SA Government’s Economic Priorities to grow green industries.

ElectraNet welcomes the decision by AEMO to undertake sensitivity analysis to model the impact of 1GW of additional load in SA. ElectraNet urges AEMO to use this sensitivity analysis to assess the risks of this additional load becoming fully committed and consider consumer risk preferences in using its judgement for the optimal development path.

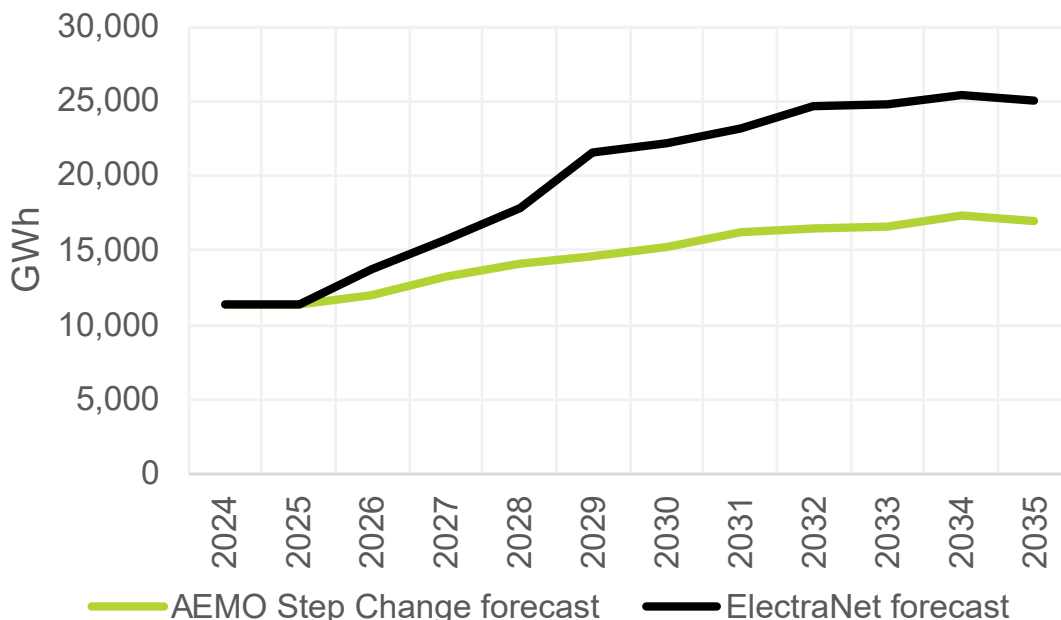
This is consistent with Section 3.3.6(4) of the Cost Benefit Analysis Guidelines which provide AEMO with flexibility in selecting the optimal development path to manage risks and uncertainties associated with future scenarios.

An additional 1GW of added load in SA’s North requires the timely delivery of the Mid-North Expansion to service this load<sup>1</sup>.

SA demand is expected to increase from large industrial loads not included in AEMO’s forecasts. This load is driven by the Government’s economic strategy to capitalise on the global green transition. The Government is focused on the advantages of SA’s vast renewable energy resources to the manufacture of products such as green iron and critical minerals<sup>2</sup>.

The additional 1GW of large industrial load in our forecast represents a probabilistic assessment of the demand growth expected to proceed. This is illustrated in Figure 1 below (in energy terms) set against the forecasts of the Draft ISP. There is approximately 2GW of large industrial load actively engaged with ElectraNet and multiples more with consideration of hydrogen exports such as the SA Government’s Port Bonython Hydrogen Hub.

Figure 1 – South Australian demand forecast



<sup>1</sup> Appendix 1: Endgame Economics, Additional SA load modelling – Final Report.

<sup>2</sup> SA Government’s Economic Priorities, [premier.sa.gov.au/ data/assets/pdf file/0004/895054/SA-Economic-Statement.pdf](https://premier.sa.gov.au/data/assets/pdf_file/0004/895054/SA-Economic-Statement.pdf)

The key drivers of the forecast demand growth include:

- 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” consistent 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.

Further, the Draft 2024 ISP step change scenario has found that by 2032 an additional 694 MW of wind is efficient in the South-East, with installed capacity reaching 1,018 MW. Importantly this exceeds the thermal capability of the 275 kV network in the South-East. ElectraNet does not consider this capacity can be efficiently connected without additional transmission investment in the South-East.

