THE ELECTRICITY OUTAGES AFFECTING FAR WEST NSW IN OCTOBER 2024

Organisation: Tilt Renewables

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GPO Box 16080 Collins Street West Melbourne VIC 8007

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Hon Clayton Barr MP Chair New South Wales Legislative Assembly Committee on Environment and Planning NSW Parliament House Macquarie Street Sydney, NSW 2000

Lodged online via the submission portal

Re: Inquiry into electricity outages affecting Far West NSW in October 2024

Dear Chair:

Tilt Renewables is pleased to submit this response to the Committee's Inquiry into the electricity outages affecting the Far West region of New South Wales (NSW) in October 2024.

Tilt is committed to playing a leading role in accelerating Australia's transition to clean energy. We are one of the largest owners and operators of wind and solar generation and battery storage in Australia, with 1.8 GW of renewable generation capacity across 11 operating wind, solar and battery assets (or under construction), including the Rye Park Wind Farm, the largest operational wind farm in NSW. In addition, Tilt has a development pipeline of over 5.0 GW of wind, solar and storage projects.

As a leading provider of renewable energy in the NSW Far West, Tilt takes its responsibility seriously to provide reliable power while actively engaging with communities, government agencies, and industry stakeholders to improve energy resilience, security and customer-centric energy solutions. Our assets in the region include the 200 MW Silverton Wind Farm and the 53 MW Broken Hill Solar Farm.

Our responses to some of the specific questions outlined by the inquiry appear below.

a. Preparation and Mitigation Strategies by Electricity Providers:

Tilt Renewables has a strong focus on ensuring that our renewable energy assets are always ready to operate, especially during high-demand periods or in the event of disruptions. In preparation for the 2024 summer season, we conducted a comprehensive *Annual Summer Readiness Review*, which included detailed assessments of asset performance, risk mitigation strategies, and emergency response plans. In addition, we and our service providers maintain a robust maintenance schedule, including regular inspections and equipment servicing, to ensure that all assets are operational and capable of handling extreme conditions.

Tilt recognises that Australia's electricity grid is vulnerable to the increasing intensity of natural disasters – whether they are fire, flood or storms. That is why preparation is key to our operating strategy.

Our preparation extends to enhancing grid integration and working with grid operators to identify areas for improvement in power transmission reliability. We engage in ongoing dialogue with industry stakeholders to improve redundancy and develop innovative solutions to support regions like Far West NSW that may be more vulnerable to outages.

Silverton Wind Farm

At Silverton Wind Farm, Tilt's annual preventative maintenance of wind turbines supports an availability target of 97%. However, as a result of the electricity outages affecting Far West NSW in October 2024, we are currently operating below that target level.

The wind turbines have UPS (uninterruptible power supply, a 'life-support' battery used for critical infrastructure which facilitates the safe operation of wind turbines in all conditions) on the switchgear.

As this site has regular planned network outages, we have good access to the GE Vernova remote operating centre in the US to troubleshoot any issues out of normal site hours and they were in contact when the outage first occurred. Technicians live locally in Broken Hill and can usually attend site if needed.

Broken Hill Solar Project

In terms of the Broken Hill Solar Project, the project was restarted quickly after the connection was restored. Again, technicians live locally in Broken Hill and can usually attend site if needed.

b. Overall Effectiveness of Preparation and Mitigation Strategies:

During the October 2024 outage, Broken Hill was "islanded" from the national electricity network, and the Generator Performance Standard for both the Tilt wind farm and the Tilt solar plant prevented generation. However, Tilt's assets in the region were ready to generate once the transmission lines were repaired and local transmission network re-energised.

Tilt worked with Transgrid to get the transmission network back up and running as quickly as possible. Tilt has also held discussions with Transgrid on how our wind farm and solar plant may in the future be able to enter an islanded grid system. We will continue to conduct this important work as part of our preparation for potential future outages and similar events in remote regions.

Tilt's on-the-ground response to the outage involved providing practical support to residents and businesses, which is outlined in detail in **Section F** below (effective communications). Our response was targeted at those left most vulnerable and at risk in the community during and after the outage.

Network challenges

It is clear that while our assets stood ready to generate, the broader electricity network in Far West NSW faced significant challenges. This highlights the need for ongoing investment in grid infrastructure, backup power solutions, more flexible operating protocols to allow for regional assets to export energy locally and regional energy resilience initiatives, with a strong focus on the needs of the customer. Tilt recognises the importance of integrating renewable energy solutions into these efforts to improve overall reliability.

c. Role of NSW Government Agencies and Local Government:

Tilt Renewables recognises the critical role of NSW Government agencies and local governments in preparing for and responding to major electricity outages. Ensuring certainty of energy supply in remote areas requires a multi-faceted approach involving infrastructure upgrades, policy frameworks, support for renewable energy projects, and localised energy solutions.

