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NSW Department of Planning, Industry and Environment

Lodged via email: Electricity.Roadmap@dpie.nsw.gov.au

28 October 2021

Re: Infrastructure Safeguard (EII Act 2020 Part 6) Consultation Paper

Dear Sir/Madam,

Tilt Renewables welcomes the opportunity to comment on the NSW Department of Planning, Industry and Environment's Consultation Paper on the Infrastructure Safeguard (EII Act 2020 Part 6) as part of the Electricity Infrastructure Roadmap.

Tilt Renewables (TLT) is an owner, operator and developer of renewable energy and storage projects in Australia, owned by the Powering Australian Renewables (PowAR) group. PowAR is the largest owner of wind and solar generation in Australia with more than 1,313 MW of renewable generation capacity, including seven operating wind and solar farms, two others in the final stages of commissioning and one wind farm (Rye Park) commencing construction in 2021.

TLT supports the ambitious agenda that the NSW Government has set out to prepare the state for the expected retirement of much of its thermal generation fleet in the coming decade, and to manage the transition to lower-cost, renewable energy generation and storage. TLT also strongly supports the engagement and consultative approach to date with Industry and stakeholders in developing the roadmap and associated frameworks and this collaborative approach and culture should be embedded in the ongoing governance and structures established to deliver on the vision.

Guiding Principles

TLT commends the NSW Government's intent in establishing guiding principles for assessing policy options relating to the Infrastructure Safeguard, and while it supports these principles, the following changes (in red) are recommended to the guiding principles.

Robust frameworks • ensure approaches are fit-for-purpose, reflect industry best practice **and embed genuine collaboration with industry and key stakeholders**

Flexibility • allow the Consumer Trustee to innovate to serve consumer interests and respond to changing market conditions, **without causing delays and creating barriers to the investments needed**

Transparency • transparency of functions and processes relating to the Infrastructure Safeguard

Well integrated with the National Electricity Market frameworks • alignment with AEMO processes (e.g., scheduling and dispatch) and supporting efficient markets **where they deliver best outcomes for consumers**

Social licence • ensure transmission and project infrastructure development is well coordinated and achieves local community support

Governance and risk management • oversight of the Consumer Trustee and managing key risks **to achieve best commercial outcomes for consumers.**

In our submission we have attempted to respond directly to the questions in the consultation paper.

Infrastructure Safeguard

The Infrastructure Investment Objectives Report (IIO Report) is intended to be comparable to AEMO's Integrated System Plan (ISP) and Energy Statement of Opportunities (ESOO) reports, with the important addition that the IIO Report would also outline new generation, long duration storage, and firming infrastructure requirements to meet the scheme objectives at the lowest cost to consumers.

Currently, when making key forecasts and modelling, AEMO must follow the Australian Energy Regulator's (AER) Forecasting Best Practice Guidelines (FBPG) and it also must consult on its Forecasting Approach at least every four years. In addition, AEMO under the rules are required to appoint and fund an independent panel to engage with the ISP focusing on long term interests of consumer and bringing in the consumer voice. The NSW Government can consider adopting this approach for the IIO development to embed transparency and accountability. This facilitates transparency around the methodologies used and allows stakeholders to engage with the appropriateness of methods and suggest possible improvements. In addition, AEMO must also assess its forecast accuracy annually and publish a Forecast Accuracy Report which outlines planned improvements to mitigate issues found.

TLT considers it desirable to place similar requirements on the Consumer Trustee when preparing the IIO Report. For example, the Consumer Trustee could be required to make the forecast methodology, model assumptions, and modelling results available through public consultation on an annual basis rather than 2 years. Furthermore, the Consumer Trustee could be required to assess its forecast accuracy and outline improvements to its methodology in between annual updates if there are inaccuracies found or material changes in key inputs occur.

It is critical that engagement and input from the right stakeholders is sought regularly. The energy transformation and electrification of all sectors requires reaching stakeholders within other industries also, and a strong engagement framework and culture needs to be embedded into the governance and risk frameworks to ensure genuine and targeted engagement.

Managing uncertainty and risk is critical to the success of the NSW Government vision and structures being established. TLT supports the NSW Government's view in that "The Consumer Trustee is required to adapt to any external changes and improved forecasts as they develop. Scenarios are expected to change materially over time and the Consumer Trustee will need to ensure planning decisions are based on the best available information." The Consumer Trustee's risk management should be focused on managing sensitivities and materiality, avoiding becoming a bottleneck in delaying projects, contracts and infrastructure build whilst waiting to get the most accurate information.

We urge the Department to adopt a more flexible approach to determining the needed infrastructure investments. This avoids the risks of a single view dominating modelling assumptions and thus investment decisions over the long term.

LTES Agreements

TLT believes that placing the firming risk on individual generators by making the default contracts fixed-shape/fixed-volume will incur significant costs and risk premiums on each individual generator (especially wind projects which at an individual level have variable hourly profiles, despite generally providing diversified energy output across days and seasons).

