

13 February 2026

Australian Energy Market Operator (AEMO)
Level 22, 530 Collins Street
Melbourne

AEMO Draft 2026 Integrated System Plan Consultation

Snowy Hydro welcomes the opportunity to comment on the Australian Energy Markets Operator's (AEMO) Draft 2026 Integrated System Plan (ISP).

AEMO has continued to improve the ISP methodology to support the strategic transmission requirements of the NEM. The ISP remains a foundation for a smooth transition in the NEM with clear timelines for strategic network upgrades and interconnection. The Draft 2026 ISP demonstrates the economic benefits of actionable projects under all scenarios, including helpful additions such as the constrained delivery sensitivities and flagging a major risk of gas supply gaps in southern states by 2028/29 if new infrastructure isn't built.

However, Snowy Hydro is concerned by key transmission project delays and what that means for decarbonisation in the NEM. Delays to Victoria – New South Wales Interconnector West (VNI West) and a material change regarding Sydney Ring South will delay access for renewables and firming capacity. Snowy Hydro believes AEMO should undertake further assessment and look for improvements in the below transmission timings.

- **Sydney Ring South** - We are concerned by the material change regarding this project as it prioritises maximising existing network flows over building new capacity. The delay to earliest full capacity (completion in 2037-38) will not be in time to replace coal closures.
 - The "Actionable" project for delivery by July 2030 is now only a 'Power Flow Control' option (costing ~\$261m). This decision means we will not see a massive uplift in physical transfer capacity into the Sydney load center by 2030. Instead, AEMO will be relying on the existing assets via flow control. This will not resolve the bottleneck at Bannaby, constraining generation from the Southern region, including critical exports from Snowy 2.0 and new renewable capacity that access Humelink. It increases the risk of load shedding in Sydney.
- **VNI West** - While the project remains actionable, the delay of 2 years from the 2024 ISP for full capacity to 2031 is concerning. The importance of VNI West and the firming that will be provided to Victoria from that link connecting to Snowy 2.0 is critical. The line is also a cornerstone to connecting Renewable Energy Zones in Victoria and achieving Victoria's emissions targets. VNI West travels through three key REZs which include Central Highlands REZ, Grampians Wimmera REZ and North West REZ. For the three REZs, capacity is around 3,030MW of Wind Farms and 1,515 MW of Solar Farms. That is the highest amount of wind and solar combined across all REZs in Victoria.
- **Humelink** - The current timing of Humelink is optimal and should not be delayed. Transmission capacity into Sydney is already full. Humelink will unlock existing, constrained dispatchable and variable renewable capacity and substantially improve reliability of electricity supply in NSW. Furthermore, this project will enable NSW to receive the very considerable benefits of the Snowy 2.0 project. We welcome that the project is now classified as "Committed", previously actionable in the 2024 ISP.

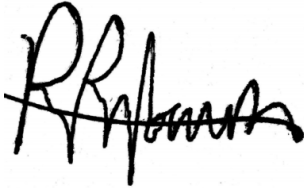
Snowy Hydro has responded in detail to the concerns and improvements required in the final ISP in the next sections.

About Snowy Hydro

Snowy Hydro Limited is a producer, supplier, trader and retailer of energy in the National Electricity Market ('NEM') and a leading provider of risk management financial hedge contracts. We are an integrated energy company with more than 5,500 megawatts (MW) of generating capacity. We are one of Australia's largest renewable generators, the third largest generator by capacity and the fourth largest retailer in the NEM through our award-winning retail energy companies - Red Energy and Lumo Energy.

Snowy Hydro appreciates the opportunity to respond to the Consultation on AEMO Draft 2026 Integrated System Plan (ISP). Any questions about this submission should be addressed to panos.priftakis@snowyhydro.com.au.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'P. Priftakis', with a horizontal line drawn through the middle of the signature.

