TasNetworks' Industry Engagement Strategy

Working with industry to address network needs using demand management and SAPS

30 August 2025

Official

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Version	Date	Autor initials
V 3.0	30/08/2025	KR

TasNetworks acknowledges the palawa (Tasmanian Aboriginal community) as the original owners and custodians of lutruwita (Tasmania). TasNetworks, acknowledges the palawa have maintained their spiritual and cultural connection to the land and water. We pay respect to Elders past and present and all Aboriginal and Torres Strait Islander peoples.

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1. Purpose

Assets on the Tasmanian electricity network are regularly subject to constraints and limitations, due to several causes, such as overall asset condition and peak electrical demand. These constraints and limitations create an *identified need* that TasNetworks is obligated to address. Traditional options to address identified needs, such as network augmentation and asset replacement, are called *network options*. However, alternatives to network options are also considered, such as demand management and Stand-Alone Power Systems (SAPS), these are called *non-network options* or *SAPS options* respectively.

The purpose of this Strategy is to outline how we will engage with our customers and industry, with respect to non-network and SAPS options, to address identified needs in the Tasmanian electricity network. Our objective is to work with our customers to identify the most cost effective credible non-network or SAPS option which will allow us to either defer or avoid the need for network investment and reduce the long-term costs of the network.

We offer financial incentives to those who can provide solutions, subject to our network having an identified need and a formal agreement with the customer or provider.

This document supersedes our *Demand Management Engagement Strategy* and supports our regulatory obligations under the National Electricity Rules (NER) clause 5.13.1(e).

2. Demand Management

When electrical appliances are turned on, they create electrical demand. When multiple electrical appliances are turned on at the same time, the total demand increases. For any electrical system, there is a period where the largest number of electrical appliances are turned on at the same time. The combined demands of all those electrical appliances creates a peak in electrical demand, which is referred to as peak demand.

In Tasmania this peak occurs on weekday mornings and evenings, corresponding to the times when people are getting ready for, or coming home from, work or school.

