

2 February 2024

The Hon. Penny Sharpe MLC
 Minister for Climate Change, Minister for Energy
 Department of Climate Change, Energy, the Environment and Water
 New South Wales Government

Submitted via: energy.consult@dpie.nsw.gov.au

Dear Minister Sharpe

NSW Orderly Exit Management Framework Consultation

The NSW government is to be congratulated on the rapid and strong progress towards meeting its goals under the NSW Electricity Infrastructure Roadmap. This includes the completion of a two tender rounds by AEMO Services supporting the addition of over 1 GW of energy storage (tender round 2) and nearly 1.3 GW of new renewable duration and a combination of batteries and long duration energy storage (tender round 3).

NSW has made great progress

The NSW government confirmed the 3 GW “boost” to the 3 GW Central West-Orana Renewable Energy Zone (REZ), delivering a 6 GW REZ, with 4.5 GW to be connected by 2027-28 and confirmed the operators of transmission for the REZ.

Additionally, work on expediting and streamlining departmental processes has seen a number of key renewable projects progress with the addition of 415 MW of solar PV, 1.5 GW of wind and 850 MW of batteries in December 2023 alone.

Type	Solar, MW	Onshore wind, MW	Offshore, wind, MW	Hydro, MW	Battery, MW	CAES, MW	PHES, MW	Total, MW
Committed	0	600	0	0	1,679	0	0	2,279
Anticipated	249	414	0	0	666	0	0	1,329
Proposed	4,886	17,876	26,728	835	12,143	200	3,845	66,513

Table 1: NSW Generation as at October 2023¹

There is a strong pipeline of 3.6 GW of committed and anticipated new renewable generation and battery projects in NSW, outside the REZ, and a further 66 GW of proposed projects, that bodes well for future AEMO Services tender rounds and NSW goals for a low-cost clean electricity system.

Nexa Advisory published a report in July 2023² that demonstrated that Eraring power station could be closed in August 2025 and actionable recommendations that the phased closure could occur as scheduled.

This included:

- **Accelerating new capacity build** through the Federal Capacity Investment Scheme and Clean Energy Finance Corporation and the NSW EnergyCo.
- **Bolster firming capacity** through accelerated auctions to bring on “insurance” supply in Renewable Energy Zones (REZ) and amended Long Term Storage Auction (LTESA) contracts.

¹ https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/generation_information/2023/nem-generation-information-oct-2023.xlsx?la=en

² <https://nexaadvisory.com.au/site/wp-content/uploads/2023/07/Nexa-Advisory-Eraring-can-be-closed-on-schedule-Report-24072023.pdf>

- **Exploring long-duration storage technologies** like flow batteries and liquid air energy storage.
- **Facilitate new renewable generation and storage projects** outside the REZ to take advantage of existing capacity in the transmission system.
- **Advocating for new transmission lines** to support the clean energy transition, and making transmission contestability a requirement for accessing Federal funds for transmission projects.
- **Support distributed energy resources (DER)** that plays a complementary role through residential rooftop solar, however commercial and industrial DER (systems >100kW) can play a significant role immediately.

Given the progress that the NSW and federal governments have made against these recommendations and the additional capacity that has been and will be added to the NSW region ahead of the scheduled closure of the Eraring coal power station in August 2025, there is no rational need to delay that closure.

Further the AEMO Energy Security Target Monitor report of October/December 2023 also identifies that there is no reliability “gap” out to 2033, when the NSW Roadmap and federal schemes are considered³. The NSW Government already has mechanisms in place to monitor and progress future tenders for new capacity, should an unexpected “gap” emerge.

Additionally, a number of recent reports reinforce the fact that Eraring power station can be closed without risks to reliability in NSW and without NSW and ACT consumers paying to keep Eraring power station open^{4,5}. Delaying the closure of Eraring power station also reduces the business case for keeping other coal power stations open, such as Vales power station⁶, resulting in a more rapid exit of coal from the NSW and wider National Electricity Market⁷.

Slow delivery of transmission

The clean energy transition is not progressing as rapidly as anticipate or is desirable. There are many complex reasons⁸, but the continuing delay to the delivery of new transmission projects, particularly interconnectors, presents serious risks to the power system and drives up bills for consumers large and small^{9,10}.

The NSW government is right to be concerned about the delays to the delivery of new transmission but extending the life of an aging fleet of coal power stations is not the appropriate response.

The NSW government has already adopted the solution for transmission delivery delays, with the contestable provision of the transmission for the Central-West Orana REZ¹¹. Opening up the transmission market to competition will ensure that new transmission can be built rapidly and lower cost, while providing access to expertise and international supply chains¹².