Panos Priftakis
Head of Wholesale Regulation
Snowy Hydro

Detailed Response

Transmission timelines

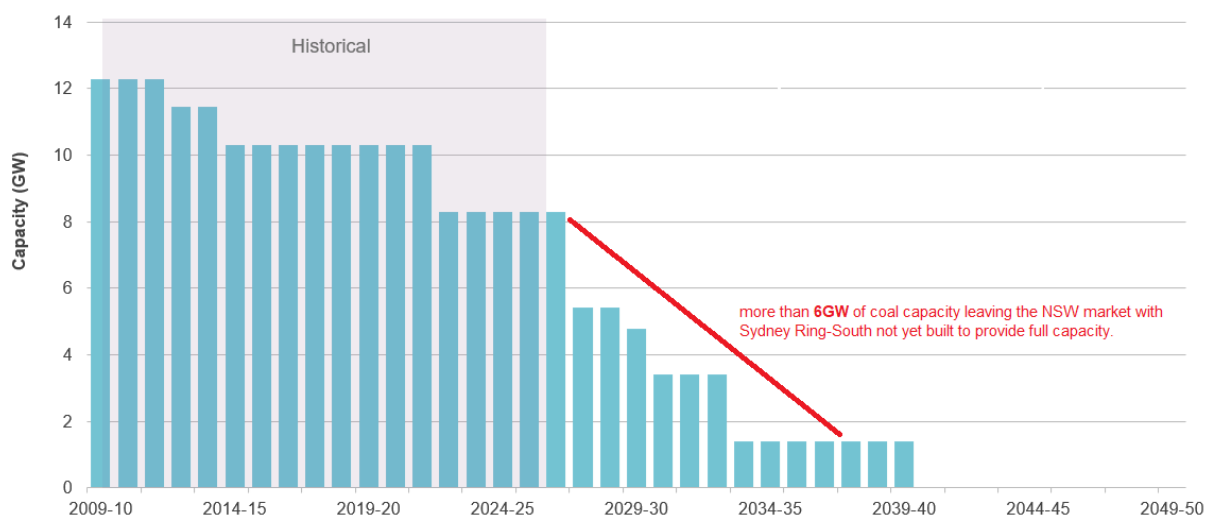
Sydney Ring South

Snowy Hydro does not support AEMO preferring the power flow controller (PFC) option for Sydney Ring South, rather than the 500kV upgrade.

The PFC option has seemingly been chosen as the optimal development path on account of a marginal difference in net market benefit (\$21 million) between the candidate development paths for these respective options (Appendix 6). In the context of a multibillion-dollar transition, this negligible variance does not account for the insurance value provided by the 500kV option. Unlike the PFC option, which optimises flows on existing, thermally-constrained infrastructure, the 500kV upgrade delivers physical redundancy and significantly higher transfer limits necessary to withstand high Impact low probability events.

Relying on flow control also overlooks the need to unlock renewables; the 500kV option provides the hosting capacity required to utilise the gigawatts of firming power from Snowy 2.0 and incoming VNI West flows, whereas the PFC option risks creating a premature bottleneck at Bannaby that will constrain renewable dispatch and threaten the reliability of supply to Sydney.

Figure 1: NSW Coal Capacity (2009-10 to 2049-2050)¹



Concerns regarding Sydney Ring-South were raised in the NSW Transmission Planning Review released in September last year². The Review notes that “the Sydney Ring South project is becoming increasingly urgent so that energy from the South West REZ, and from other states and Snowy via Energy Connect, VNI West and HumeLink, can reach the major load centres in Sydney, Newcastle and Wollongong and maintain reliability when coal-fired power stations close”³ further noting that “the project is now running well behind schedule compared with the timing assumed in the ISP.”⁴ This was noted prior to the 2026 Draft ISP.

Should other proposed projects move ahead of this augmentation, such as Sydney Ring North, this timeline increasingly becomes unlikely. Timing is critical to coincide with the completion of

¹ AEMO Draft 2026 ISP

² NSW transmission planning review Final Report 8 September 2025

³ NSW transmission planning review Final Report 8 September 2025

⁴ NSW transmission planning review Final Report 8 September 2025

HumeLink, Project Energy Connect (PEC) and Renewable Energy Zones (REZ) south of NSW so that NSW can obtain the full benefits.

The crucial transmission link, Sydney Ring-South, by being delayed will lead to a significant bottleneck. When Snowy 2.0 and HumeLink finishes, that energy will travel to Bannaby along with PEC, VNI West, and the South West REZ, which will have a significant amount of wind installed. This will mean there is a significant bottleneck of capacity at Bannaby until the full capacity of the 500KV Sydney Ring South project is complete. This decision means we will not see a massive uplift in physical transfer capacity into the Sydney load centre. At best it creates a high risk scenario, leaving Sydney with little to no supply redundancy should an N-1 event occur.

