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Australia

Rebecca Knights
Department for Energy and Mining
Energy and Technical Regulation Division
ADELAIDE SA 5001
via email: demsaenwg@sa.gov.au

20/08/2021

RE: Stand-Alone Power Systems – Tesla submission

Dear Ms Knights,

Tesla Motors Australia, Pty Ltd (Tesla) welcomes the opportunity to provide a submission to SA's stand-alone power system implementation consultation (the consultation).

Tesla's mission is to accelerate the transition to sustainable energy. Tesla is the world's largest supplier of energy storage and electric vehicles and the largest aggregator of DER in Australia, with advanced software capabilities. We partner with leading energy companies, networks, and invest across the entire supply chain.

In Australia, battery storage for regional and remote areas has proven particularly valuable - providing essential system stability, voltage and frequency services locally, reducing electricity costs and supporting reliability outcomes for households and businesses at fringe of grid locations. Tesla's stand-alone power solutions leverage its existing capabilities in the design, manufacture and deployment of its energy storage and associated products, such as the Tesla Powerwall, unit level controllers, and a frequency-based load sharing scheme. Larger microgrid solutions can also integrate Tesla Powerpack storage systems with solar photovoltaic (PV) assets and existing generation assets where it makes sense.

Tesla has been actively involved throughout the AEMC's framework development for stand-alone power systems (SAPS), providing ongoing support for the accelerated uptake of SAPS across all jurisdictions, where it is efficient to do so and where customer protections are maintained. There are significant benefits to be gained from SAPS for customers, network providers and State Governments more broadly. Accordingly, we commend SA on implementing this beneficial reform.

Accelerating the transition to SAPS models should be a key objective given the time-bound nature of network investments, with network businesses making grid investment and maintenance decisions today that will influence off-grid solution deployments for the next 30 plus years. As SAPS are still an emerging sector, the SA Government could also consider additional incentives outside of traditional regulatory return models to promote innovative non-network solutions and build initial consumer and network confidence. Aligned incentives would not only simplify the decision-making framework, but drive additional private investment in new forms of energy supply, creating further benefit for the off-grid market segment.

Specific to the consultation questions, Tesla:

- **Supports SA implementing the SAPS framework** – to provide cost, reliability and resiliency benefits
- **Supports the preferred approach for immediate state-wide implementation** (option 2) noting the benefits are likely to be seen across a broad range of sites, and optionality to respond quickly to extreme weather events and natural disasters such as bushfires will be increasingly important
- Encourages SA Government to work with SAPN and the AER to **consider expanding incentives for SAPS**, as well as promote a **broader application of non-network options**, noting benefits across the distribution and transmission grid to avoid (or defer) significant network expenditure by leveraging alternative technologies (e.g. using batteries to provide virtual transmission, community-scale storage for network services, and continuing the work of the SA Grid-scale Storage Fund to recognise the ability for VPPs to support the wider network).

Tesla looks forward to continued engagement with SA Government in supporting the state's transition to sustainable energy.

Sincerely,

Tesla Energy Policy Team

