

TasNetworks 2022-23 DMIAM and DMIS Report

1. Demand management incentive scheme compliance report

1.1. Introduction

This section has been prepared to satisfy the requirement for TasNetworks to submit a Demand Management Incentive Scheme (DMIS). Compliance Report to the Australian Energy Regulator (AER) in accordance with Section 2.4 of the AER's Demand Management Incentive Scheme for electricity distribution network service providers 2017. TasNetworks, as part of the AER's "TasNetworks Transmission and Distribution Determination, 2019 to 2024" has accepted the new changes proposed for DMIS.

The DMIS objective is to provide distributors with an incentive to undertake efficient expenditure on relevant non-network options relating to demand management (the scheme objective).

The annual report must include two parts—Part A and Part B. Part A includes information on **committed projects** and Part B contains information on projects that TasNetworks has identified as **eligible projects**.

TasNetworks is required to report on:

- For each **committed project**:
 - a. The volume of demand management delivered,
 - b. An estimate of the realised benefits, and
 - c. The total incentive to be claimed.
- For each **eligible project** identified as a preferred option:
 - a. The present value of costs and benefits,
 - b. A description of responses to the **request for demand management solutions**
 - i. Description of proposal,
 - ii. Proposed costs and deliverables,
 - iii. For a potential credible solution, an estimate of the project's net benefit.
 - c. If the project is to proceed as a committed project, whether the project will occur via a demand management contract or via a demand management proposal.
 - d. The expected costs of delivering the demand management solution.
 - e. The kVA per year of network demand able to be called upon, influenced, dispatched or controlled.
- Any projects where a decision has been made to defer or not proceed with an eligible project that previously (either in 2021-22 or in previous years) was to proceed as a committed project, and

- Any projects where a decision has been made to proceed with a network option to meet an identified need that previously was to proceed as a committed project.

This submission lists all DMIS projects undertaken by TasNetworks during the 2022 – 2023 financial year.

1.2 Reporting

1.2.1 DMIS Projects in 2021-2022

There were zero (0) committed demand management projects and zero (0) eligible demand management project under development in 2022-23.

1.2.2 Compliance with DMIS

This report has been written in accordance with Section 2.4 of the AER Demand Management Incentive Scheme (December 2017).

1.2.3 Demand management project selection criteria

To determine the validity of a project for DMIS use a NPV based assessment is used to determine whether a demand management solution can reduce demand and/or defer network investment as part of its network planning processes. This allows all relevant costs and benefits for both preferred network solutions as well as various demand management deferral options to be quantitatively assessed.

For the network options these costs and benefits include:

- The expected capital costs of the preferred network option;
- The expected benefits of implementing the preferred network solution which include associated costs with:
 - o Avoided supply interruptions to customers (unserved energy);
 - o Avoided maintenance of aged network assets;
 - o Avoided environmental impact; and
 - o Avoided safety risk.

For the various demand management deferral options these cost and benefits include:

- The time-value-of-money benefit associated with deferring the network option;
- The avoided unserved energy for a given quantum of demand reductions;
- The expected costs of delivering demand reductions; and
- An options value benefit.

Based on the NPV assessment, a demand management project is considered feasible if the expected available budget exceeds the expected cost of delivering the demand management project.

1.3 PART A – Committed projects

There were zero (0) committed demand management projects in the 2022 – 2023 financial year.

1.4 PART B – Eligible projects

There were no committed demand management projects in the 2022 – 2023 financial year.

1.5 Demand Management Projects that have changed

There were no changed demand management projects in the 2022-23 financial year.

2. Demand management innovation allowance mechanism

This submission has been prepared under the Demand Management Innovation Allowance (DMIA) scheme applied to TasNetworks by the Australian Energy Regulator (AER).

Under Section 2.3 of the AER's final determination for The Demand Management Innovation Allowance Mechanism, Dec 2017, TasNetworks is required to submit an annual report on expenditure under the DMIA for each regulatory year.