Major industries are being driven by decarbonisation targets and are developing growth plans to capitalise on utilising SA’s world-leading position in the transition to renewable energy. Table 1 below outlines key growth industries identified by the SA Government.

**Table 1. Key Growth Industries Identified by SA Government**

### South Australian Copper

SA has 69% of Australia’s economically demonstrated copper resources.

In November 2022, BHP completed the acquisition of OZ Minerals. This combined Olympic Dam, Carrapateena, Prominent Hill and Oak Dam. BHP is investigating two-stage smelting at Olympic Dam and progressing drilling at its Oak Dam deposit.

BHP are targeting a 30% reduction in operational greenhouse gas emissions by FY2023 and net-zero emissions by 2050<sup>3</sup>.

### Green Steel Strategy and Magnetite Mining

Liberty Steel in Whyalla has announced the phase out of coal-based steelmaking and the purchase of a low carbon emissions Electric Arc Furnace<sup>4</sup>, obtaining \$63 million in funding from the federal government through the Powering the Regions Fund (PRF).

SA has economically demonstrated magnetite resource of 6 billion tonnes. Located near the Whyalla Steelworks, Liberty Steel is proposing the Magnetite Expansion Project, a centrepiece of SIMEC Mining’s transition to carbon-neutral steel production<sup>5</sup>.

The Braemar region in SA’s North-East has multiple proponents seeking to develop magnetite mines that are seeking connections to the network.

### Hydrogen

The SA Government is supporting the development of a hydrogen industry in the Upper Spencer Gulf (USG). The Hydrogen Jobs Plan includes a 250MWe electrolyser and 200MW hydrogen fuelled power plan and is designed to capture first mover advantages and support the decarbonisation of hard-to-abate sectors.

Both the Port Bonython Hydrogen Hub and Cape Hardy are major hydrogen projects proposed for the USG, near vast amounts of renewable energy resources. The proposed projects at the Port Bonython Hydrogen Hub represent a \$13 billion investment and could generate up to 1.8 million tonnes of hydrogen by 2030<sup>6</sup>.

The *Hydrogen and Renewables Act 2023* contains a new licensing and development framework for Hydrogen and Renewable projects, enabling regulation across the whole project life cycle under a one-window to Government model.

### Northern Water Project

The Northern Water project is an industrial scale desalination plant and 400km of pipeline, supported by the SA Government to enable the expansion of local copper extraction and support SA’s emerging hydrogen industry, while replacing existing reliance on the Great Artesian Basin for industrial water supply<sup>7</sup>.

<sup>3</sup> <https://www.bhp.com/sustainability/climate-change/operational-ghg-emission-reductions>

<sup>4</sup> <https://www.qfgalliance.com/media-release/liberty-steel-in-whyalla-announces-the-phase-out-of-coal-based-steelmaking-with-purchase-of-a-low-carbon-emissions-electric-arc-furnace/>