³ https://www.energy.nsw.gov.au/sites/default/files/2023-12/2023_ESTM_Report_v2.pdf

⁴ <https://climateenergyfinance.org/wp-content/uploads/2024/01/CEF-NSW-Electricity-report-19-January-2024.docx.pdf>

⁵ https://ieefa.org/sites/default/files/2023-12/The%20approaching%20surge%20of%20renewables%20and%20storage%20leaves%20no%20space%20for%20Eraring_Dec23.pdf

⁶ https://ieefa.org/sites/default/files/2023-12/The%20approaching%20surge%20of%20renewables%20and%20storage%20leaves%20no%20space%20for%20Eraring_Dec23.pdf

⁷ <https://aemo.com.au/consultations/current-and-closed-consultations/draft-2024-isp-consultation>

⁸ <https://nexaadvisory.com.au/site/wp-content/uploads/2022/04/Removing-transmission-roadblocks-discussion-paper-080422.pdf>

⁹ https://nexaadvisory.com.au/site/wp-content/uploads/2022/06/Report-Modelling-Electricity-bill-impact-due-to-transmission-delay_2022-06-07.pdf

¹⁰ <https://nexaadvisory.com.au/site/wp-content/uploads/2024/01/Nexa-Advisory-The-Real-cost-of-delaying-VNI-West-Report.pdf>

¹¹ <https://www.nsw.gov.au/media-releases/orana-rez-powering-ahead>

¹² https://nexaadvisory.com.au/site/wp-content/uploads/2023/06/Nexa-Advisory_Transmission-Contestability-in-Australia-Research-Report-June-2023.pdf

Recommendation:

The Commonwealth Government to make transmission investment contestability a pre-requisite for access to Rewiring the Nation funding.

That in the states, where contestable provision of transmission is already an option, competitive tenders for the nationally significant ISP and non-ISP projects are progressed.

This is not the coal closure mechanism we need

While we do need an orderly exit mechanism for the closure of coal power stations, the NSW government's Orderly Exit Mechanism Framework (OEMF) is not that mechanism.

The OEMF seeks to give ministers powers, that they already have and can exercise, to extend the life and delay the closure of a coal power station. The OEMF also supports the extension of the operation of any "System Significant Generator", such as gas fired plant, and further places the burden of the cost of extending the lives of fossil fuel plant on electricity customers through Transmission Use of System (TUoS) charges.

Cost burden on customers

By funding coal power station extensions through TUoS, electricity bills for all consumers will increase.

For NSW, all NSW electricity customers, and ACT electricity consumer, pay TUoS charges through their electricity bills. By placing the cost of paying the operators of fossil fuel power stations to stay open, this will push up consumer bills at a time of increasing cost of living and cost of doing business pressures.

By funding the extensions through TUoS charges, ACT customers, who have, through the ACT government, purchased low carbon, low-cost electricity, will be paying to keep coal power stations open in NSW.

Additionally, it is not appropriate that the OEMF places the incremental cost of site remediation once the power station finally closes on electricity consumers. The cost of the remediation of the site of the power station, many of which are being repurposed by their owners into firmed renewable energy parks, are unlikely to significantly change with a delay to closure since the owner would have needed to remediate the site anyway.

The tools already available

Governments can already negotiate directly with power stations and there no need for new legislation¹³. The OEMF offers no additional transparency over the bilateral arrangements between a government and a power station. The only new feature to what is possible already, is making the electricity customers pay for a government's decision to delay the closure of coal power stations through their bills, via TUoS charges.

Recommendation:

The costs of the OEMF should be borne by the relevant state government through its budget to reduce the burden on consumers and no element of site remediation costs should be borne by consumers.

¹³ <https://www.afr.com/companies/energy/agl-strikes-deal-with-victoria-to-keep-loy-yang-running-until-2035-20230821-p5dy3m>

Lack of transparency

For power stations within 30 months of their notified closure date, AEMO is not required to undertake any assessment of reliability or test the market for alternative sources of capacity.

Even under the OEMF, the commercial arrangements between the state government and the power station remain confidential, providing no transparency to consumers and providing no additional benefits over the current process where the state government can already negotiate directly with power station owners to reach terms on continuing operation.

In NSW, the Roadmap provides for the Energy Security Target Monitor (ESTM) to provide regular reports on whether energy security targets are being met. The most recent report indicated that the target is being met and will be met out to 2033, even with the closure of Eraring in August 2025¹⁴. The development of the OEMF suggests that the NSW government doesn't trust its own ESTM.

Recommendation:

The contractual details, particularly the cost, of delaying the closure of a power station should be transparently shared to ensure that consumers are getting value for the costs they will have to bear.

Regardless of the notified timing of a power station closure, AEMO must undertake a mandatory assessment of security and reliability before any power station is ordered to continue operation. This assessment must be publicly available and include alternative approaches to providing any necessary additional capacity. The AEMO assessment must also include a mandatory call for industry to over alternative capacity solutions to extending the life of a coal or gas power station.

Coal gaming risk

The current design of the OEMF will encourage owners of coal power stations to bring forward the closure of their plant to trigger the OEMF to access government compensation and contributions to the not insignificant site remediation costs.