The annual report must include:

1. the amount of the allowance spent by the distributor;
2. a list and description of each eligible project on which the allowance was spent;
3. a summary of how and why each eligible project complies with the project criteria;
4. For each eligible project on which the allowance was spent, and in a form that is capable of being published separately for each individual eligible project, a project specific report that identifies and describes:
 - a. The nature and scope of the eligible project;
 - b. The aims and expectations of the eligible project;
 - c. How and why the eligible project complies with the project criteria;
 - d. The distributor's implementation approach for the eligible project;
 - e. The distributor's outcome measurement and evaluation approach for the eligible project;

- f. The costs of the eligible project:
 - i. incurred by the distributor to date as at the end of that regulatory year;
 - ii. incurred by the distributor in that regulatory year; and
 - iii. expected to be incurred by the distributor in total over the duration of the eligible project.
 - g. For ongoing eligible projects:
 - i. a summary of project activity to date;
 - ii. an update of any material changes to the project in that regulatory year; and
 - iii. reporting of collected results (where available).
 - h. for eligible projects completed in that regulatory year:
 - i. reporting of the quantitative results of the project;
 - ii. an analysis of the results; and
 - iii. a description of how the results of the eligible project will inform future demand management projects, including any lessons learnt about what demand management projects or techniques (either generally or in specific circumstances) are unlikely to form technically or economically viable non-network options.
 - iv. any other information required to enable an informed reader to understand, evaluate, and potentially reproduce the demand management approach of the eligible project.
5. Where an eligible project has extended across more than one regulatory year of the regulatory control period, details of the actual expenditure on each such project or program in each regulatory year of the regulatory control period to date.
 6. A statutory declaration signed by an officer of the distributor delegated by the chief executive officer of the distributor, certifying that the costs being claimed for each demand management project:
 - a. are not recoverable under any other jurisdictional incentive scheme;
 - b. are not be recoverable under any state or Australian Government scheme; and
 - c. are not otherwise included in forecast capital expenditure or operating expenditure approved in the AER's distribution determination for the regulatory control period under which the mechanism applies, or under any other incentive scheme in that distribution determination.
 7. Each of the projects in the DMIA submission is defined as an 'eligible project' based upon the following criteria listed under Section 2.2.1. of the AER's final determination for The Demand Management Incentive Scheme, Dec 2017.
 8. An eligible project must:
 9. be a project or program for researching, developing or implementing demand management capability or capacity; and
 10. be innovative, in that the project or program:
 - a. is based on new or original concepts; or

- b. involves technology or techniques that differ from those previously implemented or used in the relevant market; or
 - c. is focused on customers in a market segment that significantly differs, from those previously targeted by implementations of the relevant technology, in relevant geographic or demographic characteristics that are likely to affect demand; and
11. have the potential, if proved viable, to reduce long term network costs

Accordingly, this submission details DMIA projects undertaken by TasNetworks in the 2022/23 financial year.

2.1 Governance

2.1.1 DMIA spending in 2022-23

There were one (1) new projects and one (1) ongoing DMIA projects under implementation or development for which TasNetworks incurred costs in 2022-23.

TasNetworks submission identifies claimable costs incurred **totalling \$482,345**.

2.1.2 Compliance with DMIA Criteria

Information addressing items Section 2.3 of the AER's final determination for [The Demand Management Innovations Allowance Mechanism, Dec 2017](#), can be found in the sections below.

2.1.3 Project selection process

When opportunities are identified for new projects, TasNetworks uses the following methodology when assessing projects for funding under the DMIA allowance:

Concept Stage: For new concepts, approval for project research and development is carried out by the Future Networks Team Leader, Future Networks who ensures that the proposed project meets the funding criteria specified under the DMIA Scheme. This component of the project is defined as a Conceptual Project.

Development Stage: Where early stage research and development indicates a potential viable demand reduction solution, the project is approved to proceed to the Development Stage where a project proposal for a full trial is prepared. Approval to proceed to Developmental Stage is by the Future Networks Team Leader, Future Networks.