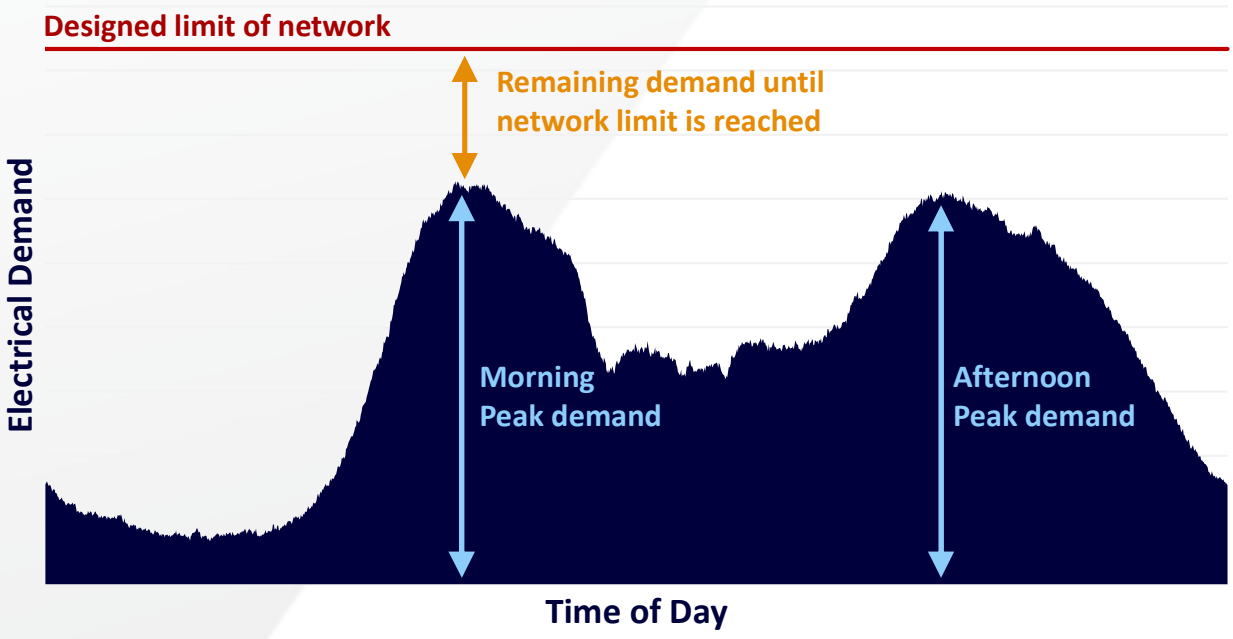


Figure 1. Example localised daily load profile of a typical winters day

Overall, peak electricity demand events in Tasmania usually occur during the winter months, due primarily to the electrical heating load. However, in localised areas of the network the peak demand may be shifting to summer due to the prevalence of air conditioners and farming irrigation. Tourist regions of the state may also experience peaks over holiday periods, which occur throughout the year. The diagram below shows what the demand over a normal winter's day might look like, the peaks are created by many appliances being run at the same time.

The network – the poles and wires – are built to cater for the peaks in electrical demand. If networks assets are unable to cope with peak demand, they will become overloaded and begin to malfunction. This can lead to local voltages dropping and stopping some electrical appliances from working. In extreme circumstances power lines can melt and fall to the ground.

TasNetworks must maintain a safe and reliable supply of electricity to our customers. Therefore, it is crucially important that we are aware of load growth in the network and investigate options to ensure that the capacity of the network is not reached due to high electricity usage. This can be achieved by either:

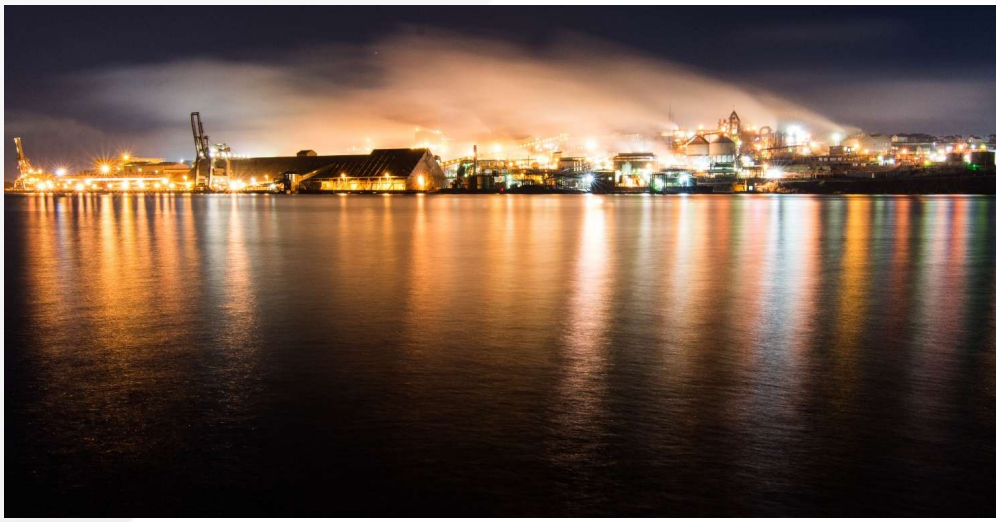
- increasing the network capacity; or
- taking steps to reduce present and forecasted peak electricity demand.

The act of reducing peak electrical demand is referred to as *demand management* and may be a more cost-effective solution than increasing the network capacity.

2.1 Types of demand management solutions

Demand management solutions are considered non-network solutions, because they are solutions that do not require an upgrade of the electricity network. The most common non-network solutions are:

- shedding non-critical loads or load-shifting by rescheduling the use of electricity
- change loads from electricity to another fuel source (e.g. gas)
- reducing the electricity consumed by appliances for short periods (e.g. hot water load control)
- operating generators within a customer's electrical installation, and
- battery storage, using some of the battery capacity to address peak demand issues (e.g. residential batteries).



3. Stand-Alone Power Systems (SAPS)

Every TasNetworks customer is physically connected to our network through a series of poles, wires, cables, and numerous other types of electrical assets. We regularly inspect and maintain all these electrical assets to ensure that customers are provided a safe and reliable supply of electricity, these activities include, but are not limited to:

- regular asset inspection regimes
- pole replacement and strengthening
- line conditioning and re-stringing
- transformer maintenance and switchgear replacement
- fuse replacements
- vegetation clearing, and
- emergency replacement of failed equipment.

The ongoing costs required to carry out these activities contribute to the network charges on our customers' power bills.

