6. Demand Management Incentive Allowance

6.1. Current DMIA Projects

emPOWERing You Trial (formally known as the Tariff Trial)

Network tariff reform is required to deliver on our business strategy of predictable and sustainable pricing. However, we will not be able to successfully deliver on our network tariff strategy without the support of our customers. Therefore the objectives of the emPOWERing You trial include both technical and customer impact aspects. The objectives include:

- Utilise advanced meters and real demand based network tariffs to analyse customer behaviour and customer charge impacts resulting from tariff reform
- Provide sufficient data to support robust analysis which will underpin future refining of the network tariff strategy and network tariff development
- Demonstrate that TasNetworks can effectively support its customers through tariff reform, by providing a platform to consider communication, technologies and to test customer understanding of network tariff offerings
- Demonstrate that customers can be empowered to reduce bills in the short and long term, and that effective tariff choices can help customers make optimal investment decisions in emerging technologies

Battery storage on Bruny Island

The purpose of this project is to prove that distributed energy storage can be used to defer network investment. It involves the installation of customer energy storage systems on Bruny Island to manage peak load on the cable and reduce the use of diesel. It will also provide validation on the parameters of distributed storage as a solution to network issues.

The trial also includes a significant research component that will provide information and strategies that can be used to improve future use of battery storage.

The outcomes of this project are:

- Validated information on the cost and reliability of distributed energy storage for network support
- A strategy for integrating increasing portions of solar and energy storage into the electricity network
- Information on the network support payments required for this solution to be applied to other parts of the network

Demand management processes

This work package aims to develop the internal systems required to use demand management to solve network constraints. The aim of this work is to:

- Use network support to resolve network issues
- Determine the internal costs for using demand management
- Investigate different levels of automation and type of network support

6.2. Explanatory material regarding demand management projects and programmes

TasNetworks notes the AER's advice that that the information provided below is intended to satisfy TasNetworks' annual reporting obligations for the purposes of paragraph 3.1.4.1 of the AER's *Demand management incentives scheme for the current regulatory control period*.

6.2(a)(i). Compliance with DMIS section 3.1.3 criteria

emPOWERing You Trial

The emPOWERing You Trial complies with the DMIA criteria detailed in section 3.1.3 of the demand management incentive scheme in that:

1. The purpose of this project is to both shift and reduce the demand for standard control services through a non-network alternative
2. This project is broad based and not targeted at a particular network user
3. This project is designed to build demand management capability in TasNetworks and provide a new potentially efficient demand management mechanism
4. This project is tariff based
5. The cost to TasNetworks cannot be recovered through any state or federal scheme. This project is not included in forecast capital or operating expenditure
6. This is operating expenditure. There will be no TasNetworks owned asset generated in this project

Bruny Island distributed energy storage trial

The Bruny Island Distributed Energy Storage trial complies with the DMIA criteria detailed in section 3.1.3 of the demand management incentive scheme in that:

1. The purpose of this project is to both shift and reduce the demand for standard control services through a non-network alternative
2. This project is broad based and not targeted at a particular network user
3. This project is designed to build demand management capability in TasNetworks and provide a new potentially efficient demand management mechanism
4. This project is not tariff based
5. The cost to TasNetworks cannot be recovered through any state or federal scheme. Although a contribution is sought from ARENA this cannot cover the entire cost. This project is not included in forecast capital or operating expenditure
6. This is operating expenditure. There will be no TasNetworks owned asset generated in this project

Demand management processes

The demand management processes work complies with the DMIA criteria detailed in section 3.1.3 of the demand management incentive scheme in that:

1. The purpose of this project is to both shift and reduce the demand for standard control services through a non-network alternative
2. This project is broad based and not targeted at a particular network user
3. This project is designed to build demand management capability in TasNetworks
4. This project is not tariff based
5. The cost to TasNetworks cannot be recovered through any state or federal scheme. This project is not included in forecast capital or operating expenditure
6. This is operating expenditure

6.2(a)(ii). Nature and scope of demand management projects

emPOWERing You Trial

The scope of this project is to:

- Gather data on customer usage patterns to improve models and planning using advanced metering technology; and
- Determine customer's response to new tariff designs and the effect it has on the load they place on the network.

Bruny Island distributed energy storage trial

The scope of this project is to:

- Determine the parameters for distributed energy storage as a solution to network issues
- Define the operating model for future applications of this sort of technology
- Determine what actions TasNetworks should take to ensure customers install technology in a way that may be used in the future to manage the network

Demand management processes

The scope of this project is to develop suitable tools and processes to manage demand management as a solution to network problems. This will include:

- Resourcing to dispatch the resources as required; and
- Tools to do the dispatching and gather data.

6.2(a)(iii). Project aims and expectations

emPOWERing You Trial

The outcomes of this project are better models of customer behaviour with and without new tariff designs.