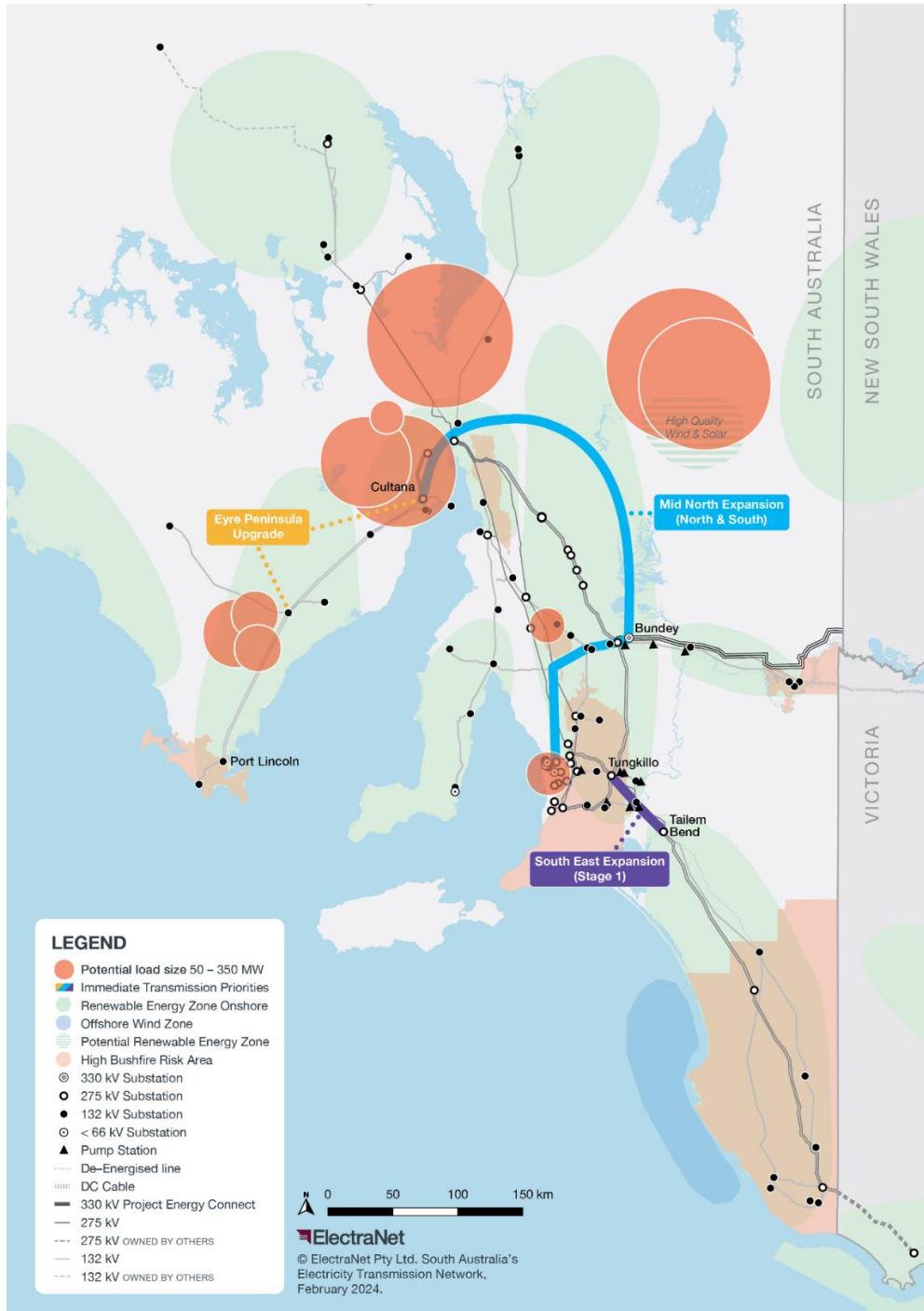
<sup>5</sup> <https://www.premier.sa.gov.au/media-releases/news-items/green-light-for-simec-expansion>

<sup>6</sup> <https://tactic.org.au/wp-content/uploads/2023/12/Session-1-S6-Minister.pdf>, p.8.

<sup>7</sup> <https://tactic.org.au/wp-content/uploads/2023/12/Session-1-S6-Minister.pdf>, p.10.

In addition, SA Power Networks has advised ElectraNet that it is also seeing growing interest in additional large loads that could become committed in coming years – in the order of 200MW – in the Adelaide metropolitan area.

Figure 2 following depicts the Mid-North and South-East Expansion projects required as immediate transmission priorities to meet the South Australia Electricity Demand Outlook.



### **3. Unlocking SA's Renewable Resources**

SA has some of the best wind and solar resources globally, often located in sparsely populated areas, giving rise to a low-cost source of zero emission generation for the State and rest of the NEM.

To meet expected demand growth, renewable supply options need to be developed in time. To enable this, transmission network solutions first need to be in place to unlock these renewable generation sources to allow for load growth to be met. This underscores the importance of timely commencement of transmission solutions.

For SA and the rest of the NEM to utilise these resources to meet expected demand, the timely transmission augmentation of the Mid-North is required.

Based on capacity factors of renewable energy projects, the ratio of new renewable energy capacity that will be needed to meet the new demand is about three to one, backed by energy storage. That is, for every additional megawatt of large industrial load, around three megawatts of renewables and storage will be required.

Importantly, timely coordination of network investment and renewable generation will ensure that this generation capacity can supply emerging loads and deliver least cost outcomes for consumers. Some of these projects have development approvals for more than 1 GW and are making applications for further development approvals. However, while these projects are well advanced, as these do not meet the threshold requirements for anticipated projects they are not included in AEMO's planning scenarios.