Our network serves a broad range of customers over a diverse geographic region, encompassing the entire island of Tasmania. Some of the remote regions we service require long runs of poles and wires, and may just supply single customer, or small group of customers. These poles and wires may also traverse difficult to access terrain, and through high bushfire prone areas, making the inspection and maintenance regimes stricter and more expensive.

Recent cost reductions in off-grid technology have allowed us to investigate an alternative to inspecting and maintaining certain long runs of poles and wires. In some cases, the ongoing cost required to keep these lines operational may be higher than the cost involved in constructing and operating an off-grid system. These off-grid systems are called Stand Alone Powers Systems (SAPS). SAPS may consist of a mix of technologies, including, but not limited to:

- solar panels
- battery storage systems
- diesel generators
- hydrogen, or
- mini-hydro generators.

If the cost to construct and maintain a SAPS is assessed to be less than the cost to keep long runs of lines operational, then a SAPS option may be considered. Making electricity cheaper for all customers, and in some cases reducing bushfire risk.

4. Innovations

In recent years we have seen significant changes in the electricity network. Not only is the technology that we use to solve network issues changing, but use of the network itself is changing. External influences, such as new forms of embedded generation has accelerated this change. Innovative solutions are being investigated to address network solutions. Examples of notable and innovative trials are provided below.

4.1 Derwent Bridge Microgrid Feasibility Study

Derwent Bridge is in the remote wilderness environment of Tasmania's Central Highland. Derwent Bridge has only 10-15 permanent residents with many seasonal tourists either staying at the township or passing through each year.

The electricity supply to the Derwent Bridge community is maintained by a single 110kV powerline. This powerline, which is 16.3km long, was commissioned in 1939 making it approximately 80 years old. The existing powerline, while still in good condition for its age, will likely need to be replaced in the next 10 to 20 years. For this reason, a feasibility study was conducted to assess the viability of installing a microgrid at Derwent Bridge.

In 2021, the Australian Government provided a grant to TasNetworks for the Derwent Bridge Microgrid Feasibility Study through the 'Regional and Remote Community Reliability Funds Microgrids'. As part of this study, solar panels and battery storage solutions, along with a range of other devices were installed on selected premises across the community to understand energy use and behaviour. This information was utilised to support the microgrid feasibility investigation and to assist with developing tools and approaches to help design typical microgrids in remote communities. The Derwent Bridge Microgrid Trial concluded in 2024. This project has provided valuable insights into the future of microgrids in Tasmania and provides learnings and tools that will be useful to assist with development of future systems to meet community needs. At this stage a microgrid at Derwent Bridge was not found to be feasible based on current technology and other parameters and will be reassessed in the future when energy generation and storage solutions advance.

For further information on the project outcomes and findings, please visit: Derwent Bridge Microgrid Project - TasNetworks.

4.2 Community Battery Trials

Community batteries are a promising solution to enable the storage of distributed renewable energy for later use, reduce distribution network constraints, and put downward pressure on electricity prices.

TasNetworks have recently commissioned two community batteries in in Shorewell Park, Burnie and Glebe Hill, Howrah Tasmania after successfully receiving grant funding through the Department of Climate Change, Energy, the Environment and Water (DCCEEW) Community Batteries for Household Solar program Stream 1.

The October 2022 Federal Budget provided $171 million for the Australian Renewable Energy Agency (ARENA) to deliver the Community Batteries for Household Solar Budget Measure to deploy 342 community batteries across Australia. TasNetworks received funding to deploy a further six front-of-the-meter community batteries in the Tasmanian distribution network, ranging in size from 150kW to 250kW.

It is expected that the inclusion of the community batteries on the distribution network will improve solar hosting capacity, provide peak demand management, and generate both network and non-network benefit by participating in the energy market.

For further information on Community Batteries please visit: Community batteries | Talk With TasNetworks

4.3 EV Grid trial

Electric Vehicles (EVs) are a rapidly developing technology, and our electrical network will be challenged as the uptake increases. However, they may also provide many opportunities, such as increased energy security and demand management.

The EV Grid Trial was a collaborative project, partly funded by ARENA, with four other participating distribution network service providers from Victoria and the ACT. The trial recruited 176 residential customers to demonstrate the capability of smart charging technology. Using real-time network capacity information, we can better prepare to manage the potential impacts from a high uptake of EVs on our electricity system.

