Distribution Annual Reporting RIN, 2015-16

Basis of preparation

NEM levy payments

These costs are as per *Template 6a Operating Costs* in the Annual Reporting RIN.

NEM and retail contestability operating costs

These costs are sourced directly from *Template 6a Operating Costs* in the Annual Reporting RIN.

Movements in provisions

The value included is for the movement in provisions for standard control services.

Capitalisation policy changes

There were no changes to TasNetworks' Capitalisation Policy in the current reporting period. Therefore, Table 2 (Explanation of Capitalisation Policy Changes) has not been populated.

10. Jurisdictional scheme payments

TasNetworks currently has no jurisdictional schemes and therefore has not made any payments. This has been noted in the template and no values have been reported.

11. Demand management incentive scheme

Table 1 DMIA expenditure in the regulatory reporting year
Table 2 DMIA expenditure in the previous reporting year

(a) Compliance with the requirements of the RIN

The information provided about the Demand Management Incentive Scheme (DMIS) in Table 11.1 (DMIA expenditure in the regulatory reporting year) and Table 11.2 (DMIA expenditure in the previous reporting year) is consistent with the requirements of the Annual Reporting RIN, in that:

- all relevant input cells in the template have been populated
- the data has been gathered from reliable and objective data sources which are used in the normal course of TasNetworks' business
- only those projects classified as Demand Management have been utilised within this report

(b) Information sources

The data used to populate Tables 11.1 and 11.2 were sourced from TasNetworks' financial systems.

(c) Methodology and assumptions

Raw data was sourced from TasNetworks' financial systems for the relevant period. All projects with the demand management identifier (work category DMIAL (Demand management incentive allowance)) were extracted from the financial ledger.

No capital expenditure was allocated to DMIS for the previous or current reporting periods.

7. Demand Management Incentive Allowance

7.1 Current DMIA Projects

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 tariff 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
    - Trial to 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 will also include a significant research component that will provide information and strategies that can be used to improve future use of battery storage.

The outcome of this project is intended to be:

- 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

Demonstration energy storage system

This project aims to trial the network interface and control of a distributed energy storage system.

It involves installing a residential scale energy storage device on a TasNetworks facility (with a solar system) and trialling dispatch on a device that TasNetworks owns.

Demand management processes

This work package aims to develop he 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

7.2 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*.

The Bruny Island distributed energy storage trial and the tariff trial incurred costs in this reporting period

7.2(a)(i) Compliance with DMIS section 3.1.3 criteria

Tariff Trial

The Tariff 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. 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

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:

7. The purpose of this project is to both shift and reduce the demand for standard control services through a non-network alternative
8. This project is broad based and not targeted at a particular network user
9. This project is designed to build demand management capability in TasNetworks and provide a new potentially efficient demand management mechanism
10. This project is not tariff based
11. 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
12. This is operating expenditure. There will be no TasNetworks owned asset generated in this project

Demonstration energy storage system

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:

13. The purpose of this project is to both shift and reduce the demand for standard control services through a non-network alternative
14. This project is broad based and not targeted at a particular network user
15. This project is designed to build demand management capability in TasNetworks and provide a new potentially efficient demand management mechanism
16. This project is not tariff based
17. The cost to TasNetworks cannot be recovered through any state or federal scheme. This project is not included in forecast capital or operating expenditure
18. This is operating expenditure

7.2(a)(ii) Nature and scope of demand management projects

Tariff Trial

The scope of this project is to:

- Gather data on customer usage patterns to improve models and planning
- 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

Demonstration energy storage system

The scope of this project is to install an energy storage system that may be used to demonstrate the TasNetworks-Reposit interface. Without customer interactions the risk of adverse impacts are lower when installed in a TasNetworks facility.

7.2(a)(iii) Project aims and expectations

Tariff 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 sort of solution

Demonstration energy storage system

The outcome of this project is a demonstration of the TasNetworks/Reposit interface.

7.2(a)(iv) Project selection

Tariff Trial

This project was selected because of the lack of data available on customer energy usage. 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.

Demonstration energy storage system

This project was selected because as a low risk way of trialling the TasNetworks/Reposit interface.

7.2(a)(v) Project implementation

Tariff 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.

Demonstration energy storage system

This project is being implemented internally.

7.2(a)(vi) Implementation costs

Tariff Trial

The cost in the last financial; year for this is shown in the following table:

Tariff Trial actual spend

Expenditure profile	current reporting period
Actual spend	$129,000

Bruny Island distributed energy storage trial

The cost in the last financial; year for this is shown in the following table:

Bruny Island Battery Trial actual spend

Expenditure profile	current reporting period
Actual spend	$69,000

Demonstration energy storage system

Expenditure profile	current reporting period
Actual spend	$39,000

7.2(a)(vi) Identifiable benefits

Tariff Trial

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

Demonstration energy storage system

This trial will assist TasNetworks in operating distributed network storage better. It will build comfort for the control room operators for how energy storage acts in various situations.

7.2(b)(i) Cost recovery under jurisdictional incentive schemes

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

7.2(b)(iii) Exclusion from approved capital and operating expenditure

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

(i) recoverable under any other jurisdictional incentive scheme;

(ii) recoverable under any other Commonwealth/State Government Scheme; or

(iii) 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.

7.2(c) DMIA spending in the current reporting period

The total expenditure in the Current Regulatory Period attributable to the Demand Management Innovation Allowance is $237,000.

Budgeted expenditure (excluding GST)	$443,251
Actual costs incurred for 2012-13	$26,056
Actual costs incurred for 2013-14	$9,717
Actual costs incurred for 2014-15	$90,952
Project costs invoiced in 2015-16	$237,000
Final total project costs	**$363,725**