Tilt believes that closer coordination between energy providers, government agencies, and local authorities is essential to improving the resilience of Far West NSW's power infrastructure. A unified approach can better prepare communities for future outages and ensure a more efficient and effective response when disruptions occur.

d. Implementation of Recommendations from Previous Outages:

Tilt Renewables is committed to continuous improvement, and we regularly review reports, evidence and findings from outages and related incidents to adapt and strengthen our operational and emergency response plans.

We work with our industry partners to explore solutions like microgrids and better energy storage options to increase redundancy and ensure that critical infrastructure remains powered during major outages. We strongly believe that potential solutions like microgrids (a small-scale electricity network connecting consumers to an electricity supply), when integrated with renewable energy sources, can be a powerful tool for enhancing local energy resilience, particularly in isolated and remote regions like Far West NSW.

e. Recommendations on Future Alternative Power Supply Emergency Response and Effective Redundancy:

Tilt Renewables recommends increased investment in grid modernisation to enhance the reliability and resilience of the broader electricity network. This includes improving transmission infrastructure and implementing automated technologies that allow for faster detection and response to faults.

Tilt is able to support Transgrid to enable the conclusions from the Maintaining Supply to Broken Hill Regulatory Investment Test for Transmission (RIT-T, a cost-benefit analysis overseen by the AER). With modifications to Tilt's wind farm and solar plant, these assets can be utilised to supplement the supply from the proposed Hydrostor facility during potential future outages in far-west NSW.

Alternative options to improve the region's energy resilience could include investment in additional BESS capacity in the region and/or connection to other regions of NSW, or potentially even to South Australia, noting that a duplication of the existing Transgrid X2 line was assessed as part of the RIT-T.

f. Effectiveness of Providers' Communications Strategies:

Tilt Renewable's communication focus was on supporting the community as much as possible during the outage, especially Silverton which neighbours the wind farm.

Tilt contacted the Community Consultative Committee which highlighted the need to provide Silverton residents with back-up generators. Tilt also contacted the Broken Hill Local Aboriginal Land Council, Meals on Wheels and Lifeline Broken Hill to offer support.

The support provided by Tilt included:

- Donating 48 generators for Silverton community and Broken Hill Local Aboriginal Land Council
 housing. This included electrical work so generators can be used to run a household in the
 event of future outages.
- Donation to Meals on Wheels to provide food for people in the community.
- Funding of vouchers to be provided through Lifeline to vulnerable people in the community to replace lost food.
- Lifeline was offered a generator, but the organisation requested instead the installation of solar panels to the same value (about \$25,000).

Communicating why our wind and solar farms were not generating power:

Tilt became aware that some people in the community did not understand why our wind and solar farms could not be used to power the town while the transmission line was down.

As a result, Tilt reached out to local ABC radio and the Renew Economy newsletter and provided information explaining that while our assets were in good shape and ready to go, they could not generate energy until the connection to the broader Transgrid transmission network was restored.

Tilt notes that under the two assets' existing Generator Performance Standards - which Tilt is required to comply with under the National Electricity Rules – the operation in "islanded mode" in a Broken Hill microgrid is not contemplated. Tilt received positive feedback from the Silverton community for stepping in and supporting vulnerable groups in the community during this time.

g. Other Related Matters:

Tilt Renewables believes that future energy resilience in Far West NSW will depend on innovative solutions that blend traditional infrastructure with emerging technologies. This includes the expansion of renewable energy generation, the integration of energy storage systems, and exploring the development of microgrids. We are committed to continuing our role as an active and supportive partner in the Far West region.

Conclusion:

Tilt Renewables remains committed to being a reliable energy provider and a responsible corporate citizen in Far West NSW. We are dedicated to improving energy resilience through thoughtful planning, collaboration, and innovation. We welcome the opportunity to continue working alongside government agencies, local authorities, and industry peers to ensure that Far West NSW is better prepared for future electricity outages and disruptions.

We thank the Committee for the opportunity to provide our input and look forward to contributing to ongoing discussions on energy resilience in the region.

Thank you for the opportunity to provide this submission to the Committee's inquiry into the Far West outages of October 2024. Please feel free to contact nathan.vass@tiltrenewables.com should you have any questions or to wish discuss any aspect of this submission.

Yours sincerely,

Nathan Vass

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