The EV Grid Trial had the objective of understanding:

- how to manage EV charging in real-time following network conditions
- available spare capacity in the low voltage network
- how to appropriately integrate EVs without excessive network infrastructure upgrades, and
- new technology and customer behaviour.

The EV Grid Trial concluded in 2023. The trial demonstrated that managed charging—via internet-connected smart chargers and real-time signals—can effectively reshape EV charging behaviour to reduce peak demand, soak up excess solar generation, and alleviate the need for costly network upgrades. Behaviourally, 74% of participants preferred managed charging over traditional 'convenience' charging, 76% expressed intent to purchase smart chargers, and 97% indicated willingness to participate in future trials. The final project report also offers technical and operational insights, including

enhancements in near-real-time monitoring, the effectiveness of demand-response and solar-soak events, and the foundations for future forecasting and integration of EV loads into grid planning.

Further information on the project can be found on the project website at: Jemena EV Grid Trial.

5. Embedded Generators

Generators connected to the distribution network that supply energy to local residences or businesses are referred to as embedded generators. The supply of electricity from embedded generating units can sometimes offer a cost-effective solution to a network need.

Embedded generators can in some cases receive payments for avoided customer Transmission Use of System (TUoS) charges as network support. These are determined in accordance with NER rule 5.3AA(h). Further information can be found in Appendix F.

Further information for customers who wish to offer generation services, including our technical requirements and details on connections agreements, can be found on our website at: TasNetworks Embedded Generation.

6. Industry Engagement Register

TasNetworks Industry Engagement Register is open to all stakeholders including providers, residential, commercial, agricultural and industrial customers. Registered stakeholders will receive information about our demand management or SAPS opportunities we identify in our Annual Planning Report and any relevant publication of an options screening report, draft and final project reports.

Our customers and providers can receive information by signing up to our online register on our website at: TasNetworks Industry Engagement Register.

7. Solution Assessment Process

Our objective is to work with our customers to identify cost-effective non-network and SAPS solutions which allow us to defer or avoid the need for network investment and reduce the long-term costs of our network.

Potentially credible non-network and SAPS options are considered during the planning cycle. For example, during our annual forecasts we may identify a network limitation due to increasing load growth, ageing assets, or extreme weather risk. This limitation will create an identified need, and we will explore network, non-network, and SAPS options to address the problem. Each opportunity is unique and is dependent on several factors, such as:

- network constraint or limitation
- the timeframe required for delivery of a solution, and
- external factors such as local climate and site access.

An early analysis of possible solutions is done at a high level which may include desktop studies, site visits and discussions with our customers and providers. The evaluation of non-network and SAPS projects involves analysis of the costs, benefits and risks associated with each option.

7.1 First Stage: Investigation

The first stage of the assessment process is to investigate the network issue and determine whether non-network or SAPS options can address the network need. The investigation reviews the following:

- network planning criteria
- why is the network project required
- timing requirements for the new solution
- duration and time of occurrence of peak demand
- load growth and remoteness for the affected area
- local climate including bushfire risk and solar irradiance, and
- site access.

Economic analysis is then carried out which estimates the savings derived by deferring or avoiding the need for a network upgrade project. Further information on our future network issues can be found in our Annual Planning Report, accessible on our website at: TasNetworks Annual Planning Report.

7.2 Second Stage: Development

Once a non-network or SAPS option is identified as technically feasible, it will be compared against network options and evaluated for cost, risk and potential benefits.

During this stage, if a non-network or SAPS option is subject to the regulatory investment test, we will publish an *options screening report* (for distribution projects) or *project specification consultation report* (for transmission projects) in a timely manner.

We will notify stakeholders registered on our Industry Engagement Register upon the publication of the reports. The information provided in these reports will allow for a more detailed assessment of the non-network or SAPS option and will assist stakeholders to identify the scope for, and develop, alternative potential credible options or variants to the potential credible options.

7.3 Third Stage: Assessment

We will request proposals from customers and providers to address the identified issue and will assess proposals using the detailed information provided by the reports developed in the second stage, and the following criteria:

- amount of load reduction that can be provided, and whether it is effective over the entire peak period, factoring in forecasts for future load growth
- implementation issues (e.g. planning permits)
- risks and assumptions in estimating the amount of demand management or size of a SAPS solution
- description of the technology including opportunities to provide real-time monitoring and control to TasNetworks, and
- calculation of costs and benefits.

