

7. DEMAND MANAGEMENT INCENTIVE ALLOWANCE MECHANISM

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| 7.1 | Identify each demand management eligible project (DMIAM) for which CitiPower seeks approval. | <p>Electrical Vehicle (EV) Hotspots Trial The EV hotspots trial is a research project to identify and understand EV charging on the United Energy Network.</p> <p>UE BESS The trial includes the installation of 37 pole to batteries across the network.</p> |
| 7.2 | <p>For each demand management eligible project (DMIAM) identified in the response to paragraph 7.1:</p> <p>(a) explain how it complies with project criteria detailed at section 2.2.1 of the demand management innovation allowance mechanism;</p> | <p>EV Hotspots Trial The project will research, develop, and implement demand management capability through research and a smart algorithm to identifying and understanding the impact of electric vehicle (EV) charging on the United Energy network. EV chargers are not currently visible to distribution businesses (customers are not required to notify us) and can impact the management of the network in their vicinity. By understanding and profiling EV customer charging usage, the project aims to gain insights into the EV load that will need to be managed both now and into the future.</p> <p>The trial is currently being implemented across the UE network and if successful could be expanded further.</p> <p>This is the first time the business has utilised a smart algorithm in this way to address emerging and increasing market segment of EV owners and demand, now and into the future.</p> <p>This trial has the potential to reduce long term network costs by understanding the impact of EV charging on demand we can strategically plan our network to manage peak demand periods and lower the need for, and cost of network augmentation.</p> <p>UE BESS The project investigates the technical and commercial feasibility of using pole-mounted batteries connecting to the LV network to manage constraints on the distribution network and increase the hosting capacity of distributed photovoltaics (PV) systems.</p> <p>This is the first time the business has implemented a pole top battery solution. This trial will help us understand the feasibility of the technology, implementation of new communication protocols, and aspects of the physical design of the system. In addition, the trial will help to understand customer and community sentiment and support for battery projects.</p> |

| | | <p>This trial has the potential to reduce long term network costs by understanding the impact of increasing hosting capacity of local PV systems, to support management of peak demand and defer cost of network augmentation.</p> | | | | |
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| 7.2 | <p>(b) submit a compliance report in accordance with section 2.3 of the demand management innovation allowance mechanism.</p> | <p>EV Hotspots Trial For an outline of this project and a summary of how this project meets the DMIAM criteria please see 7.2(a) above.</p> <p>The costs for the United Energy EV Hotspots trial are not recoverable under any jurisdictional or other scheme and are not included in our forecast capital or operating expenditure approved for the 2021–2026 regulatory period.</p> <p>Through our research, we have achieved positive outcomes including valuable insights on EV hotspots on our network. One of our accomplishments includes the successful identification of over 4642 EV chargers on the United Energy network. This information allows us to categorize charging profiles into four distinct types, enabling us to better understand the impact on network demand.</p> <p>We can now more accurately determine the frequency of charging on the network, particularly during peak periods, which will aid in making informed decisions regarding network planning. New findings in the program include the algorithm to disaggregate data in holiday destinations such as the Mornington Peninsula to identify the EV load from other household appliances. It is also utilised to determine any curtailment issues that may have been caused by EV charging demand. In addition, with over a full year of data, we can compare growth rates of type two versus type one charging on our network.</p> <p><u>Cost overview</u></p> <p>The cost of the EV Hotspots Trial project for 2023-24 is shown below:</p> <table border="1" data-bbox="792 1174 1285 1305"> <thead> <tr> <th data-bbox="792 1174 1077 1262">EV Hotspots</th> <th data-bbox="1077 1174 1285 1262">Total DMIA</th> </tr> </thead> <tbody> <tr> <td data-bbox="792 1262 1077 1305">\$ 123,063</td> <td data-bbox="1077 1262 1285 1305">\$ 123,063</td> </tr> </tbody> </table> | EV Hotspots | Total DMIA | \$ 123,063 | \$ 123,063 |
| EV Hotspots | Total DMIA | | | | | |
| \$ 123,063 | \$ 123,063 | | | | | |

| | | <p>UE BESS</p> <p>The costs for the United Energy BESS project are not recoverable under any jurisdictional or other scheme and are not included in our forecast capital or operating expenditure approved for the 2021–2026 regulatory period.</p> <p>This program has provided valuable insights including processes and communication protocols to provide accurate information for the battery to operate under instruction for demand management activities, and the ability for the retailer to utilise battery operations for the FCAS market.</p> <p>The BESS solution is custom built which through the process has identified some inconsistencies with performance. This is a key learning, and we expect as the technology continues to develop, improved performance and reliability for demand management function will continue.</p> <p>Customer and stakeholder management continue to deliver insight on customer sentiment of community batteries and adoption in local communities. In addition to consideration of noise impact to customers in terms of proximity to household locations.</p> <p><u>Cost overview</u></p> <p>The cost of the EV Hotspots Trial project for 2023-24 is shown below:</p> <table border="1" data-bbox="792 887 1285 1018"> <thead> <tr> <th data-bbox="792 887 1077 970">UE BESS</th> <th data-bbox="1077 887 1285 970">Total DMIA</th> </tr> </thead> <tbody> <tr> <td data-bbox="792 970 1077 1018">\$ 2,420,411</td> <td data-bbox="1077 970 1285 1018">\$ 2,100,000</td> </tr> </tbody> </table> <p>The total amount of DMIA spent for 2023-24 year by United Energy for the abovementioned project was \$ 2,223,063.</p> | UE BESS | Total DMIA | \$ 2,420,411 | \$ 2,100,000 |
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| UE BESS | Total DMIA | | | | | |
| \$ 2,420,411 | \$ 2,100,000 | | | | | |
| 7.3 | Provide an overview of developments in relation to projects or programs completed in previous years of the regulatory control period, and of any results to date. | No further findings identified. | | | | |
| 7.4 | Provide any other required information as specified by the demand management innovation allowance mechanism | Not applicable. | | | | |

Note: Information provided in response to paragraph 6 of Schedule 1 to this Notice will constitute the provision of an annual report for the purposes of paragraph 3.1.4.1 of the Demand Management Incentive Scheme applying to CitiPower (as set out in the 2016-20 Distribution Determination)