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Dear Merryn

AEMO's Inputs Assumptions and Scenarios Report Consultation

Transgrid welcomes the opportunity to respond to the Draft 2025 Inputs, Assumptions and Scenarios Report (**IASR**) published by the Australian Energy Market Operator (**AEMO**) on 11 December 2024.

Transgrid operates and manages the high voltage electricity transmission network in NSW and the ACT, connecting generators, batteries, distributors and major end users. We have an important role in managing one of the key parts of the Australian energy system as it transitions to higher renewables penetration. We remain in a strong position to the 'Committed' critical transmission infrastructure identified in the Integrated System Plan (**ISP**) to provide consumers with access to cleaner and cheaper renewable energy.

As NSW & ACT's Transmission Network Service Provider, Transgrid is committed to operating and advocating for outcomes that are aligned to the continued achievement of the National Electricity Objectives (price, quality, safety, reliability, security and emissions), as well as the long-term interests of energy consumers.

The introduction of AEMO's ISP has marked a major improvement in the coordination and planning for the long-term development of the National Electricity Market (**NEM**). The ISP is now a foundational blueprint that provides a shared vision amongst stakeholders for the delivery of the energy transition in the NEM. This includes the retirement of ageing coal generators, the connection of very large volumes of new renewable and firming generation, the development of major transmission infrastructure, and the efficient integration of Consumer Energy Resources (**CER**) and new energy-intensive industries. Transgrid commends AEMO on its leadership in producing this high-quality and complex analysis, and the commitment to its continuous evolution.

Transgrid also welcomes the extensive stakeholder consultation that AEMO undertakes on the IASR and the rigorous and transparent assessment of modelling assumptions. It is essential that a wide range of energy stakeholders have visibility and confidence in the modelling inputs that underpin various important analysis undertaken by AEMO and other parties. We collaborated with AEMO throughout the development of the Draft IASR, including through the Forecasting Reference Group (**FRG**), the engagement of the community sentiment sub-committee, the Transmission Cost Database (**TCD**) engagement and NSW Joint Planning endeavours. We will continue to support AEMO's efforts to ensure the final 2025 IASR is a comprehensive and consistent information base for use across:

- Critical AEMO forecasting and planning publications, such as the ISP.
- Regulatory Investment Test for Transmission (**RIT-T**) assessments.
- General planning or economic analysis by policymakers and other energy market stakeholders.

There is significant value in the trusted, comprehensive and detailed nature of the IASR. Having an externally validated and trusted information source reduces time, cost and complexity for industry by being a single source of truth for modelling assumptions. This standardised process enables Transgrid and other organisations to streamline our own planning processes, avoid fragmented consultation on modelling scenarios and assumptions on a project-by-project basis, and ultimately deliver critical projects sooner for the benefit of energy consumers.

Transgrid broadly supports the inputs, assumptions and scenarios included within the Draft 2025 draft IASR. We support:

- The consideration of distribution network infrastructure in the 2026 ISP, as the enormous scale of the energy transition will require a coordinated effort of all energy players in the NEM.
- The inclusion of a new inland Renewable Energy Zone (**REZ**) in South Cobar.
- The 50% increase in capacity for the Central West Orana (**CWO**) REZ to 6,000 MW, starting with a network capacity of 4,500 MW. Transgrid is looking forward to further engagement with AEMO and EnergyCo on planning the expanded REZ, considering ways to enable the additional transfer capacity from the REZ to the broader NSW network.
- The consideration of community sentiment in planning for the future power system.
- The development of REZ to be very important, particularly the coordination of renewable generation and transmission infrastructure development to evacuate generation to load centres.
- The IASR is a valuable database for inputs to Transgrid's own demand forecasting models, providing expertly collated information, which we can apply directly and use for benchmarking independent studies.
- That simplifications must be made to the representation of energy networks to run the complex and detailed ISP model. This will, by necessity, result in lower resolution of real-world constraints than jurisdictional TNSPs will consider in planning studies. From time to time, the results in the ISP and subsequent RIT-T assessments by TNSPs may therefore be different. Transgrid welcomes ongoing engagement with AEMO using joint planning forums to discuss these differences and investigate opportunities for continued improvement and alignment of modelling.

Our attached submission provides commentary on key emerging themes that may warrant further consideration in the continued refinement and evolution of the 2025 IASR and subsequent 2026 ISP.