Potentially credible options are evaluated against conventional project implementation criteria and costs and benefits; further assessment information is shown in Appendix E.

7.4 Final Stage: reporting

All written enquiries and proposals will receive a written response from TasNetworks. During the assessment of proposals, interested parties will be advised of the status of their assessment at regular intervals.

TasNetworks is required by the NER to publish the initial results from its assessment of distribution non-network or SAPS projects in a *Draft Project Assessment Report*. The report will evaluate all credible network, non-network and SAPS options, consider their costs and propose an option that maximises the economic benefit to customers.

The report will be published on our website and allows our customers and providers to view our assessment and provide feedback. We will also notify stakeholders registered on our Industry Engagement Register upon the publication of the report. We will consider feedback on the draft report and then publish a final report that demonstrates a preferred solution and the reasons for its selection.

8. Customer and Provider Engagement and Consultation

This section describes how we will engage with, consult with, and negotiate payments to customers or providers of non-network and SAPS solutions.

8.1 Engaging with our Customers and Providers

Our customers and providers can find information regarding potential non-network and SAPS opportunities from the TasNetworks' annual planning report (refer to Appendix A.6.) and the options screening report (refer to Appendix B).

8.2 Consulting with our Customers and Providers

As network issues are identified, plans may be developed in liaison with key stakeholders and local communities in accordance with TasNetworks Customer Engagement Framework v1 (Appendix G).

The consultation ordinarily occurs with customers located in the affected network area to determine any potential non-network or SAPS options. If there is no obvious solution identified, then consultation with broader community about opportunities as well as considering stakeholders nationally and abroad may occur.

For projects that are subject to the Regulatory Investment test for Distribution (RIT-D) the network, non-network, and SAPS options will be considered in accordance with NER clause 5.17.4. If a non-network or SAPS option is found that can provide or contribute to a credible solution, then we will develop an options screening report that commences the consultation process, as outlined in Appendix B. Customers and providers interested in providing a submission can refer to Appendix C for more information or contact our Network Planning team via: networkplanning@tasnetworks.com.au.

8.3 Payment for Solutions

Network support payments are made to customers or providers for modifying their energy usage or supplying energy into the network using a generator or other energy source (e.g. battery) during peak periods.

We offer financial incentives to those who can provide solutions. Network support payments are available to our customers, or a third party contracted by us to provide network support services. This is subject to our network having an identified need and a formal agreement with the customer or provider.

Appendix A: Definitions and Abbreviations

ARENA	The Australian Renewable Energy Agency – an independent agency of the Australian Federal Government, created to support the global transition to net zero emissions by accelerating the pace of pre-commercial innovation.
Annual Planning Report	TasNetworks' yearly planning document setting out the results of the annual planning review, prepared under NER clause 5.13.2.
Augmentation	With respect to a transmission or distribution system, to work to enlarge the system or to increase its capacity to transmit or distribute electricity.
DCCEEW	Department of Climate Change, Energy, the Environment and Water
Demand	The amount of electrical power delivered at a defined instant, usually in reference to an aggregated set of connection points.
Demand Management	The act of reducing electrical demand.
Draft Project Assessment Report	The report prepared under NER clause 5.17.4(i).
Final Project Assessment Report	The report prepared under NER clauses 5.17.4(o) or (p).
Embedded Generating Unit	A generating unit connected within a distribution system and not having direct access to the transmission network.
Embedded Generator	A person who owns, operates or controls an embedded generating unit.
EV	Electric Vehicle.
Identified need	The objective that TasNetworks seeks to achieve by investing in the network in accordance with the NER or an Integrated System Plan.
Load	The amount of electrical power delivered at a defined instant, usually in reference to a single connection point.
NER	The National Electricity Rules.
Network option	A means by which an identified need can be fully or partly addressed by expenditure on a transmission asset or a distribution asset which is undertaken by a TasNetworks but excluding a SAPS option.
Non-network option	A means by which an identified need can be fully or partly addressed other than by a network option or a SAPS option.
Options Screening Report	The report prepared under NER clause 5.17.4(b).
Project Specification Consultation Report	The report prepared under NER clause 5.16.4(b).
RIT-D	Regulatory Investment test for Distribution.
SAPS option	A means by which an identified need can be fully or partially addressed by converting a part of a distribution network forming part of the interconnected national electricity system to a regulated SAPS
SAPS	Stand-Alone Power System – a system that generates and distributes electricity and does not form part of the interconnected national electricity system
SCADA	Supervisory Control and Data Acquisition – a control system architecture used by TasNetworks
TUoS	Transmission Use of System

Appendix B: Options Screening Report

An Options Screening Report seeks to discover demand management and SAPS options that are not known to TasNetworks.