SA has achieved world leading levels of renewable generation due to the high quality and low-cost of its proven onshore wind and solar resources close to the grid. SA has continued to demonstrate that it is a low-risk jurisdiction in which to develop the renewable resources and supporting transmission infrastructure needed to meet demand and support the transition to a low carbon economy. This is demonstrated by the completion of construction in South Australia for Project EnergyConnect and Eyre Peninsula Link operation in 2023, as well as the Oz Minerals expansion in 2021.

Together these represent over 1,000km of successful transmission line development in South Australia over the last five years, underscoring the ability to deliver and level of support for timely transmission and renewable development in South Australia.

We recommend AEMO consider further the efficient renewable development solutions and supporting transmission infrastructure needed in South Australia from a market wide perspective to meet the growing demand for renewable energy, building on South Australia's comparative advantages, ahead of more risky and expensive sources interstate.

#### **3.1. SA Meeting 100% Net Renewable Energy Generation by 2030**

The South Australian Government has adopted a net target of 100% of electricity generation from renewable energy sources by 2030.

However, analysis undertaken by Endgame Economics indicates the optimal development path set out in the Draft ISP will see SA fail to achieve this target. The analysis suggests that SA will only be generating approximately 85% of its electricity from renewable energy sources in net terms by 2030 under the optimal development path proposed<sup>8</sup>.

---

<sup>8</sup> Appendix 1: Endgame Economics, Additional SA load modelling – Final Report.



We note that the SA Government's 100% net renewable energy target is contained in the AEMC's *Emissions targets statement under the National Energy Laws*. Clause 5.22.3 (b)(1) of the National Electricity Rules, requiring AEMO to consider this target in determining *power system needs* and in determining how the Final ISP would contribute to achieving the *national electricity objective*.

We urge AEMO to reconsider the Draft ISP outcomes and ensure the SA Government's 100% net renewable energy target for 2030 can be met in the 2024 ISP.

#### **4. SA's Reliance on the Delivery of Interstate Energy Policies**

State Governments continue to respond to the need for decarbonisation of the economy and coal generation retirements by facilitating renewable energy generation and associated transmission investments.

The urgency of the transition to renewable energy has resulted in the adoption of significant and bold energy policies.

ElectraNet understands that the potential impact of these interstate policies, if they were to be achieved, is to create sufficient surplus renewable energy to postpone the need to deliver SA's Mid-North Expansion due to a reliance on greater imports from Victoria, supplied by its proposed large scale off-shore wind and on-shore REZ developments.

The size, scope, and timing of these interstate policies, increasing pressure on supply chains and resources and growing challenges for environmental approvals makes the delivery of these projects in a timely manner highly uncertain.

There are also uncertainties attached to environmental approvals and organisations obtaining social licence. This is most evident in Victoria and New South Wales where increasing risks and delays are apparent. Recent announcements relating to Victorian Off-shore wind approvals also highlights ElectraNet's concerns<sup>9</sup>.

To ensure SA consumers have access to secure and low-cost electricity supply, we cannot rely on the timely delivery of ambitious interstate energy targets and projects.

ElectraNet urges AEMO to mitigate against the risks to SA consumers of delays to the delivery of interstate Government energy policies by allowing for the timely and efficient development of local transmission and renewable energy developments to provide secure and least cost electricity supply.

---

<sup>9</sup> <https://www.theaustralian.com.au/nation/politics/victorian-wind-farm-project-veto-stuns-both-sides-of-the-power-transition/news-story/9c1722b04256c68395b02702fc4bc0af#:~:text=At%20a%20minimum%2C%20the%20decision,82%20per%20cent%20by%202030.>

## 5. Consumer Engagement

Consumer preferences and attitude to risk provide important input into the ISP and in the selection of the optimal development path<sup>10</sup>.

Consumer representatives in SA have indicated their willingness to pay for early delivery of the Mid-North projects to mitigate their concerns over the risks associated with late delivery.

ElectraNet urges AEMO to incorporate the preferences of South Australian consumers into its decision-making process in developing the optimal development path.

### 5.1. Engagement with the Consumer Advisory Panel

ElectraNet is committed to genuine, transparent, and effective engagement with consumers and their representatives to make informed decisions and deliver improved outcomes for our diverse range of customers. The Consumer Advisory Panel (CAP) is ElectraNet's primary vehicle for engagement with consumers.

ElectraNet has engaged intensively with the CAP on the rapidly changing demand outlook, demand forecasting methodology, and future ISP projects over the last 12 months. On 5 February 2024, the CAP made a submission to AEMO as part of the ISP process.