Figure 1: Map of the need for Sydney Ring-South⁵



As mentioned, the increased transfer capability between southern NSW and Sydney (HumeLink with Sydney Ring) would maximise the reliability and resilience benefits from the Southwest NSW REZ, new interconnection with South Australia and future interconnection with Victoria, and Snowy 2.0, at lowest cost for New South Wales consumers. Transmission augmentations between Snowy Mountains and Bannaby will help support Sydney under peak load conditions only if the Sydney Ring Southern 500Kv Option is completed.

The transmission upgrades from Sydney Ring South would also improve system security for the NEM by increasing firming capacity from both the existing Snowy Scheme and Snowy 2.0. (Snowy currently has 1,200 MW it cannot deploy in NSW at times of peak demand.)

⁵ Snowy analysis and article:
<https://reneweconomy.com.au/transgrid-chooses-lower-cost-option-to-connect-nsw-load-centres-with-regional-renewables/>

Clarity needed by AEMO on why Sydney Ring-South full capacity is delayed

Sydney Ring South was pushed out under the Step Change optimal development path. As shown in Table 35, the candidate development path which included the full line upgrade ('CDP6') produced a marginally lower net market benefit than the path that did not ('CDP4' - which was selected as the ODP). However, it was a very close with AEMO noting:

"While [Sydney Ring South] would provide positive benefits.... in Accelerated Transition due to the higher overall energy consumption and faster coal retirements in that scenario, Table 35 shows that, across scenarios, delivering it at an actionable timing would result in a \$21 million reduction in weighted net market benefits."

Snowy Hydro is concerned that AEMO has not adequately addressed the "insurance value" of connecting Snowy 2.0 to the Sydney Ring South (via projects like HumeLink) to prevent catastrophic blackouts and manage extreme volatility as Australia transitions away from coal.

The primary insurance value is protecting Sydney against prolonged periods of no wind or sun which full capacity of Sydney Ring-South would address with currently around 1,200 MW of existing Snowy Hydro capacity "locked away" during peak times because the transmission lines to Sydney are already full and Snowy 2.0's 2,200 MW of dispatchable power.

Table 35 Comparing net market benefits between CDP6 and CDP4 (\$ billion) – Sydney Ring South – 500 kV option (both stages)

| | CDP6– with actionable Sydney Ring South – 500 kV option (both stages) | CDP4 – without actionable Sydney Ring South – 500 kV option (both stages) | Change in net market benefits associated with non-actionable delivery of the project ^A |
|--|---|---|---|
| <i>Slower Growth</i> | 12.42 | 12.64 | 0.22 |
| <i>Step Change</i> | 25.35 | 25.48 | 0.13 |
| <i>Accelerated Transition</i> | 33.94 | 33.57 | -0.37 |
| Weighted net market benefits | 24.18 | 24.20 | 0.02 |
| Ranking based on weighted net market benefits | 2 | 1 | N/A |