The report will contain the following information:

- description of the network constraint or identified issue and the assumptions used to identify the issue
- details on the amount of load reduction and its duration required, and timing of project
- demand profile showing the peak period and time periods of peak
- Predicted frequency of peak demand events
- required contribution of solution to power system security and reliability – including where relevant the fault levels
- forecast load growth and a geographical map of the affected area
- description of network, demand management, and SAPS options, and
- benefit of deferring or avoiding the network option.

We will notify stakeholders registered on our industry engagement register upon the publication of the Options Screening Report. Parties interested in providing submissions to an Options Screening Report should include the following information:

- name, address and contact details of individual or company making the submission
- network limitation description: provide information on the network limitation the option is trying to address
- description of services offered: what is being offered by the provider
- service level: describe the availability of the solution offered and assumptions on how often the service is available per day and seasonally (when peak demand occurs)
- description of technology used: details on the technology including opportunities to provide real-time SCADA monitoring and method for dispatch (i.e. manual or remote via TasNetworks SCADA)
- risks and assumptions: what assumptions have been made in estimating the level of solution required and describe any risks (e.g. acquiring a minimum number of customers)
- Timeline: when can the solution be enabled and how far into the future is the option available, and
- Cost for providing service: For non-network suppliers this is the network support payment paid to the non-network provider when requested by TasNetworks in $/kW.

Refer to Appendix C for an example of a non-network proposal.

Appendix C: Example of non-network proposal for a distribution project

Example Demand Management Proposal

Name: XYZ Company, 123 Tasmania Road, Tasmania

Network limitation description: Hobart Substation has exceeded its equipment capacity as shown in the recent TasNetworks Annual Planning Report. A minimum of 1.5 MW load reduction is required to defer the need for network investment. The identified peak period only occurs for approximately 12 events per year over winter between 7-10 am and 4-9pm.

Description of services offered: XYZ Company is an electricity aggregator that specialises in managing a large number of residential, commercial and industrial customers across Australia. For this project, XYZ Company intends to engage and incentivise residential and business customers in the impacted area to reduce or shift their load during peak periods. This would require XYZ Company to engage with approximately 3,500 residential customers that aggregate 2.5 MW of load capacity, this will ensure the minimum 1.5 MW of load reduction can occur. While the exact mix of support is unknown in Tasmania, XYZ Company have worked with other utilities on similar projects that include:

- Residential customers (hot water, batteries, other discretionary loads);
- Commercial customers (backup generation, demand deferral or reduction); and
- Industrial customers (backup generation, process modification or rescheduling).

The offer includes the following end-to-end services:

- Engaging customers (including marketing);
- Hardware installation and maintenance;
- Ongoing communications with hardware and customers;
- Real-time SCADA data monitoring; and
- Automatic and manual dispatch of support through XYZ Company interface.

For this project, a manually dispatched solution is the preferred option. This reduces the integration costs significantly but requires TasNetworks control room people to call XYZ Company operations centre to schedule support. An automatic option is also available.

Service level: The solution is tuned to the TasNetworks specification and will offer:

- At least 1.5 MW demand reduction for at least 3 hours twice a day on each network support day;
- 99% guaranteed response when support is scheduled at least one working day ahead;
- Up to 20 demand response days in a winter period (June – August);

This relay has a proven life of over 10 years. Some examples of where it has been used in the past are:

- Hot water cylinder control for Utility X in Victoria (contact details for Utility X);
- Controlling Company Z backup generation to manage market prices (contact details for Company Z); and
- Monitoring demand response activities for Utility A in New South Wales (contact details for Utility A).