Transgrid is committed to working with AEMO to ensure alignment on these inputs and assumptions to ensure best transmission solutions for the NEM and energy consumers in the context of Australia's energy transition.

If you have any questions, please feel free to contact Jenna Connellan, Major Projects Planning Manager at jenna.connellan@transgrid.com.au.

Yours faithfully

Kasia Kulbacka
General Manager of Network Planning

Transgrid's response to the Draft 2025 IASR

This submission provides commentary on the following themes that we believe warrant further consideration by AEMO in the continued refinement and evolution of the IASR:

1. Accuracy of ISP forecasts in the next five years - While the ISP is a very valuable long-term planning blueprint, there are practical constraints on the scale and pace of industry development that can be achieved in the short term (impacting generation, transmission, distribution and consumer technologies). There may be an opportunity to better reflect these constraints in the IASR, which would enhance the credibility of modelling results, particularly for short-term applications.
2. Holistic assessment of project costs - The factors that have led to significant transmission cost inflation are likely to also impact other infrastructure classes, including generation, storage and distribution projects. It is essential that cost estimates for all project types are reviewed holistically to enable like-for-like comparisons and trade-offs between different options.
3. Reliability and retirement schedules for ageing coal generation - The operational availability and eventual retirement schedules for ageing coal generators are uncertain and have material implications for power system reliability and security.
4. Emerging operational challenges as renewable penetration increases - New challenges are emerging as the penetration of renewable generation in the NEM increases, including the potential for renewable energy droughts, falling minimum demand, the need for system security infrastructure, and the need for advanced capabilities to manage growing operational complexity. These issues may impose additional constraints on the power system to maintain reliability and system security and require complimentary solutions to be developed to enable the consumer benefits forecast in ISP to be fully realised.
5. Electricity demand-side considerations - The electricity demand-side will play an increasingly important role in the power system, because of demand growth arising from electrification and new industries (e.g. data centres) and coordinated CER contributing to electricity supplies.
6. Incorporation of distribution network analysis - The incorporation of distribution level infrastructure into the ISP is welcomed, including the coordinated assessment of interfaces and constraints within the transmission network to enable efficient flows of power to and from end-use consumers.
7. General comments - Section 7 outlines general comments for AEMO's consideration.

1. Practical constraints on sectoral growth in the short term

Transgrid acknowledges that it is inherently difficult to knit together *forecasts* of system development in the short-term and *scenario-based projections* over the medium and long term.

In the short term, system outcomes are likely to be primarily driven by projects and processes that are already in development, many of which are experiencing cost-inflation and delivery delays. This is due to a range of factors, including post-COVID-19 resourcing and supply chain constraints, the need to establish and utilise new regulatory and commercial frameworks, investablility challenges, competition for capital from other markets, existing policy settings, and approval and connection bottlenecks. These factors apply practical limitations to how quickly industry growth can scale up and projects can be delivered in the near-term.

In the longer-term, these constraints can be resolved (with supportive measures and policies) and system outcomes should stabilise reflecting the suite of policy and economic factors considered in the IASR. The IASR and ISP continue to be fit for purpose for long-term system planning, because immediate challenges will not necessarily limit the scale and pace of change that is ultimately possible.

The step-change scenario in the ISP tends to predict very rapid growth in renewable generation connection to the NEM, at a pace that has not always been achieved in practice, for the above reasons. As the ISP and the IASR gain prominence, they are now being used by a wide range of stakeholders including for short-term forecasting applications which are particularly sensitive to this discrepancy – such as forecasting the volume and timing of system strength services that will be required or forecasting wholesale market pricing outcomes.

The inclusion of reasonable constraints or sensitivities within the IASR and ISP could help to reflect these practical short-term challenges, and to close the gap between predicted and actual system outcomes in the immediate future (e.g. over the next three to five years).

We consider that this would make the IASR and ISP more accurate and applicable to a broader range of analyses and enhance stakeholder confidence in the ISP overall.

Exploring these challenges may also assist to identify practical and targeted solutions that could be implemented to address short-term energy reliability challenges and project delivery bottlenecks so that accelerated growth can be better achieved long-term.

2. Holistic assessment of project costs

We acknowledge that in recent years, transmission infrastructure project costs have increased. Transgrid has provided detailed breakdowns of component costs in the TCD ISP engagement.