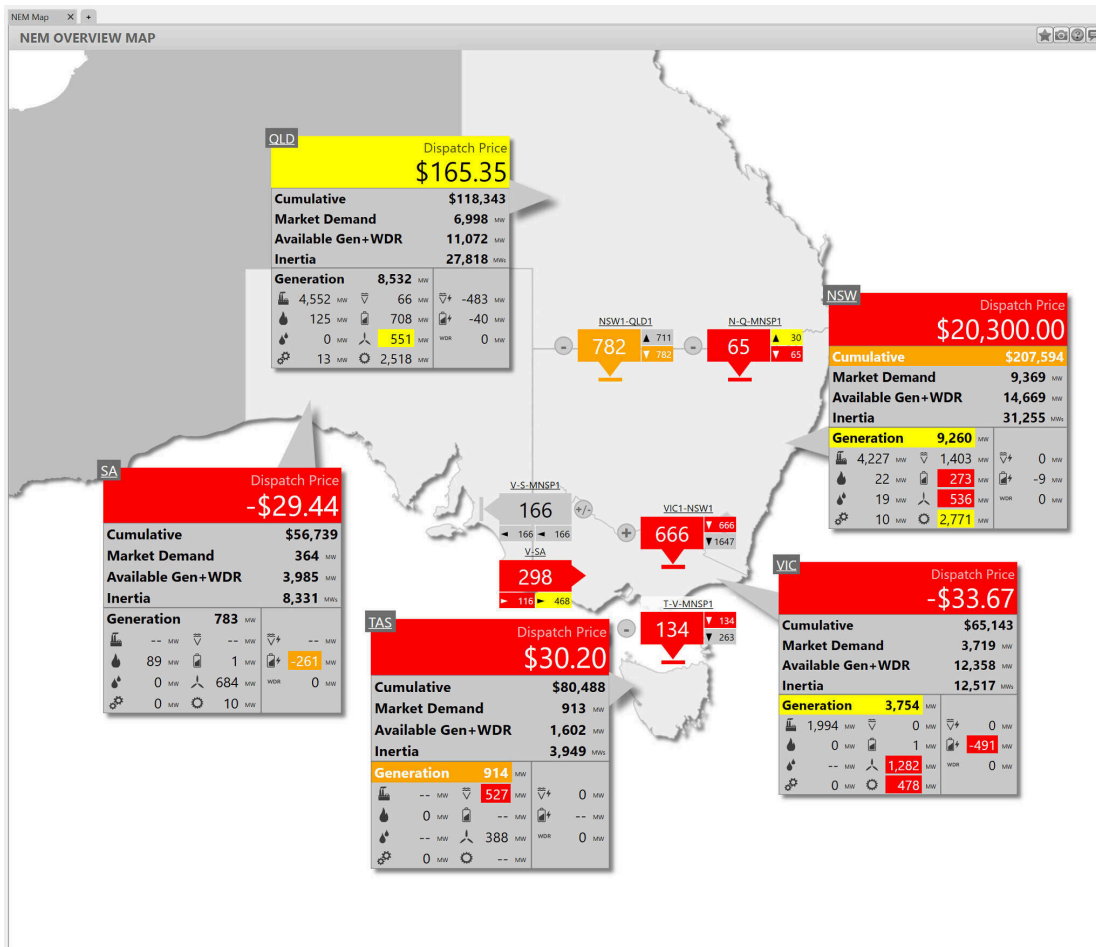
A. Figures in this column are based on the difference between the figures in the preceding two columns. Additionally, rounding differences may be present.

How could the Sydney Ring-South delay have an impact on recent events?

The price chaos is already visible on those days when demand in Sydney is high, and low-cost renewable energy produced in Southern NSW doesn't reach Sydney, but instead flows over the border to Victoria, often against price.

A recent article by WattClarity highlighted the events of the 26th of November, 2025 where AEMO had a challenging time forecasting market demand, with both the heat and fast-moving cloud cover complicating conditions⁶. When a storm cloud briefly covered Sydney, wholesale prices in NSW topped \$20,000/MWh, however instead there were heavy counter-price flows on VNI, with NSW exporting into VIC even though prices were higher in the former. This problem could worsen without the timely build of Sydney Ring-South full capacity to increase capacity into the Sydney CBD.

⁶ Lee, D, WattClarity, "Unpacking some of the drivers of volatility in NSW today, on Wednesday 26th Nov 2025" <<<https://wattclarity.com.au/articles/2025/11/unpacking-some-of-the-drivers-of-volatility-in-nsw-today-on-wednesday-26th-nov-2025/>>>



HumeLink

The timing of HumeLink in the 2026 ISP is optimal. HumeLink will release 1,200MW of constrained energy capacity from the Snowy Hydro that cannot currently get to consumers in NSW at times of peak demand, and ultimately enable NSW to receive the very considerable benefits of the Snowy 2.0 project.

Furthermore, HumeLink will provide additional transmission access to the South-East NSW and Southern NSW REZ, in which 7,500MW of renewable connection enquires have been made. Further, HumeLink will integrate with the South Australia-NSW Interconnector (PEC), which will have access to the South-West NSW, which will increase the potential renewable energy available (based on connection enquiries) to almost 10,000MW.