Risks and assumptions: There are a number of key risks and assumptions that effect this proposal, XYZ Company will work with TasNetworks to manage these. The major risks and assumptions are:

- XYZ Company offers real-time control of customer loads. The load reduction relies on customers having their loads available to respond to support requests. While the load reduction is calculated on many years of experience in this sort of solution there is still a risk that there will not be enough load to meet a request that TasNetworks has made. XYZ Company believes there is an adequate amount of load available for reduction in this proposal. If this is not sufficient then XYZ Company will procure more support;
- Initial assessments show there are enough customers in the area that TasNetworks has nominated to provide the support. If TasNetworks chooses to consider this option further, then Company XYZ proposes to do an initial customer survey to ensure this solution is feasible;
- The customer engagement activities have been priced assuming that most customers will be sourced by advertisements in local media. The budget includes visits for up to five larger customers;
- The estimated price assumes that TasNetworks will field initial customer enquiries. Scripting and materials will be provided by XYZ Company;
- Installation estimates are based on previous experience with similar projects using standard enclosure for installations;
- Hardware integration with many common types of generator controllers and some major batteries. Similarly the controller can switch loads using the built in contactor. Integration with other hardware will be charged at XYZ Company standard engineering rates;
- TasNetworks existing service centre will provide level one support for hardware issues and faults. Scripting and materials will be provided by XYZ Company; and
- Provide ongoing product support and maintenance.

Timeline:

- October 2025: sign agreements;
- November 2025: customer survey

- Real-time data through SCADA monitoring; and
- Manual dispatch of demand support.

Description of technology used: XYZ Company will use 123 relay and 4G or 5G communication at the customer's premises. This relay is capable of measuring customer demand to 1% accuracy and controlling a variety of devices

- November – February 2026: customer engagement and sign-up;
- March – May 2026: hardware installation;
- November – January: SCADA integration; and
- May 2026 system ready

Cost: XYZ Company standard fees and charges are:

- Platform fees of $ (one required for all endpoints);
- Residential endpoints at $ per endpoint; and
- Commercial and industrial endpoints priced at $ per kW under control.

This would result in a cost for a scheme suitable to manage TasNetworks network issue of $ pa.

Appendix D: Factors Considered When Assessing Submissions

The submissions will be reviewed and evaluated according to the following criteria:

- amount of load reduction that can be provided, and whether it is effective over the entire peak period, factoring in forecasts for future load growth
- assumptions used in estimating the amount of demand management or size of a SAPS solution
- implementation issues (e.g. planning permits)
- timeframe for implementation
- information including how the project will be delivered and how far into the future the solution is effective
- risks including implementation delays and mitigation measures
- for a demand management option, how would TasNetworks inform the provider of a peak demand event, and
- any upfront capital contribution costs and ongoing network support costs (i.e. $/kW).

TasNetworks will initially review all proposals and if there are any with insufficient information then those providers will be contacted for more information. Non-network and SAPS options will be compared against the network options. If an option cannot meet either the timeframe or provide the required reliability, then it will be excluded.

For demand management solutions, the final options will be ranked from lowest to highest $/kW. Where an identified need requires a combination of demand management options then we will determine the best mix with a preference on lower $/kW when other factors are considered equal.

For SAPS solutions that meet the technical requirements, the final options will be ranked from lowest to highest lifetime cost.

Appendix E: Example of a Non-Network and SAPS Assessment

This Appendix outlines a fictional example where credible demand management and a SAPS options are assessed against network options.

TasNetworks publishes two Options Screening Reports, one details a network peak demand issue and the other details an issue with a potential for a SAPS solution. Several providers respond to the reports, two credible demand management submissions are received in response to the first Options Screening Report and two credible SAPS submissions are received in response to the second Options Screening Report.

For a proposal to be considered it must:

- meet the technical requirements of the identified need
- meet the operational requirements, and
- meets the timing of the identified need.

Table 1 Assessment of network and non-network options

	Meets technical requirements	Meets operational requirements	Meets the timing of the identified limitation	NPV ranking
Network option 1: Upgrade transformers	✓	✓	✓	2
Network option 2: Build new zone substation	✓	✓	✓	3
Non-network option 1: Customer embedded generating unit	✓	✓	✓	1
Non-network option 2: Commercial customer demand side management	✓	✓	✗	N/A

The example shown demonstrates that non-network option 2 does not meet the criteria because the amount of demand that is required to be controlled cannot be achieved within the timeframe. However, non-network option 2 is found to be the most credible option.

Table 2 Assessment of network and SAPS options

	Meets technical requirements	Meets operational requirements	Meets the timing of the identified limitation	NPV ranking
Network option 1: re-conductor lines and replace ageing poles	✓	✓	✓	2
Network option 2: Strengthen poles and cross-arms	✓	✓	✓	3
SAPS option 1: mini-hydro generator	✓	✓	✗	4
SAPS option 2: Solar PV, battery, and diesel generator back-up	✓	✓	✓	1

The example shown demonstrates that non-network option 2 does not meet the criteria because it cannot be delivered in time and is more expensive than any other option. However, SAPS option 2 is found to be the most credible option.