Coal power stations are increasingly unreliable¹⁵ and there is a risk that even if ordered to remain open, the power station will not meet capacity expectations. Prolonging the life of coal power stations undermines the reliability, security and affordability of the wider power system, while ensuring emissions remain high and delaying progress to a low carbon economy.

Recommendation:

The OEMF needs to incorporate processes that reduce the risk of the owners of coal power station gaming the framework.

Additionally, since coal power stations are already under-performing and unreliable, clear performance standards and penalties for non-delivery need to be a mandatory requirement in any contract.

The orderly mechanism we need

As AEMO have identified in the Draft 2024 Integrated System Plan (ISP), that the uncertainty of when coal power stations will close places huge security risks on the wider system, particularly if coal power stations close earlier than the announced date¹⁶. The ISP, under the step change scenario, projects an accelerated closure rate for all coal power stations such that there will be no

¹⁴ https://www.energy.nsw.gov.au/sites/default/files/2023-12/2023_ESTM_Report_v2.pdf

¹⁵ <https://aemo.com.au/consultations/current-and-closed-consultations/draft-2024-isp-consultation>, page 28

¹⁶ <https://aemo.com.au/consultations/current-and-closed-consultations/draft-2024-isp-consultation>, page 75

coal power stations connected to the National Electricity Market by before 2040 and 90 % before 2035.

The ongoing uncertainty around the closure of coal power stations presents a significant challenge to investors in new renewable generation and batteries. This is not a new problem but is a problem that is still to be resolved.

The proposed NSW OEFM will exacerbate uncertainty for developers, given that the extension to the operating life of a coal power station will be a political decision, rather than an economic or business decision. The intervention of the OEFM in the electricity market will have significant negative consequences for new investment and bill costs.

By placing the closure of fossil fuel power stations at the whim of the minister of the day, the need for support, through the Roadmap Long Term Energy Service Agreement (LTESA) or the Capacity Investment Scheme, will increase, because the uncertainty in coal powers station closures will drive an increasing need for investment support. There is a very real risk that NSW customers will be paying through their electricity bills for the Roadmap and paying to also keep old and unreliable coal power stations open.

The number one issue for developers and investors in new firming renewable projects is building a solid business case in the face of continuing uncertainty over the life of coal plants. Modelling the future power system and other participants competing to provide energy and system support services is challenging, with the ever-changing dates for coal closures increasing the difficulty of establishing the solid revenue stream needed to underpin an investment case and driving up risk premiums. This is particularly the case for battery developers.

The requirement on coal power stations to provide 3 years notice of their intent to close is not a sufficiently robust regulatory requirement to deliver the certainty that market participants, AEMO as the market and power system operator, and new entrants and their investors need.

Providing clarity to the market on when a coal-fired power station will cease operation provides developers and investors with the confidence to progress new renewable generation and storage projects and will reduce the reliance on support schemes.

There are a number of options for providing clarity in NSW and other jurisdictions:

1. A ministerial declaration on the dates for coal-fired power stations to cease operation would provide certainty for the owners and operators, AEMO as the power system and market operator, and developers of new generation and storage projects.
2. A legislated coal closure mechanism (national or state) would set the closure date for coal-fired power stations in legislation¹⁷. There would need to be a very limited degree of flexibility around the dates, with the owners and operators of the power stations required to define a window for closure, which would narrow as the date approaches. This mechanism would need to incorporate a penalty to ensure compliance with the closure date (e.g. funds in escrow^{18, 19}).

¹⁷

https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Environment_and_Communications/Coal_fired_power_stations/~/_media/Committees/ec_ctte/Coal_fired_power_stations/Final%20Report/report.pdf

¹⁸ <https://grattan.edu.au/wp-content/uploads/2019/10/922-Power-play.pdf>

¹⁹ <https://ccep.crawford.anu.edu.au/publication/ccep-working-paper/6775/brown-coal-exit-market-mechanism-regulated-closure-highly>

Recommendation:

State and federal ministers work to develop an orderly exit mechanism for coal power stations that increases the certainty for investors in the new renewable generation and batteries we need to underpin the clean energy transition.

Thank you for the opportunity to provide input the consultation on the Orderly Exit Mechanism Framework. We look forward to continuing to work with the NSW, state and federal governments on the key steps needed to accelerate the transition to a clean power system. If you would like to discuss any of the issues raised in this submission, please contact me.

Yours Sincerely

Stephanie Bashir

CEO and Principal
Nexa Advisory

About Nexa Advisory

Nexa is a full-service advisory firm. We work with public and private clients including renewable energy developers, investors and climate impact philanthropists to help accelerate efforts towards a clean energy transition. We've been shaping the energy industry for over 20 years. With a proven track record across policy creation, advocacy, political risk assessment and project delivery, we're holistic in our approach and deliver solutions with commercial intent.

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