The CAP outlined its concerns over the lack of transmission development planned for South Australia and the risks this poses to future supply and meeting demand growth and requested that the Mid-North (Southern and Northern) projects in SA be urgently reassessed as part of the Final 2024 Integrated System Plan.

ElectraNet commends the CAP for its submission to the 2024 Draft ISP and recognises the strong alignment across all consumer stakeholders as an important signal of the importance of timely and efficient transmission development to reliably meet South Australia's future energy needs.

### 5.2. Wider engagement activities

In May 2023 we published a **Transmission Annual Planning Report (TAPR) Update** to engage with stakeholders on the rapidly increasing demand outlook driven by industrial load and to seek input to our planning and development of transmission options for the 2023 TAPR.

In October 2023, we published our **2023 TAPR**, providing further opportunities to consider our plans for the network, and for customers and consumer representatives to make submissions followed by a public forum on 6 December 2023.

On 27 November 2023, we held an **Executive Roundtable** with direct customers, other potential large industrial loads, renewable energy developers and representatives from the SA Government and AEMO. Key outcomes from the Roundtable were:

- Identification of concerns and risks to SA's energy future from expected demand growth not being reflected in the draft ISP.

---

<sup>10</sup> Cost Benefit Guidelines: guidelines to make the Integrated System Plan actionable, <https://www.aer.gov.au/system/files/AER%20-%20Cost%20benefit%20analysis%20guidelines%20-%202025%20August%202020.pdf>, pp.38-39.

- Identification of interstate policies having a substantial impact on the outcomes in the Draft ISP for SA, leading to delays to all SA’s ISP projects.
- Acceptance that there is value in timely transmission development and the need for no regrets actions to preserve delivery timeframes of that development and SA’s ability to meet net-zero targets.

### 5.3. Customer Price Impacts

ElectraNet acknowledges the cost-of-living challenges facing households and businesses and continues to engage with consumer groups on the right balance between providing affordable electricity, maintaining reliability and managing the transition to renewable energy.

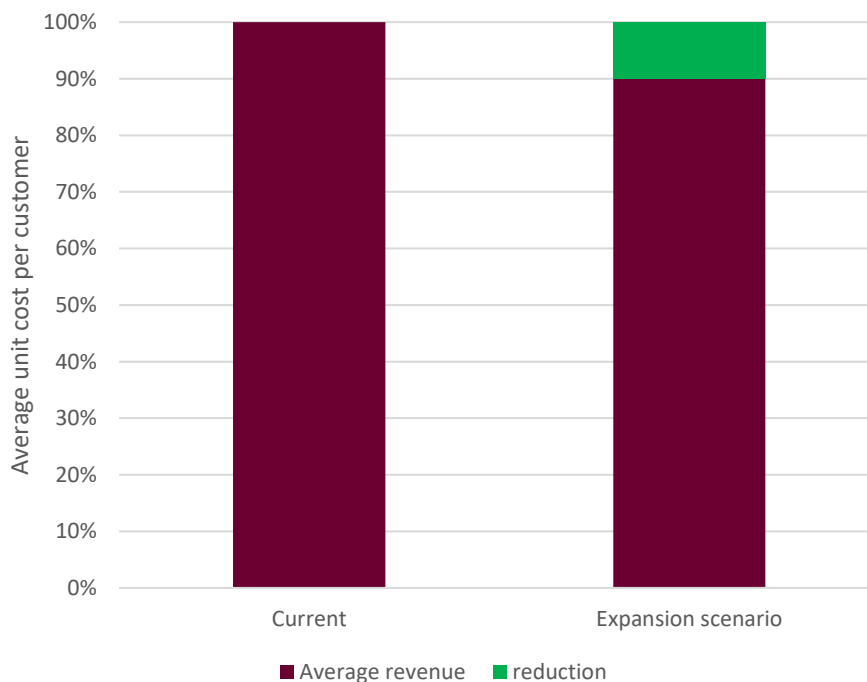
Our analysis shows that the load growth we anticipate will more than compensate existing customers for the capital investment in additional transmission infrastructure required.

Figure 3 below shows our analysis of an expansion scenario in which:

- Load in SA grows by 1,000 MW with an 80% load factor, corresponding with ElectraNet’s forecast and the amount included in AEMO’s proposed sensitivity.
- The capital investment required to meet that load growth is estimated to be \$2,000m.
- All other factors are held constant, for comparison.