Delivery Stage: The project proposal is reviewed by the Future Networks Team Leader, Future Networks to ensure it meets the funding criteria specified under the DMIA Scheme and checks are also made to ensure that budget projects costs are within the DMIA allowance. After consideration of the available DMIA budget, proposed projects will be selected for inclusion in the DMIA program and recommended for authorisation at the appropriate delegation level.

2.2 Statement on costs

In submitting this program for inclusion in the DMIA Scheme, TasNetworks confirms that the program costs:

- are not recoverable under any other jurisdictional incentive scheme;
- are not be recoverable under any state or Australian Government scheme; and
- are not otherwise included in forecast capital expenditure or operating expenditure approved in the AER's distribution determination for the regulatory control period under which the mechanism applies, or under any other incentive scheme in that distribution determination.

2.3 DMIA project summary

Table DMIA Project Summary

Projects	2022-23 Actual costs (exc GST)	Year Initiated
New Projects (initiated 21/22)		
DSO Community Battery	\$76,772	2022
New Project Sub-Total	\$76,772	
Existing Projects (expenditure in 2021/22 and initiated prior)		
Derwent Bridge microgrid feasibility study	\$405,573	2021
Existing Project Sub-Total	\$405,573	
TOTAL	\$482,345	

2.4 New projects

2.4.1 DSO Community Battery

The Community Energy project involves the installation of grid scale batteries in different regions across Tasmania. The batteries will be procured in an open tender and operated in the energy markets and for network support. Including for managing substation peak demand. The project will inform TasNetworks' approach to future distribution system management.

Project nature and scope

The scope of this project is to:

- Procurement and installation of two low voltage grid scale batteries for installation in the TasNetworks distribution network;
- engagement with local community groups and councils in affected areas;
- development of ideal battery operating framework and contract arrangements with battery operator; and
- verification of project hypotheses.

Project aims and expectations

The aims of the community energy project are broad, but can be summarised with four major hypotheses, these are:

- operation of the community battery is successful in creating additional solar hosting capacity in the substation low voltage network;
- operation of the community battery is successful in reducing the substation peak demand;
- there is net revenue generated by the battery in participating in the wholesale energy market;
- there is net revenue generated by the battery in participating in FCAS service.

The verification of these hypotheses will inform TasNetworks' approach to future distribution system management.

How and Why Project Complies with Project Criteria

The community energy project will test how network batteries can manage substation peak demand, eliminating the need for upgrades of the network infrastructure. Additionally, the project will help TasNetworks to quantify the demand management benefits that network batteries can provide, which will inform how TasNetworks engages with demand management providers who operate network batteries.

If proven viable, this project will successfully prove that grid scale batteries can be used to reduce substation peak demand and defer costly upgrades required for load growth, reducing total network expenditure and reducing TasNetworks' costs. Similarly, the project will also test the viability of large scale LV batteries in creating additional solar hosting capacity, which would have otherwise been enabled with costly network upgrades, reducing total network expenditure.

Implementation approach

The approach to deliver this project is,

- Open tender for the supply of the Battery Energy Storage System(s) (BESS)
- Open tender for a community battery market services operator
- Site and connection design internally resourced
- Installation and maintenance Internally resourced

In addition TasNetworks will deliver community engagement and learnings.

Results

The project will be measured by testing against the project hypotheses, as well as reviewing the financial benefit that the batteries provide.

Specifically,

- operation of the community battery is successful in creating additional solar hosting capacity in the substation low voltage network;
- operation of the community battery is successful in reducing the substation peak demand;
- there is net revenue generated by the battery in participating in the wholesale energy market;
- there is net revenue generated by the battery in participating in FCAS service.

Implementation costs of the project

TasNetworks has obtained funding through a grant agreement under the 'Community Batteries for Household Solar Program – Delivery of Election Commitments Stream 1' from the Department of Climate Change, Energy, the Environment and Water (DCCEEW). DMIA funding will not be sought for the activities in this project that are funded by the grant agreement.