We note that several underlying factors that have contributed towards transmission cost inflation and delivery delays are likely to also apply to other classes of energy infrastructure, including generation and distribution. Examples include:

- supply chain constraints impacting cost, availability and lead-times for equipment and materials following the covid pandemic and war in Ukraine.
- limited availability of skilled labour and strong competition for resourcing between new and existing players.
- increased land costs, particularly in metropolitan areas; and

- greater social license and community consultation processes and considerations adding time and cost to projects and impacting where infrastructure can be developed.

While the impact of these issues is clear for transmission projects currently in development, they may not be fully reflected in cost estimates for other project types where there are fewer current case studies, projects are in an earlier stage of development, and/or there is lower transparency of delivered project costs.

Transgrid considers that a holistic assessment of project cost drivers should be conducted for the IASR and applied consistently to different technology types (as appropriate) to enable a like-for-like comparison and realistic trade-offs across different options. It will also help to ensure the ISP results are practically and commercially sound and help to prevent future reliability gaps emerging because of project delays or unrealistic assumptions. We offer the following examples for consideration.

2.1. Application of learning curves

Transmission costs in the IASR tend to increase in real terms consistent with the escalation built into the Transmission Cost Database, while the cost of some generation technology options declines in real terms due to the application of technology learning curves in the CSIRO GenCost model. This will have the result of favouring generation development close to load centres, rather than transmission, over time.

While learning curves are a valid and proven concept for new technologies, it is essential that they only be applied to relevant project components since other common inputs are likely to experience escalation (consistent across all types of projects) – such as land, labour, raw materials/ resources, and balance of plant equipment (cables, switchgear, transformers, control and protection systems, etc.).

2.2. Infrastructure development in metropolitan areas

The locational cost-scaling factors applied to projects in metropolitan regions (e.g. the Sydney-Newcastle-Wollongong region within Transgrid's network area where over 75% of electricity is consumed in NSW) may not accurately reflect the very high cost and low availability of land within a reasonable distance of existing transmission infrastructure.

This will produce modelling results that overestimate the development potential of these regions and underestimates the associated costs and delivery timeframes. For example:

- In recent years, Transgrid has experienced very rapid cost increases for transmission easements and other land in the wider Sydney region. This is likely to be equally true for distribution easements and storage/generation projects.
- The size of available land parcels in this region are typically smaller, which limits the possible size and scale-efficiency of projects that can be progressed.
- There is high potential for community impact, which requires extensive consultation and management. Some technologies may experience particular social license challenges, including

combustive generation technologies which increase localised air pollution, and BESS projects following recent incidents.

- Developing projects further afield (to avoid these issues) will require additional and more complex connection infrastructure, which would also increase costs beyond existing IASR assumptions.
- There appears to be a lack of real-world interest from developers to progress generation and energy storage projects within the Sydney- Newcastle-Wollongong area. We receive low levels of renewable and storage connection interest to Transgrid's network in this region and observe the generally poor outcomes for projects through NSW Government tender processes (only one project with a capacity of 65MW/130MWh has succeeded in an LTESA tender).

Transgrid considers that the costs and hosting capacity for projects within metropolitan regions be reviewed, and scaling factors and constraints be adjusted in the IASR as appropriate. This is particularly important in the context of growing demand for electricity in these regions, because there will be an upper limit to how much can be supplied locally without supplementary supplies from other regions supported by transmission augmentation.

2.3. Complexity of major transmission projects

Transgrid's experience is that major greenfield transmission projects are highly complex and challenging to deliver. We consider that this will be true regardless of how and by whom these projects are progressed.

We suggest that transmission costs and delivery timeframes provided by different parties for use in the IASR be reviewed to ensure that they are prepared on a consistent basis, and that project tasks, costs and risks are similarly accounted for. Early project cost estimates (across all infrastructure classes) may inadvertently underestimate costs and risks that become clear as projects progress through stakeholder consultation, site studies, environmental and planning approvals, market testing and D&C contractor engagement.

The development of new regulatory frameworks and the establishment of new network operators within them is also extremely complex. Interfaces between new and existing parties must be carefully planned to enable seamless operation of the power system and manage system security risks. This is a lengthy process that has the potential to add time and costs to major projects, so should be explicitly accounted for.

The connection of new renewable energy zones at either the transmission or distribution level will often require augmentation of the transmission network elsewhere, to alleviate downstream constraints and facilitate energy evacuation to load centres. It is essential that these costs be included in assessments to enable the full costs and benefits of various options to be evaluated on a like-for-like basis.