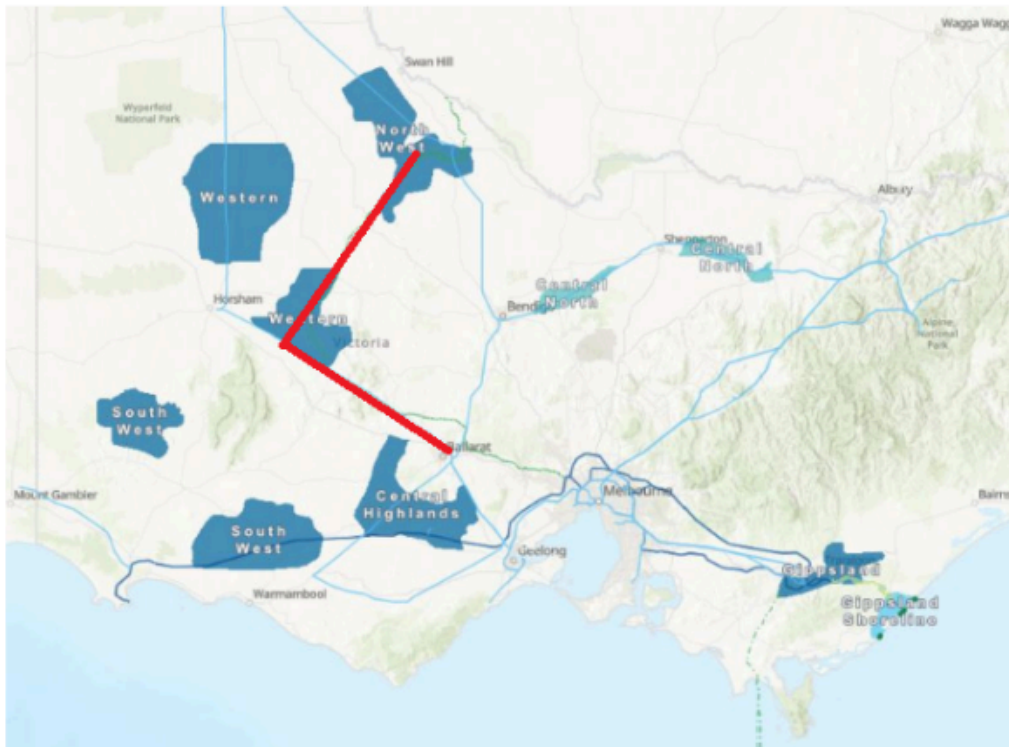
VNI West

VNI West is critical to provide the required renewable energy in the Victorian system so as to enable the Yallourn coal-fired power station to close as scheduled in 2028. The 2 year delay to 2031 of VNI West will mean that the Victorian target of 65 per cent renewables by 2030⁷, as noted in the ISP, will be difficult to achieve. The recent VicGrid Renewable Energy Zone orders, which is under consultation, has the North West REZ (1.7 GW) and Western REZ (2.4 GW) passing through VNI West in addition to South West REZ in NSW⁸. This will be in addition to the line connecting to Snowy 2.0 and existing Snowy capacity.

⁷ 2026 Draft AEMO ISP

⁸ VicGrid, Renewable Energy Zone orders

Figure 2: VNI West path through VicGrid Renewable Energy Zone (approximate red line)⁹



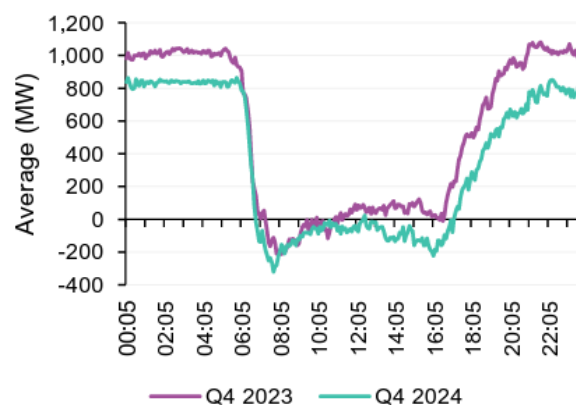
Inadequate transmission currently between Victoria and NSW

Transmission is currently inadequate between Victoria and NSW. The transmission grid needs targeted augmentation to provide capacity, balance resources and unlock Snowy 2.0, existing Snowy assets and Renewable Energy Zones (REZs) in both Victoria and NSW. VNI West is critical to the transition. As displayed below, we are instead experiencing scenarios such as the current link between Victoria and New South Wales being more significantly restricted by transmission constraints. This is also highlighted by an increasing incidence of price separation between the NSW and Victoria regional reference nodes.