The costs of the eligible project incurred by the distributor to date as at the end of that regulatory year and incurred by the distributor in that regulatory year is as follows:

Budget item	2022-23 Actual	Total Actual
Project management, engagement and research	\$76,772	\$76,772
Cash contribution	\$0	\$0
Total (excl GST)	\$76,772	\$76,772

The costs of the eligible project expected to be incurred by the distributor in total over the duration of the eligible project is as follows:

Annual budget	Yr 1 22/23 (\$M)	Yr 2 23/24 (\$M)	Total (\$M)
TasNetworks contribution	0.077	0.22	0.297
Total	0.077	0.22	0.297

Project Progress & identifiable benefits

Key deliverables	Start date	End date
Stage 1 – Design and Procurement	1/07/2023	31/12/2023
Stage 2 – Factory Testing, Site Preparation and Battery Installation	1/1/2024	30/06/2024
Stage 3 – Battery Commissioning and Operational Tests	01/07/2024	31/10/2024
Stage 4 – Performance Monitoring, Data Collection, Evaluation and Reporting	01/11/2024	30/03/2025

2.5 Existing projects

2.5.1 Derwent Bridge microgrid feasibility study

Reliability improvements and modernisation of electrical networks have predominantly been in urban networks, with many rural networks facing poor reliability and with few options for improvement. The Tasmanian central highlands, with its particularly harsh winter, this issue is compounded – often customers resort to regularly using backup diesel generators. Derwent Bridge is a community in the central highlands with a small populations of permanent residential and commercial customers, as well as a permanent Parks and Wildlife Service presence and growing accommodation for tourism at Lake St Clair.

Derwent Bridge is supplied by a 16.3 km long 110 kV line emanating from the Butlers Gorge switching station and experiences poor reliability, particularly in winter when outages can be long due to maintenance and repair difficulties. The transmission line was originally constructed for hydro generation facilities at Lake St Clair, which have since been decommissioned. Now the 110 kV line is considered oversized and more expensive to maintain than a standard MV line. If replaced, an alternative option should be considered.

The purpose of this project is to develop a study to investigate the feasibility of a microgrid solution at Derwent Bridge as an alternative to the existing 110 kV transmission connection. Options to explore

include demand management, mini pumped hydro, battery energy storage, hydrogen generation, thermal storage, or a combination.

Project nature and scope

This project is focused on the development of a feasibility study into a Microgrid solution to address future power needs of all Derwent Bridge customers (residential and business) connected to the current 16.3 km long 110 kV line emanating from the Butlers Gorge switching station. The project will involve the installation of monitoring equipment, solar PV, and BESS at customer facilities. The solar PV and BESS will be handed over to the customers at the end of the project. This equipment will both assist in the evolving energy needs of the community, as well as provide valuable data for the feasibility study.

The project is a joint project between TasNetworks, the University of Technology Sydney (UTS) as research partner, Redback Technologies (Redback) as an innovative clean industry representative, and the Australian Power Institute (API).

Project aims and expectations

The aim of the Derwent Bridge Microgrid Feasibility Study is to bring together the Derwent Bridge Community, power utility (TasNetworks), the innovative clean energy industry (Redback Technologies), renowned knowledge sharing institute (API) and a leading research-intensive university (UTS) to understand, investigate and evaluate the suitability of a feasible and resilient power supply option for regional communities.

Specific project objectives are:

1. To undertake a study at Derwent Bridge to investigate the feasibility of a microgrid comprised of demand management, mini pumped hydro, battery energy storage, hydrogen generation, thermal storage, or a combination.
2. To provide measurable economic, social, environmental and technical outcomes from the study that will benefit the local community, aid TasNetworks in future investment infrastructure investment decisions at Derwent Bridge and are transferrable to wider Australian communities.