The analysis shows that, under this scenario, the average unit cost per customer would fall by 10% from current levels.

**Figure 3 – impact of additional electricity demand and transmission investment on transmission charges for customers (unit cost per customer).**



## 6. Transmission Solutions Required

The following network developments require priority action to meet South Australia's energy needs:

- **Mid-North Expansion** - following preparatory activities completed in 2022-23 mid-north expansion should be progressed as an 'actionable' project in the 2024 ISP. This region 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 between Adelaide and Whyalla as South Australia becomes increasingly dependent on distant renewable sources as local gas generators retire.
- **South-East Expansion** - following preparatory activities completed in 2022-23 this project should be progressed as an actionable project in the 2024 ISP to unlock local renewable generation development and enable increased power transfers to meet demand.

ElectraNet therefore recommends that AEMO identify the Mid-North (North and South) and South-East expansion projects as actionable in the 2024 ISP to provide a secure, reliable and least-cost pathway to net zero for South Australian consumers.

To inform the finalisation of these plans ElectraNet provides the following updates in relation to these network options (specifically REZ S3 Option 1) and the capability of the mid-north network.

This advice builds on the preparatory activities AEMO required ElectraNet to undertake in the 2022 ISP and the subsequent joint planning between ElectraNet and AEMO. This advice is also based on additional sensitivities in estimating network capacity improvements and considers the locational interest of new supply and the mix of solar and wind.

ElectraNet's analysis has demonstrated that the improvement in the network under some options is higher than reported in the Input Assumptions and Scenarios Report and the Transmission Options Expansion Report.

### 6.1. Mid-North Expansion Options

Additional options (S3 Option 1a and 1b) have been identified for AEMO to consider in the 2024 ISP in response to the uncertainties and risks outlined above in this submission.

The table below highlights the scope of the network options as well as key modelling parameters such as estimated costs and network improvements between mid-north REZ and the Adelaide load centre.

**Table 2 Mid-North expansion options including cost and network augmentation improvements**

Description	Additional Network Capacity (MW)	Expected cost (\$ million)	New Easement length (km)	Lead time
<b>S3 Option 1</b> <ul style="list-style-type: none"> <li>Build a 275 kV double-circuit line between Bunday and Para.</li> <li>Disconnect existing Waterloo-Templers 132 kV line at each end.</li> <li>Build a 132 kV single-circuit line from Templers West to Templers.</li> <li>1 x 160 MVA, 275/132 kV transformer at Templers West</li> </ul>	1,200	\$ 389	136	Short
<b>S3 Option 1a</b> <ul style="list-style-type: none"> <li>Build a 275 kV double-circuit line between Bunday and Para.</li> </ul>	1,200	\$350	126	Short
<b>S3 Option 1b</b> <ul style="list-style-type: none"> <li>Build a 275 kV double-circuit line from Brinkworth to cut into Bungama-Blyth West 275 kV circuit.</li> <li>Disconnect existing Waterloo-Templers 132 kV line at each end.</li> <li>Build a 132 kV single-circuit line from Templers West to Templers.</li> <li>1 x 160 MVA, 275/132 kV transformer at Templers West</li> </ul>	100	\$70	10	Short

## 6.2. Mid-North Constraint

ElectraNet is observing periods of increasing congestion north of Adelaide and recommends AEMO lower the MN1 constraint limit to 2,000MW to better reflect the capability of the network under typical operating conditions.

Congestion is emerging with the system intact, with constraints binding ahead of the current modelled constraint level including Hummocks to Waterloo 132 kV, Robertstown to Tungkillo 275 kV, Waterloo to Templers 132 kV, Templers to Roseworthy 132 kV and Blythe West to Munno Para 275kV.

Typical operating conditions frequently include outages that reduce the thermal and voltage limitations in the mid-north region further. The network is not resilient to a single prior outage, with substantial levels of congestion occurring especially during outages of 275 kV corridors. The benefits from existing control schemes are also lost under these conditions.

## 6.3. South-East SA

In the 2022 ISP, the minor South-East Expansion was forecast as needed by FY2026 in the Hydrogen Superpower scenario and FY2029 in the Step Change scenario.

AEMO requested ElectraNet undertake preparatory activities to expand the South-East. ElectraNet provided what is referred to in the ISP as option 1 to alleviate constraint identifier S1-TBMO. This project improves connection between Taillem Bend and Adelaide with Taillem

Bend attracting interest from solar, wind and BESS developers. The project has a Class 5B cost estimate of \$34m.