Figure 3: Tighter limits were observed on VNI exports across almost all hours of the day¹⁰

Figure 68 Tighter limits were observed on VNI exports across almost all hours of the day

Average VNI export limit (when binding) by time of day



⁹ VicGrid, Renewable Energy Zone orders

¹⁰ AEMO Quarterly Energy Dynamics Q4 2024 January 2025

The best way to address this issue is the timely build of VNI West, which will reduce congestion, connect consumers to cheap renewables, firming and storage, and increase competition.

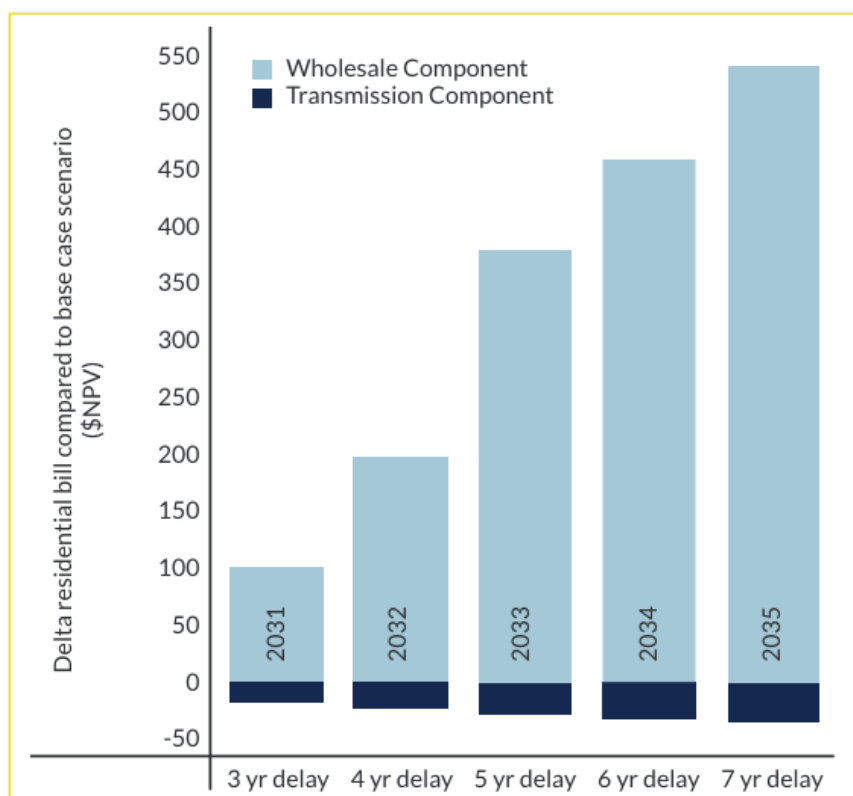
Timely commissioning of VNI West will provide system resilience to cater for unplanned early exit of coal plant and it is for this reason we believe the interconnection should not wait until 2030. Delays could expose the NEM to an unnecessary risk of blackouts and could strand the Victorian capability of Snowy 2.0 for at least five years. We strongly recommend that VNI West be built by 2028-30, which, while still late, is an improvement on AEMO's ISP 2024 timing.

Snowy 2.0 would firm variable renewable output and capture excess or low value generation for discharge during times of energy scarcity, facilitating an orderly transition to the future renewables dominated power system.

The real cost of delaying or cancelling VNI West

Nexa Advisory in their research indicated that timely completion of VNI West will bring down the average price of electricity. The impact of transmission delay in Victoria is particularly pronounced in the three-year and four-year delay sensitivities. The work assessed VNI West delays in the project could lead to Victoria experiencing high average wholesale prices which result from reduced access to supply from NSW during evening peak periods.

Figure 3: Change in residential customer bills if VNI West is delayed by a number of years¹¹



VNI West is therefore essential to the reduction of the wholesale cost of electricity and putting downward pressure on Victorian electricity bills. It is critical to energy resilience and security in the eastern states. It ensures that electricity can be shared between states to meet demand.