How and Why Project Complies with Project Criteria

The Derwent Bridge microgrid feasibility study project is both an innovative project and if proved viable, can reduce the long term network costs inherent in supplying the Derwent Bridge community. The innovative project is focussed on a community that differs from others targeted by TasNetworks for similar projects. This community being a very small rural community in the central highland climate region of the state that suffers reliability issues throughout the year.

The purpose is 'to support regional and remote communities to investigate whether replacing, upgrading or supplementing a microgrid or upgrading existing off-grid and fringe-of-grid supply with microgrid or related new energy technologies would be cost effective'. As well as model production on microgrid solutions, with the learnings from the feasibility study to be used for similar communities in the future.

The study may recommend the use of technology not used in Tasmania before like hydrogen generators for power supply. The microgrid concept is also focussed around alternative options for augmenting the ageing and costly 110 kV infrastructure supplying the town, thereby reducing long term network costs.

Implementation approach

Project delivery will occur in three phases, which are broadly aligned to the 2021/22, 2022/23 and 2023/24 with following milestones:

Milestone 1 Project Inception – this phase focuses on establishing a solid foundation for the project.

- The execution of partner contracts and agreements.
- The development of a detailed project plan in consultation with project partners that will include scope, deliverables, budget and schedule.
- The development of a project control register comprising issues, risk, decisions, dependency, assumptions and benefits registers.
- Finalise timing of key calendar bookings for on-site events such as pilot inception meetings and business model design workshops.
- Conduct one-on-one partner meetings to discuss more detailed aspects of the approach and project plan delivery with each of the partners.

Key Deliverable

- Finalised Project Plan (TasNetworks)

Sub Deliverables

- Partner Contracts/Agreements (TasNetworks)
- Project Governance Framework (TasNetworks)
- Project Plan and Related Artefacts – Budget, Project Control Register (TasNetworks)

Milestone 2 – Engagement report

This phase focuses on engaging with the community to better understand their needs, concerns, and expectations on energy supply which will facilitate the optimal co-design of the Microgrid.

- The use of an innovative engagement method based on the concept of community as a socio-ecological system which is motivated by technological intervention and sustainable use of existing resources.
- Consultation with key stakeholders to understand the requirements and constraints of off-grid microgrid design based on information from their industries which will assist to uncover the risks of this project.
- Community visioning workshops and surveys.

Key Deliverable

- Engagement Report (TasNetworks)

Sub Deliverables

- Community Stakeholder Engagement Plan (TasNetworks)
- Community Information Session/Visioning Workshop # 1 (TasNetworks)
- Community Information Session # 2 (TasNetworks)
- Survey for business and residents (TasNetworks/UTS)
- Webinar for API Bursary Students (API)

Milestone 3 – Literature Review

This phase will focus on a systematic review of relevant literature, standards and regulatory frameworks.

- Conducting a systematic literature review on the main microgrid layers, such as business, standard, climate, infrastructure or control, and operation.
- Review of international and Australian literature: including academic studies, grey literature, and industry sources.
- Review of current technology and scale of markets; international and Australian typical and best practice; and identify international and Australian leaders in microgrid technology and best practice.
- Investigating general benchmarks, frameworks and standards to identify the best practice of designing a resilient islanded microgrid.

Key Deliverable

- Report on literature review, lessons learned from previous studies and regulatory frameworks (UTS)

Sub Deliverables

- Capability Review of MG Projects Report (UTS)
- Islanded Showcase example of Standalone PV/Battery System (UTS)
- Report on most important impact factors for optimising design and operation of DERs in Microgrids (UTS)

Milestone 4 – Data framework

This phase will focus on installing monitoring devices and data collection.

- Deploying sufficient monitoring devices to build a sufficiently robust understanding of the load and power quality at various business and community organisation sites within Derwent Bridge, with a focus on high-value controllable loads.
- Identifying:
 - number of customer and types of connection;
 - the replacement or augmentation capital expenditure for the Derwent substation;
 - current costs of operating and maintaining the network; and
 - reliability and/or power quality issues, with particular focus on flow-on local economic and socioeconomic impacts.