As more wind comes online in NSW, it is likely that high market price events will often correlate with periods when wind generation is below average. The fixed shape/fixed volume swap could result in the generator suffering a considerable financial penalty during low wind/high priced periods: low generation revenue (due to poor wind conditions), coupled with high swap payouts (based on the fixed shape/volume). From both a project financing and equity perspective, this presents a considerable risk to the project. In addition, there are limited and less efficient "firming" options available at the local/project level, when compared with the

portfolio perspective, diversity and wider contracting options (and market power) that the Consumer Trustee would have.

In line with the flexibility and Risk principles, we urge the NSW Government to review these arrangements prior to embedding in legislation and regulation.

Furthermore, recent market developments revealed the importance of essential system services (ESS) that have not previously been valued by the market (e.g., system strength, inertia, primary frequency control). Over the planning horizon of the NSW Roadmap, essential system services are expected to increase in importance and value and may become increasingly unbundled from bulk energy supply. For example, storage providers and the demand side may be able to provide frequency control services while consuming. Synchronous condensers and certain energy storage technology is also able to provide inertia without bulk energy supply. There appears to be an opportunity to incorporate LTES Agreements for ESS in the NSW Roadmap design. This fourth type of 'ESS LTES Agreements' may be unbundled from meeting the reliability standard or Energy Security Target and could instead meet additional system security objectives. Such extension to the current menu of LTES Agreements would future proof the NSW Roadmap and would provide much needed investment signals for ESS.

LTES Agreements and access rights

In previous submissions and engagement with NSW Government, TLT has raised concerns that, according to the current policy proposal, a project within a REZ will be required to secure an LTES Agreement, whether or not this is required or desired by the project proponent. In our view, wishing to locate within a strong area of the transmission network should not obligate a proponent to enter into an LTES Agreement with the Consumer Trustee. We continue to urge the Department to consider how it can better separate the requirements for REZ access and market contracting mechanisms. It should be feasible for a proponent to locate within a REZ without being forced to tender for LTES Agreements.

The 20-year development pathway operationalised over a 10-year tender plan reflects the ambition of the scheme and the commitment by the NSW Government to meeting its objectives of the NSW Roadmap. TLT support the intent and welcome the attention given to the need for tendering for projects located both within, and also outside of the REZs. This is important as some projects could locate near load centres outside of REZs and thus may not require access rights.

TLT broadly supports the intent of REZ development as an approach to coordinating network and generation investment. However, we also consider that valuable investments may also occur outside of REZ areas. Regulatory framework design should still allow for such valuable projects to be recognised and supported.

It is important to recognise that REZ access fees will necessarily be passed on to consumers/offtakers and costed at generator's effective cost of capital, which will be higher than that of a TNSP or government. Therefore, NSW Roadmap objectives would be best met by keeping access fees as low as absolutely necessary to cover the costs of the REZ. Alternatively, the cost of the REZ "backbone" could be recovered through regulated infrastructure and generators pay directly for their specific project connection costs to that backbone.

Safeguard governance and controls

The electricity market, including the derivatives market, is characterised by changing market conditions and exogenous impacts. The practical benefits and limitations of various parameters within which the Consumer Trustee may employ trading strategies in anticipation of short- and long-term changes in market conditions and in response to exogenous 'shocks', need careful consideration.

The proposed design of the LTESA scheme will require virtually all new generating capacity in the state to enter into options contracts, administered by the Consumer Trustee. As the scheme progresses, the volume of contracts the Consumer Trustee administers will increase over time. The risks inherent in the contracts may be positively correlated; managing the financial risks may require an increasing level of participation by the Consumer Trustee in the derivatives market. Given that the objective of the scheme is to provide a

support for long-term investment in generation and storage, it is important that the Consumer Trustee's trading activity does not undermine investors' confidence in the price signals provided through derivatives prices.

To avoid unintended outcomes, a periodic review may be desirable to identify and, if needed, address risks related to the Consumer Trustee's potential impact on derivatives markets. As time progresses a greater proportion of the generators and storage operators in the market will face financial incentives besides those provided through the wholesale market prices, driving their commercial interest and thus behaviour. Whether there may be any 'systemic risk' in this proposed approach also needs careful consideration.

Finally, TLT believes it is important for the NSW Government and Department to consider how the Consumer Trustee will review the efficient and effective functioning of the scheme, so that the design may be refined over time as appropriate, informed by the implementation experience. To allow for this fine-tuning, it will be important that the Consumer Trustee maintains a significant degree of flexibility in the final design of the contracting framework, and high degree of transparency with Industry and stakeholders, so that any necessary adjustments can be made to reflect learnings and market innovation over time.

Thank you for the opportunity to comment and we look forward to continuing to work with the Department to refine the design of the NSW Electricity Infrastructure Roadmap. If you would like to discuss any of the issues raised in this submission, please contact myself on [REDACTED]

Regards,

A handwritten signature in blue ink, appearing to read 'Nigel Baker'.

Nigel Baker

Executive General Manager – Generation & Trading