New system security risks may also emerge as new, very large Renewable Energy Zones are connected to the NEM transmission backbone. This creates the potential for very large volumes of generation capacity to be connected to the transmission backbone radially. The size of credible contingencies will become much larger and new non-credible contingency vulnerabilities will emerge on the network, which have the potential to lead to cascading outages, with system-wide impacts. Transgrid considers that it may be warranted to place an upper limit on the transfer capacity that can be connected to a single substation at 4.5 GW to manage these risks.

Major projects, particularly those involving regional interconnection or interfaces between two NSPs, undergo internetwork testing following energisation and before the realisation of full transfer capacity. Our experience on QNI Minor and Project EnergyConnect suggests that this process can be lengthy. However, we believe this process can be streamlined through reduced testing scopes while still assuring system security. Therefore, there should be greater consideration given to the overall objective of these tests and what is required for appropriate risk mitigation. This will allow the market benefits of these major projects to be realised earlier as the assets become operational.

We welcome consideration of community sentiment considerations within the IASR to reflect relative social license challenges and opportunities in different regions. Transgrid's recent experiences from HumeLink, PEC, and other projects highlights the importance of community engagement and allocating the required time for route selection processes and establishing community consultative groups at key locations along the corridor.

3. Reliability and retirement schedules for ageing coal generators

Transgrid notes that there is considerable uncertainty about the reliability and availability of ageing thermal generators as they approach their technical retirement, and that planned retirement timeframes have also changed for some facilities. Investment in both maintenance and additional extensions of life may yet be required before they retire. These decisions and outcomes have material implications for power system reliability and security, and the volume and timing of alternative generation and system security services needed to replace them.

The sustainability of coal power stations based on economic considerations is not the only risk; the reliability of aging coal fired power stations is impacted by age with longer and more frequent outages. It appears that aging coal units are already experiencing increasing levels of unplanned outages, leading to Lack of Reserve (LOR) events in the NEM.

Transgrid recommends that further analysis of outage rates and 'stay in business' capital investment in maintenance for coal power stations should be considered, as well as the inclusion of sensitivities to examine outcomes if coal generators experience more frequent and long-term outages or withdraw from the market unexpectedly for technical reasons. This would help stakeholders understand the potential risk of coal generators becoming increasingly unavailable while replacement generation, firming and transmission capacity is not yet in place, and potential options for filling reliability and system security gaps in the intervening period.

4. Emerging operational challenges as renewable penetration increases

4.1. Potential for renewable energy droughts

As the penetration of variable renewable generation increases in the NEM, system reliability will become more sensitive to renewable energy droughts (or during dunkelflaute) – i.e. periods of time when wind, solar and/or hydro generation are considerably lower than average due to prevailing weather conditions. During these times, alternative sources of generation or storage are needed, and/or energy must be transferred from other parts of the NEM via transmission interconnection.

Transgrid recommends AEMO consider the potential impacts of renewable energy droughts in the development of the ISP, to ensure that the power system is sufficiently resilient to variable weather and climate conditions, which could include coincident weather patterns that could drive NEM-wide renewable energy droughts. Plans and systems will be required to coordinate the necessary energy storage for abnormal weather events and contribute to creating a more resilient planning process, using the current weather stations that provide correlation with the subregional demands, unless there are major population shifts in the future.

Studies using weather traces from recent periods with observed low renewable output could be valuable, such as during the period from May to June 2024. During this time, NSW experienced 26 hours where wind generation was less than 10 MWh, and a period of 6 consecutive days with wind generation less than 10 MWh for several hours; The power system relied upon coal generation to maintain security of supply. The wind traces for the 2024 reference year may be more variable than others previously tested, particularly since this occurred in winter when energy consumption was high and solar generation was limited.

The impact on both rooftop PV and utility solar from the upcoming solar eclipse in July 2028 could also be a useful case study.

Investigating renewable energy droughts in the development of the ISP will help to ensure plans include a sufficient mix of short-term storage, deep long-term storage, transmission capacity and peaking gas and liquid fuel capacity to smooth seasonal variability and ensure reliable supply under a range of conditions. Some generation sources may be a small part of the energy supply mix but play a critical role in providing capacity when needed.

Transgrid recognises there is a need to continue aligning state and NEM targets to eliminate ambiguity or discrepancy in the state and NEM models. However, we recognise there are many variables to consider and aligning the timing of available information can be a challenge.