Key Deliverable

- Preliminary report on monitoring device instalment and data collection (UTS)

Sub Deliverables

- Provide requested network and customer data (TasNetworks)
- Procure and install Luceo Smart Meters (TasNetworks)

- Data cleansing and analysis (UTS)
- Report on design and operation scenarios and related economic analysis (UTS)

Milestone 5 – Load modelling and MG design

This phase will focus on the outline of load characteristics and microgrid design options

Deliverables – Successful completion of the field trial as per the plan.

- Identifying load characteristics (for the town as a whole and then individually so as there is some view to if and how it can be shaped).
- Identifying conceptual design options of Derwent Bridge microgrid considering its (i) economic feasibility, (ii) cash flows over its lifetime, (iv) different technology options, and (v) technical (reliability and resiliency) feasibility.
- Developing a high-level microgrid design with input from local community members, TasNetworks, Luceo, UTS experts and other relevant industry partners considering different options, for example (i) energy efficiency and demand response, (ii) hybrid storage (battery, mini hydro) thermal), (iii) electric vehicles

Key Deliverable

- Preliminary report on load modelling and Microgrid design options (UTS)

Sub Deliverables

Report on load characteristics (UTS)

- Conceptual Design Options for Derwent Bridge MG (UTS)
- High-level MG design (UTS/Redback/Installer/TN)

Milestone 6 – Digital twin

This stage will focus on the identification of design objectives and specifications for MG digital twin tool.

- Finding out design objectives and specifications of a digital twin which will enable local businesses and communities to make informed decisions on the utilisation and adoption of off-grid microgrids.
- Redback Technologies will work with the expert from School of Computer Science and Data Engineering (UTS) to identify specifications for developing a decision Management platform that leverages artificial intelligence (AI) and predictive analytics.

Key Deliverable

- Report on design objectives and specifications of Microgrid digital twin (UTS)

Sub Deliverables

- Design Objectives (UTS)
- Specifications for decision management platform (UTS/Redback)

Milestone 7 – Capacity Building

As community satisfaction and trust are key factors for successful installation of microgrids, this phase will focus on developing community buy-in and support. This will be to assist in educating the community, sharing knowledge, reflections and finalise the policies and process in building a community micro grid.

Key Deliverable

- Report on local community survey and capacity building (TasNetworks)

Sub Deliverables

- Community workshops (TasNetworks)
- Report on customer trial and summarised survey results (UTS/TN)
- Provision of training to community (UTS/TN)

Milestone 8 - Business Model

The focus of this phase will be to develop a business model to minimise cost of the implementation of a microgrid. The primary objective of this model will be to minimise the cost of the microgrid system (e.g., project development, system design, commissioning, service, and support).

Key Deliverable

- Report on the development of tools and algorithms (UTS)

Sub Deliverables

- Develop deep learning-based adaptable mode (UTS)

Milestone 9- G tools

This phase will focus on developing and implementing tools and algorithms. It include Developing and implementing innovative tools and models to explore the feasibility of, and provide guidelines for, the development of islanded microgrids for rural and regional communities. It is expected that the develop tool could be used for several purposes, for example, planning, evaluation of deployment of microgrid, benefits of deployment, load forecasting considering demand response and energy efficiency, quantify resiliency and reliability benefits, progressive optimal use of new and existing infrastructure, identification of boundary parameters and management strategies.

Key Deliverable

- Report on the development and implementation of Microgrid digital twins (UTS)

Sub Deliverables

- Develop innovative tools and model to support development of islanded MGs for rural and regional communities (UTS)
- Implement innovative tools and models to support development of islanded MGs (UTS)

Milestone 10 - Digital twins

Digital twins for microgrids are emerging as a core enabler to implement and demonstrate cost-effective and resilient energy solution for regional communities due to the advancement in IOT, communication systems and industry 4.0. The platform can add value to business by integrating data for collaboration and decision making, and by developing innovative energy prediction and control

applications. This include utilising the real-time simulator at UTS TechLab, developing and implementing a digital twin that will combine a computational model and a real-world system through data and feedback in order to enhance operational efficiency, allow for resource optimisation, improve asset management, deliver cost savings, improve productivity and safety.