Bruny Island distributed energy storage trial

The outcomes of this project are intended to be:

- A business case for future use of distributed energy storage for network issues
- A list of critical issues and factors to consider in future use of this type of solution

Demand management processes

The outcome of this project is appropriate tools and processes for managing demand management.

6.2(a)(iv). Project selection

emPOWERing You Trial

This project was selected because of the lack of data available on customer energy usage and the feedback we have received from customers that they need more information in order to support network tariff reform. This project will rectify this issue and test the effect of new tariff designs on network demand.

This was the only option which provided the required data.

Bruny Island distributed energy storage trial

Energy storage is predicted to increasingly be installed by customers to manage their own energy use. Energy storage is a promising method of rectifying network constraints at a much lower cost than traditional network solutions. If energy storage is to be used in this capacity however it is critical that TasNetworks understands the parameters of energy storage as a solution. The key outcomes of this trial are expected to be:

- Understand the future use case for distributed energy storage
- Determine what actions TasNetworks could take to enable a future where this form of support could be used

This project was selected after considering a network owned battery on Bruny Island. The distributed storage had greater promise because:

- The customers can receive benefit from their batteries when they are not required for network purposes
- Customers are already installing batteries themselves. With the appropriate conditions TasNetworks may simply be able to harness existing customer-installed batteries to resolve network issues

The trial is designed in two stages:

- An initial subsidy to create an area where there enough batteries to make a meaningful difference to the network

- Ongoing payments to customers as their batteries are used to manage the network

The ongoing payments are designed to be similar in design and magnitude to what would be economic to continue in the future.

Demand management processes

This project was selected after TasNetworks determined that it didn't have the appropriate internal tools and processes in place to use demand management. These resources will increasingly be used in the future to manage our network.

6.2(a)(v). Project implementation

emPOWERing You Trial

This project is being implemented internally.

Bruny Island distributed energy storage trial

This project is being implemented through an ARENA funded multi party project.

Demand management processes

This project is being implemented internally.

6.2(a)(vi). Implementation costs

emPOWERing You Trial actual spend

Expenditure profile	current reporting period
Actual spend	$1,576

Bruny Island Battery Trial actual spend

Expenditure profile	current reporting period
Actual spend (net of ARENA funding)	$41,764

Demand management processes

Expenditure profile	current reporting perod
Actual spend	

6.2(a)(vi). Identifiable benefits

emPOWERing You Trial

This project will assist TasNetworks in modelling customer behaviour and the effect of new tariff designs on network demand.

Bruny Island distributed energy storage trial

This project will provide TasNetworks with sufficient experience and information to determine which network issues may be resolved by distributed storage. The batteries are not currently installed and thus there is no data on their usage yet.

Demand management processes

This project will enable us to use demand management operationally to resolve network issues.

6.2(b)(i). Cost recovery under jurisdictional incentive schemes

6.2(b)(ii). Cost recovery under other Commonwealth or State Government schemes

6.2(b)(iii). Exclusion from approved capital and operating expenditure

The costs associated with the aforementioned DMIS/DMIA programmes are not:

- recoverable under any other jurisdictional incentive scheme;
- recoverable under any other Commonwealth/State Government Scheme; or
- included as part of the forecast capital expenditure or forecast operating expenditure included in the current Distribution Determination or any other incentive scheme applied by the current Distribution Determination.

6.2(c). DMIA spending in the current reporting period

The total expenditure in the Current Regulatory Period attributable to the Demand Management Innovation Allowance is $1,059,414.26. The expenditure is calculated from financial records from TasNetworks' accounting system.

6.3 Provide an overview of developments in relation to projects or programs completed in previous years of the regulatory control period, and any results to date

EmPOWERing You trial

This project:

- Has provided enough high quality customer consumption data to allow us to improve our planning processes
- Has provided network performance data to allow us to better identify problem areas in the network;
- Is providing metering data we can use to develop better tariffs and demand response products, and provide this information back to customers; and
- Is testing customer response to cost reflective demand tariffs.

This project is still in progress.

CONSORT Bruny Island Battery Trial

This project:

- Has shown that customer batteries can be aggregated to resolve network issues;
- Is demonstrating innovative new customer-focussed methods of managing network issues;
- Is developing relationships between TasNetworks, service providers, and customers which can be used to provide lower cost solutions to network problems in the future; and
- Is collecting data which we then assign to quantify the impact of customer batteries on the network in a winter-peaking region.

This project is still in progress.

Demand Management Processes

This project:

- Has developed processes that allow us to operationally manage network support; and
- Has created basic tools that allow us to manage services from DER.

This project is complete.

Demonstration energy storage system

This project:

- Has installed an energy storage system with the appropriate interfaces to demonstrate network support; and
- Has validated the network support model now in use on Bruny Island.

This project is complete.