¹¹ Nexa advisory, "The real cost of delaying or cancelling VNI West"
<<<https://nexaadvisory.com.au/the-real-cost-of-delaying-or-cancelling-vni-west/>>>

Insurance value from VNI West

VNI West needs to be progressed as urgently as possible to provide valuable insurance against faster-than-expected coal closures or slower-than-expected VRE and storage development. Previous ISPs had demonstrated the importance of recognising the insurance benefits of the VNI West.

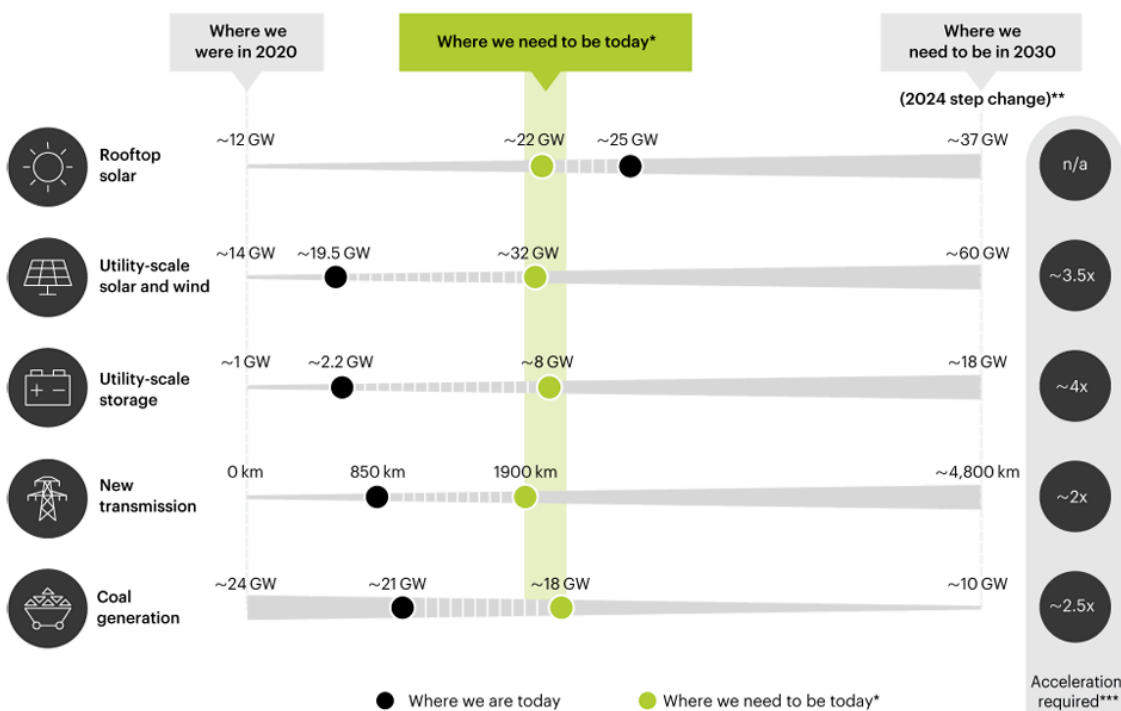
Snowy Hydro therefore believes It is important that VNI West remains as an "Actionable" project and moves to a "Committed" project in the near term while there is an assessment on how the renewable targets in Victoria are able to be met with VNI West is delayed to 2031.

Constrained Delivery

Snowy Hydro welcomes AEMO's models on a "Constrained Delivery" sensitivity to see what happens if industry fails to build infrastructure at the pace assumed under Step Change. The assumptions under this sensitivity may still be too optimistic, however they are a critical part of planning to achieve the jurisdictional target. Capital costs for transmission are assumed to rise by an average of 30 per cent, and projects delayed by 6 months to 2 years. Annual build of wind and solar is still expected to increase substantially, but less than assumed under Step Change. We believe improvements could be made if the final ISP includes more sensitivities if more jurisdictional targets are not met.

The Business Council of Australia (BCA) has attempted to assess this in their recent report "Australia 2035 – Maximising Our Potential"¹² through a bottom-up analysis and takes an investment approach based on current costs and technologies. It focuses on what business needs to do, with the right policies, to shift to a decarbonised economy. In Figure 6 below it demonstrates the concerns with the level of build.

Figure 6: The energy transition journey for the national electricity market (2024)



¹²<https://www.bca.com.au/reports-submissions/reports/australia-2035-maximising-our-potential/>