Key Deliverable

- Report on the development and implementation of the business model (UTS)

Sub Deliverables

- Develop Digital Twin using real-time UTS simulator (UTS)
- Implement Digital Twin developed using UTS simulator (UTS)

Milestone 11 - Recommendations

This phase focuses on what happens next and what recommendations there are for the Derwent Bridge Township.

- Providing the detail for the next steps of implementing the Derwent Bridge microgrid.
- Providing a reliable, integrated, and streamlined process that will guide the Microgrid developer and engineer through conceptual design, engineering, detailed electrical design, implementation, and operation in a standardized and data driven approach.
- Creating reliable results and financial indicators that can be replicated and repeated by investors and financiers.

Key Deliverable

- Report on the next steps of the proposed feasibility study and recommendations for Derwent Bridge town (TasNetworks)

Sub Deliverables

- Next steps for implementation of a full MG at Derwent Bridge (UTS/TN)
- Process to guide MG developers and engineers (UTS)
- Financial indicators for investors and financiers (UTS)

Milestone 12 – Final report

This phase focuses on generalising, presenting and publishing the model. Presenting, documenting and sharing the outcome of the project to relevant industries, researchers, communities, investors and students.

Key Deliverable

- Final Report (TasNetworks)

Sub Deliverables

- Document outcomes of the project for sharing to relevant industries, researchers, communities, investors and students (API/UTS/TN)
- Share project outcomes to relevant industries, researchers, communities, investors and students (API/UTS/TN)

- Closing Event (TasNetworks)

Results

Key updates from the project so far:

- Project Inception – Complete
- Engagement report – Complete
- Literature Review – Complete
- Data framework – In progress
- Load modelling and MG design – In Progress

Implementation costs of the project

TasNetworks will be obtaining funding through a grant agreement with the Commonwealth (as represented by the Department of Industry, Science, Energy and Resources) for the 'Regional and Remote Community Reliability Funds Microgrids'. DMIA funding will not be sought for the activities in this project that are funded by the grant agreement.

The costs of the eligible project incurred by the distributor to date as at the end of that regulatory year and incurred by the distributor in that regulatory year is as follows:

Budget item	2022-23 Actual	Total Actual
Project management, engagement and research	\$405,573	\$455,906
Cash contribution	\$0	\$60,000
Total (excl GST)	\$405,573	\$515,906

The costs of the eligible project expected to be incurred by the distributor in total over the duration of the eligible project is as follows:

Annual budget	Yr 1 21/22 (\$M)	Yr 2 22/23 (\$M)	Yr 3 23/24 (\$M)	Total (\$M)
TasNetworks in-kind contribution	0.05	0.406	0.05	0.415
TasNetworks cash contribution	0.06	0	0	0.06
Total	0.11	0.406	0.05	0.521

Project Progress & identifiable benefits

Key deliverables	Start date	End date
Finalised Project Plan	01/09/2021	30/12/2021
Community engagement summary report	01/10/2022	30/06/2022
Preliminary report on monitoring device instalment and data collection	01/10/2021	30/06/2022
Microgrid literature review	01/11/2021	30/08/2022
Preliminary report on load modelling and microgrid design options	15/01/2022	30/08/2022

Report on local community survey and capacity building	01/09/2022	30/06/2023
Report on the development and implementation of microgrid digital twins	01/09/2023	31/01/2024
Report on the next step of the proposed feasibility study and recommendation for Derwent Bridge	15/01/2024	31/05/2024
Final report and knowledge sharing	15/01/2024	30/05/2024