



Hon Ben Wyatt MLA
Treasurer; Minister for Finance; Energy; Aboriginal Affairs

Our ref: 69-04430 / 69-04431

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Estimates and Financial Operations Committee
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Dear Ms Sharpe

2017-18 BUDGET ESTIMATES HEARINGS – QUESTIONS PRIOR TO HEARINGS

Please find attached the following answers to the questions prior to hearings requested by the Estimates and Financial Operations Committee:

- Department of Treasury – asked by the Hon Martin Aldridge MLC
- Department of Treasury – asked by the Hon Diane Evers MLC
- Electricity Networks Corporation (Western Power) – asked by the Hon Tim Clifford MLC

I trust this information is of assistance.



BEN WYATT MLA
TREASURER; MINISTER FOR FINANCE;
ENERGY; ABORIGINAL AFFAIRS

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ESTIMATES AND FINANCIAL OPERATIONS COMMITTEE
2017-18 BUDGET ESTIMATES HEARINGS – QUESTIONS PRIOR TO HEARINGS

Electricity Networks Corporation (Western Power)

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Hon Tim Clifford MLC asked:

- 1) What trials has Western Power undertaken in partnership with other organisations to “understand the commercial implications of integrating technologies (renewable energy, battery storage, smart grid, and electric vehicles) in an urban environment” as outlined on page 545 of Budget Paper 2?

Answer:

The Stand-alone power system (SPS) trial involved six systems being installed on rural properties for 12 months in the great southern region. Western Power estimates that individual SPS could be deployed as a more efficient service to at least 3000 Western Power customers over the next ten years. This has the potential to result in a net benefit of hundreds of millions of dollars compared to replacing exiting network assets over 50 years.

The Battery Energy Storage System (BESS) trial in Perenjori is a network connected community scale battery that will contribute towards network stability and provide customers with a more reliable electricity supply. The BESS is expected to reduce 80% of the reliability issues experienced by the Perenjori community. To further extend the reach of BESS, customers are able to opt-in to SMS communication advising when they are on BESS allowing them to reduce their usage while the network outage is restored.

Microgrids can provide a lower cost alternative to network extension or replacement in regional areas. Following community consultation, Western Power is currently investigating the optimal microgrid/network integration model through its Kalbarri trial, which aims to utilise a combination of energy supply options such as solar (from residential and commercial PVs), wind (existing windfarm) and battery storage. This project is currently in the procurement phase with strong interest from a wide number of proponents. It is expected the financial viability of microgrid infrastructure will improve as component prices decrease over time.

Western Power has also invited the community and industry to assist with its investigation into alternative (non-traditional) solutions to shift and/or reduce peak demand in the Mandurah Meadow Springs area as an example. Incorporating community and industry feedback will enable Western Power to develop a suite of effective demand management and alternative network development tools to achieve optimised asset utilisation. The business case for this project is due to be completed in late 2017.

- 2) What were the results of these trials?

Answer:

SPS: SPS customers avoided an average of over 65 hours of outages compared to their network connected neighbours, with around 92% of their electricity being provided by solar panels. Customer satisfaction with the systems was substantially higher than that of the network connected experience, with customers rating their overall satisfaction as 9.4 out of 10 for SPS compared to 5.6 for the network experience.

BESS: The BESS was installed in May 2017 and has been undergoing its commissioning tests. The BESS was due to be operational in July 2017. However, as with any new technology trial, issues can occur. Several issues with the technology have delayed the start. Western Power anticipates the facility will be fully operational in Q4 2017. Western Power is working with its stakeholders to provide timely updates.

Kalbarri microgrid: Construction is expected to take place in 2018, with delivery in early 2019.

- 3) With reference to page 546 of Budget Paper 2, please provide details about the peer-to-peer trading trials that Western Power has engaged in, including the results of these trials?

Answer:

Peer-to-Peer is a component of the ARENA funded White Gum Valley project being delivered in partnership with Curtin University, Landcorp, Synergy and other private sector partners. The project seeks to facilitate the sharing of behind the meter energy resources between different strata members ensuring a systematic allocation of benefits, unlocking the opportunity for strata title dwellings to access the benefits of behind the meter energy resources currently available to freehold dwelling owners. Research for this project is ongoing.

A handwritten signature in blue ink, appearing to be 'Bryce', with a large loop at the end.