4.2. System security infrastructure and services

The NEM currently relies on the operation of synchronous generators to provide system security services, such as system strength and inertia, which are essential to maintaining the secure technical envelope of the power system. As ageing thermal (primarily coal) generators operate less frequently and eventually retire, and new inverter-based renewable generation connects to the grid, new sources of system security services will need to be developed. The power system will not be able to operate at very high (approaching 100%) instantaneous renewable generation until system security services are fully decoupled from thermal generation, which will require the deployment of new infrastructure (such as synchronous condensers and grid-forming batteries).

Transgrid supports the incorporation of power system security constraints into the ISP to better represent future network requirements, enabling more effective planning, informed investment decisions, and enhanced system reliability. We note the complex nature of system strength as a dynamic, non-linear power system security requirement. We would welcome the use of joint planning forums to refine methodologies, including for synchronous unit commitment requirements and/or others that could more accurately reflect the future needs of the power system.

We would also support consideration of frequency control services, as technologies with very fast ramp rates (fast start technologies and batteries) may have system and economic benefits that are not captured within the existing half-hourly simulation timesteps.

Transgrid considers that the ISP methodology holistically considers several non-network alternatives to transmission network augmentation, including the development of generation and storage assets, and coordinated CER.

We note that the assessment of non-network solutions is typically focused on project- and location-specific factors which is difficult to broaden to an assessment of the entire NEM. We support AEMO's consideration of submissions from proponents to help inform this process. We note that the costs, timing and technical credibility for prospective non-network solutions can be uncertain, and subject to the same challenges.

4.3. Falling minimum operational demand

Transgrid notes that rooftop solar PV continues to be extremely popular with consumers and offers a practical option for households to reduce their energy costs and associated emissions. Rooftop solar also brings considerable benefits to the NEM by meeting energy demand locally and reducing growth in peak demand. Transgrid agrees with forecasts that suggest continued strong growth in uptake for the foreseeable future.

As the penetration of rooftop solar increases, TNSPs across the NEM are experiencing operational challenges in managing falling minimum system load demands. Additional network investment may be required to secure supply under minimum system load conditions.

AEMO's published system security reports provide for minimum system load controls, but the holistic consideration of these within the ISP may also be helpful. It would also highlight the challenges and opportunities presented by excess rooftop solar generation during the day. On one hand, this could offer low-cost supply source for flexible energy loads (perhaps hydrogen or data centres), but on the other could also require generation constraints based on NSPs' limit advice.

It is possible that reforms requiring new rooftop solar installations to be capable of remote curtailment or disconnection may be introduced in more jurisdictions (as are currently required in South Australia, Queensland, and Victoria). We support AEMO representing these kinds of rules as constraints or assumptions on the availability of rooftop solar, or as a sensitivity to consider the potential implications for other generation and storage development.

4.4. System operability tools and capabilities

As the energy transition progresses, the power system is becoming more dynamic and complex to operate. It is already more frequently operating closer to the edge of its secure envelope, making it more likely to tip into insecure operating conditions if a credible contingency occurs. This requires increased scrutiny from operators who must intervene rapidly and more frequently. The growing system complexity means that network modelling and analysis takes longer, yet real-time decisions are required faster. System operators, including TNSPs, will need advanced skillsets, new capabilities and software tools as a prerequisite to deliver secure power system operations under the scenarios presented in the ISP.

Transgrid welcomes the leadership that AEMO has demonstrated in its examination and planning for these enhancements in the Engineering Roadmap and Operations Technology Roadmap. We consider that this would be strengthened by establishing 'actionable' pathways for delivering the required investment into these critical capabilities and systems, so that they can be implemented in a timely way alongside other ISP projects.

5. Electricity demand-side considerations

5.1. Coordinated CER

Transgrid notes that Consumer Energy Resources (**CER**) forecasts have decreased from the 2024 ISP, particularly for aggregated/coordinated CER and Virtual Power Plants (**VPP**). This aligns with our expectations and reflects that VPP network integration has been slower than anticipated, and enabling network and market parameters are still in development.

Bullish assumptions about the rate of VPP growth that will occur may result in the ISP overestimating the scale and firmness of coordinated CER to meet peak electricity demand, which could lead to supply gaps if alternative generation, storage and/or transmission projects are not planned in a timely way. Given this sector is still in the early stages of development, and uptake of residential batteries and other controllable devices is relatively low, there is significant uncertainty as to how quickly VPP can scale. Some strategic factors that could influence CER projections include potential increased urbanisation and more housing density, or restriction on export (including price) used as a network planning tool.

