Jemena Electricity Networks (Vic) Ltd

Response to the Annual Regulatory Information Notice issued 3 February 2016 for the 2019 Regulatory Year

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Jemena

6. DEMAND MANAGEMENT INNOVATION ALLOWANCE

In this section, JEN responds to section 6 of Schedule 1 to the RIN, which relates to the Demand Management Innovation Allowance (**DMIA**).

6.1 IDENTIFICATION OF DEMAND MANAGEMENT PROJECTS OR PROGRAMS

Paragraph 6.1 of Schedule 1 to the RIN requires JEN to identify each demand management project or program for which JEN seeks approval.

JEN seeks approval for one project for the Relevant Regulatory Year, which is outlined below:

- Discovery Assessment Service – a study by [redacted] investigating a scalable energy Internet of Things (**IOT**) platform.

A scalable Energy IOT Platform refers to a demand management system utilising appliance level and/or "gateway" device hardware in conjunction with a cloud-based management system to aggregate and orchestrate load curtailment in demand response events. A desktop study was undertaken by [redacted] in 2019.

The two key objectives of this study were:

- Assessment of JEN's Demand Management (**DM**) Roadmap.
- Validation of [redacted] scalable IOT Platform in the context of the DM roadmap.

6.2 DETAILED INFORMATION – SCALABLE ENERGY IOT PLATFORM STUDY

Paragraph 6.2 of Schedule 1 to the RIN requires JEN to provide detailed information for each demand management project or program identified in response to paragraph 6.1 of Schedule 1 to the RIN.

6.2.1 COMPLIANCE

Paragraph 6.2(a)(i) of Schedule 1 to the RIN requires JEN to explain how JEN's initiative complies with the DMIA criteria set out in section 3.1.3 of the Demand Management Incentive Scheme (**DMIS**).

This study explored different demand response techniques, roadmap for future actions and requirements of scalable Demand Response (**DR**) platforms.

The project also has the potential to improve the efficiency of Jemena's future network investments through the deferral or avoidance of network augmentation capex and to mitigate supply risks on capacity constrained feeders.

JEN considers that works undertaken in the 2019 Regulatory Year comply with the DMIA criteria, set out in section 3.1.3 of the DMIS, in the following ways:

1. This study is undertaken by [redacted] on behalf of JEN to design a demand response program to help meet customer demand by shifting or reducing demand for standard control services through non-network alternatives, or the management of demand in some other way, rather than increasing supply through network augmentation.

2. This study will help design future demand management trials for peak demand management projects such as residential demand response known internally as 'Power Changers 2.0'—which aim to address specific network constraints by reducing demand on the network at the location and time of the constraint.
3. This study also explored broad-based demand management initiatives such as underlying DR systems designed to build demand management capability and capacity and explore potentially efficient demand management mechanisms, including but not limited to new or original concepts.
4. The proposed trials in the study are non-tariff based projects and the claimed costs are not recovered under any other incentive scheme.
5. Costs recovered under the DMIS are not recoverable under any other jurisdictional incentive scheme.
6. The expenditure for this study is operating expenditure.

6.2.2 NATURE AND SCOPE

Paragraph 6.2(a)(ii) of Schedule 1 to the RIN requires JEN to explain the nature and scope of the initiative.

The scope of work for the Scalable energy IOT platform a study by [redacted] in 2019 included the following key deliverables:

Validation of JEN's Demand Management roadmap

JEN's staged demand response roadmap shows the pathway from proving the various DR streams at scale to developing the portfolio DR capability capable of being deployed as a business-as-usual non-network solution to identified network constraints.

Validation of [redacted] scalable IOT platform in the context of the DM roadmap

The study explored the possibility of a proof of concept (**PoC**) for a DR Platform that can aggregate and orchestrate four different DR streams (Behavioural Residential DR, Direct Load Control, Commercial & Industrial DR and Voltage Reduction) to deploy DR capacity in response to DR Events called by JEN as required to specifically address real network needs on constrained feeders in target suburbs in the future.

6.2.3 AIMS AND EXPECTATIONS

Paragraph 6.2(a)(iii) of Schedule 1 to the RIN requires JEN to explain the aims and expectations of the initiative.

The two key objectives of this study were:

- Assessment of JEN's DM roadmap
- Validation of [redacted] scalable IOT platform in the context of the DM roadmap.

The expected outcome of the above was to decide what, if any, demand response programs JEN would deploy and/or trail over the 2019-20 summer period, including a scalable IOT platform.

6.2.4 SELECTION PROCESS

Paragraph 6.2(a)(iv) of Schedule 1 to the RIN requires JEN to explain the process by which the project was selected, including its business case and consideration of any alternatives.

JEN has undertaken a number of trials in the demand management area, including:

- Residential demand response (behavioural) program ('Power Changers')
- Commercial & Industrial customer demand response
- Airconditioning load control
- Voltage reduction.

Having undertaken these trials, JEN identified a need to understand what system capabilities are required that will allow it to provide an integrated and scalable DR solution in the future to defer network augmentation. JEN remains in ongoing discussions with various vendors, and [redacted] unique expertise and product offering specifically in the IOT space led to the selection of them to conduct this study. Specifically, [redacted] product is unique in its hardware agnostic platform, differentiating it from other vendors that we have engaged with. Importantly, should JEN pursue implementation of any scalable IOT platform, vendor selection is subject to its procurement policy which would involve further selection processes.

6.2.5 IMPLEMENTATION

Paragraph 6.2(a)(v) of Schedule 1 to the RIN requires JEN to explain how JEN's initiative was implemented.

The Discovery Assessment Service study by [redacted] was undertaken between March 2019 and July 2019. This included consultation with various internal and external stakeholders.

6.2.6 IMPLEMENTATION COSTS

Paragraph 6.2(a)(vi) of Schedule 1 to the RIN requires JEN to explain the implementation costs of JEN's project.

The actual expenditure for this project is $24,721, and reflects the amount paid to [redacted] in 2019 for the study and report.

6.2.7 BENEFITS

Paragraph 6.2(a)(vii) of Schedule 1 to the RIN requires JEN to explain any identifiable benefits that have arisen from JEN's project, including any off peak or peak demand reduction.

This study is another positive step in JEN's journey to develop demand management capabilities which enable deployment of non-network solutions in response to network constraints. Any benefits such as demand reduction may be realised in future years as elements of the study's recommendations are deployed.

6.2.8 ASSOCIATED COSTS

Paragraph 6.2(b) of Schedule 1 to the RIN requires JEN to state whether the costs associated with JEN's initiative have been recovered under other schemes.

The associated costs claimed under DMIA for the project have not been:

- Recovered under any other jurisdictional incentive scheme,
- recovered under any other Commonwealth or State Government scheme
- included in the forecast capital or operating expenditure approved in the 2016-20 Distribution Determination or recovered under any other incentive scheme in that determination.

6.2.9 TOTAL AMOUNT OF DMIA SPENT AND HOW THIS AMOUNT WAS CALCULATED

Paragraph 6.2(c) of Schedule 1 to the RIN requires JEN to state the total amount of the DMIA spent in the Relevant Regulatory Year and how it was calculated.

The actual expenditure for the project is $24,721, and reflects the amount paid to [redacted] in 2019 for the study and report.