This project would have the effect of increasing network capacity by around 650 MW between Tailem Bend and Adelaide. This would relieve system normal thermal constraints on the Heywood interconnector such as ‘S>>NIL\_TBTU\_TBTU\_1’ and ‘S>>NIL\_TBTU\_TBMO\_1’. It is also likely to have a beneficial impact on voltage constraints on the Heywood interconnector.

Constraints such as the notional 750 MW limit on Heywood that represent the system normal maximum (typically winter) thermal ratings between Tailem Bend and South-East substations would not be increased.

The Draft 2024 ISP step change scenario has found that by 2032 an additional 694 MW of wind is efficient in the South-East, with installed capacity reaching 1,018 MW. Importantly this exceeds the thermal capability of the 275 kV network in the South-East. The Progressive change and Green Energy Exports scenarios all lead to investment exceeding 800 MW no later than FY2029.

ElectraNet does not consider this capacity can be efficiently connected without additional transmission investment between Tailem Bend and Tungkillo and potentially further. Simply put, no imports from Victoria would be possible at times of high renewable generation in the southeast with this level of generation.

**Figure 2 Forecast Installed capacity of wind in the South-East South Australia REZ Optimal Development Path**

Scenario	2026	2027	2028	2029	2030	2031	2032
Step Change	325 MW	596 MW	824 MW	824 MW	824 MW	824 MW	1,018 MW
Progressive Change	325 MW	325 MW	643 MW	804 MW	804 MW	804 MW	804 MW
Green Energy Exports	325 MW	939 MW	939 MW	939 MW	939 MW	939 MW	994 MW

ElectraNet recommends AEMO declare expansion of the South-East REZ as actionable.

We also recommend AEMO review the method for modelling this project as it may be better represented as an increase to the South-East SA to central SA flow path with a 650 MW increase in network capacity rather than REZ augmentation S1-TBMO with only a 150 MW increase in network capacity.

## 7. Determining the Optimal Development Path

ElectraNet urges AEMO to apply its discretion in determining an Optimal Development Path that addresses:

- the expected growth in demand in SA;
- the risks to supply from uncertainty in the delivery of interstate energy policies and renewable developments;
- the level of uncertainty associated with the ISP modelling;
- the expressed preferences of South Australian customers, noting that the risks of under-investment are far greater in SA than the risks of early investment.

These risks and uncertainties are mitigated by the timely delivery of the Mid-North and South-East Expansion as actionable projects in the 2024 ISP.

The weighting of scenarios in the Draft ISP is based on engagement via the Delphi panel process that occurred on 1 September 2023. This analysis, and the resulting weighting, is reflective of national sentiment rather SA perspectives, which are clearly very different.

The selection of the optimal development path is sensitive to changes in these weightings. For example, in leaving step change as the most likely scenario and treating Green Energy Exports as equally likely as Progressive Change<sup>11</sup> the optimal development path shifts from CDP 11 to 1 and significant augmentation in SA is efficient and urgently required.

A greater weighting on the Green Energy Exports scenario would also partly alleviate some of the concerns of ElectraNet and our customers that large industrial load growth within SA has been overlooked.

As outlined above the risks associated with late delivery are far greater than early delivery. If the Mid-North and South-East Expansion projects are not incorporated into the final 2024 ISP significant time will be lost, adversely impacting the South Australian Government's target of 100% net renewable energy generation by 2030 and economic development of the state. On the other hand, if these projects are incorporated, the protections in the framework, such as the feedback loop mechanism, will provide an important check point to ensure the optimum solutions proceed in the required timeframes.

A 'least regrets' path requires early action on these projects to balance the uncertainties of the current environment and significant potential risks of late delivery and allow for the timely and efficient development of local transmission and renewable energy to provide secure and least cost electricity supply for South Australian customers.

---

<sup>11</sup> Weightings of Progressive Change and Green Energy Exports are 28.5% and Step Change is 43% - [https://aemo.com.au/-/media/files/stakeholder\\_consultation/consultations/nem-consultations/2023/draft-2024-isp-consultation/appendices/a1-stakeholder-engagement.pdf?la=en](https://aemo.com.au/-/media/files/stakeholder_consultation/consultations/nem-consultations/2023/draft-2024-isp-consultation/appendices/a1-stakeholder-engagement.pdf?la=en), p.18.