Transgrid supports the inclusion of sensitivities on the timing, scale and firmness of VPP, to test the implications and materiality of this uncertainty on the ISP results.

5.2. Anticipated load growth from new industries and electrification

Transgrid acknowledges the importance of demand forecasts to system planning processes. As part of our annual planning cycle, Transgrid liaises with DNSPs to produce demand forecasts for bulk supply points on our network, reflecting expected load growth in each region. This process, along with proponent connection enquiries for new data centres, suggests that there may be significant load growth, particularly in western Sydney over the next decade.

We note that there is the potential for coincident demand growth from the electrification of industry and transport, new data centres and hydrogen industries. These are likely to be concentrated within already congested population (and load) centres.

Transgrid suggests incorporating sensitivities on load growth, particularly from data centres. We note that rapid acceleration may be possible, but also that the industry is in its infancy, forecasts are fragile, and many projects are not yet at the committed stage.

We support the rationalisation of very optimistic hydrogen export volume projections, but support the continued consideration of a scenario that examines the potential for Australia to leverage its abundant renewable energy resources for long-term economic advantage. We consider the Green Energy Industries scenario best reflects this vision.

Transgrid welcomes the publication of the final determination of the electricity demand forecasting methodology (EDFM) later this year, which will clearly define an approach for forecasting data centres, impacting load flexibility, firming requirements, and peaking capacity. We look forward to collaborating with AEMO on data updates and forecasts for data centres and decarbonising industrial loads, considering their inclusion in the ISP.

5.3. Sharing load forecast data

Transgrid would support the release of the following information along with IASR publications (or sharing with jurisdictional planners on a confidential basis). This would support the development of our own NSW-specific load forecasts:

- Year-by-year forecasts for NSW population and State Final Demand (from the Deloitte economic forecast report).
- Residential and general tariff and non-residential retail electricity price for NSW (rather than a single value for the whole NEM)
- Rooftop PV total capacity and annual energy by residential and non-residential categories
- Small batteries and EVs similarly by residential and non-residential categories
- Seasonal and daily charging/discharging patterns for batteries and EVs.

6. Incorporation of distribution network analysis

Transgrid welcomes the inclusion of distribution network analysis and infrastructure in the 2026 ISP. The scale of the energy transition is enormous and will require a coordinated effort of all energy players in the NEM, and a large volume of generation and dynamic demand is forecast to be connected within distribution networks.

Transgrid notes the complexity of distribution level modelling, and the interactions with transmission networks. Market simulations may not capture all realistic constraints, and dynamic loads at different connection points complicate operations and planning. Charges and limitations applied by DNSPs to solar generation in congested network zones may need to be incorporated into economic models.

Transmission constraints will also need to be considered for renewable energy zones proposed within distribution networks, as augmentation may be required downstream to ensure power can flow to other parts of the NEM if required.

Transgrid welcomes the opportunity to collaborate with AEMO, EnergyCo and DNSPs through joint planning forums to support the development of these models and the Network Expansion Options Report (**NEOR**).

7. General comments

7.1. Definition of the SWNSW1 constraint

If the definition of the SWNSW1 constraint is as is defined by AEMO in the 2024 ISP Appendix A3, which is *“Network limits associated with the existing voltage stability limit for loss of the existing Darlington Point to Wagga 330 kV line are represented by the SWNSW1 secondary transmission limit”,* the limit would be the total generation output of the SW generators towards Wagga. Based on the historical data, the highest SWNSW generation output is less than 1,200 MW, however, the highest output toward Wagga is less than 1,000 MW. Therefore, there are 2 options to treat the limit of SWNSW group constraint:

- 1,200 MW is used, the definition of SWNSW1 group constraint should be changed to “Network limits associated with the existing voltage stability limit for loss of the existing Darlington Point to Wagga 330 kV line and/or the thermal limit for loss of one Buronga – Redcliff circuit are represented by the SWNSW1 secondary transmission limit” or,
- If the definition remains unchanged, the 1,200 MW transfer for SWNSW1 should be closer to 1,000 MW. Transgrid requests AEMO to refer to an attached workbook that illustrates this point and aligns with assumptions in recent Transgrid studies. The data plotted accounts for the evacuation of the generation into Victoria through Red Cliffs that doesn't impact the flow on line 63.

Transgrid welcomes the consideration of the increase of the SWNSW1 secondary transmission limit to 1,200 MW. This will deliver essential power to the SW NSW region, Victoria and South Australia.