Appendix F: Avoided Transmission Use of Systems Charges (TUoS)

Our transmission network supplies direct connect customers and the distribution network. A portion of the network charges are determined on how much capacity the transmission network needs to supply.

An eligible embedded generator can receive any costs saved by the distribution network in Avoided TUoS charges. This can only occur when the embedded generating unit operates during peak demand periods. The distribution network can then reduce the maximum demand contract with the transmission network and reduce the cost.

Even though in Tasmania the transmission and distribution functions are in one business (TasNetworks), the NER require the transmission network to pass on its charges to the distribution network.

Further information, including the calculation methodology, can be found on our website at:
TasNetworks - Our Prices

Appendix G: TasNetworks Customer Engagement Framework

TasNetworks Customer Engagement Framework

Increasing Level of Customer Participation

	Inform:	Consult:	Involve:	Collaborate:	Empower:
Customer Engagement Goal	To provide our customers with balanced and objective information to assist in understanding the problem, alternatives, opportunities &/or solutions.	To obtain customer feedback on analysis, alternatives and/or decisions.	To work directly with our customers throughout the process to ensure that customer concerns and aspirations are consistently understood and considered.	To partner with our customers in each aspect of the decision, including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of our customers.
Promise to our Customers	We will keep you informed.	We will keep you informed, listen and acknowledge concerns and provide feedback on how customer input influenced the decision.	We will work with you to ensure your concerns and issues are directly reflected in alternatives we develop and provide feedback on how customer input influenced the decision.	We will look to you for direct advice and innovation in formulating solutions and will incorporate your recommendations into decisions where possible to the maximum extent.	We will implement what you decide.
Customer Engagement Tools	Fact sheets Newspaper/TV/radio Letters/Customer cards Social Media Customer charter Brochures	Focus Groups Community Forums Public Meetings Trade Nights Surveys	Workshops Consumer Engagement Forums	Advisory committees Contracts/Legal Agreements	Delegated decisions

TasNetworks Delivering your power

Appendix H: Alignment with the National Electricity Rules (NER)

In accordance with NER clause 5.13.1(g), TasNetworks must develop and publish an industry engagement document setting out its industry engagement strategy.

The industry engagement document must include the information specified in schedule 5.9.

NER Requirement		Section
a)	a description of how TasNetworks will investigate, develop, assess and report on potential non-network options and (in relation to a SAPS enabled network) potential SAPS options;	Section 7
b)	a description of TasNetworks' process to engage and consult with potential non-network providers to determine their level of interest and ability to participate in the development process for potential non-network options or where applicable, potential SAPS option	Section 8
c)	an outline of the process followed by TasNetworks when negotiating with non-network providers to further develop a potential non-network option or SAPS option;	Section 8
d)	an outline of the information a non-network provider is to include in a non-network or DNSP-led SAPS project proposal, including, where possible, an example of a best practice proposal;	Section 7, Appendix C
e)	an outline of the criteria that will be applied by TasNetworks in evaluating non-network or DNSP-led SAPS project proposals;	Section 7
f)	an outline of the principles that TasNetworks considers in developing the payment levels for non-network options or (where applicable) SAPS options;	Section 8
g)	a reference to any applicable incentive payment schemes for the implementation of non-network options or SAPS options and whether any specific criteria is applied by TasNetworks in its application and assessment of the scheme;	Section 8
h)	the methodology to be used for determining avoided Customer TUOS charges;	Appendix E
i)	a summary of the factors TasNetworks considers when negotiating connection agreements with Embedded Generators;	Section 5
j)	the process used, and a summary of any specific regulatory requirements, for setting charges and the terms and conditions of connection agreements for embedded generating units;	Section 5
k)	the process for lodging an application to connect for an embedded generating unit and the factors considered by TasNetworks when assessing such applications;	Section 5
l)	worked examples to support the description of how TasNetworks will assess potential or SAPS options in accordance with paragraph (a);	Section 7 Appendix D
m)	a hyperlink to any relevant, publicly available information produced by TasNetworks;	Completed
n)	a description of how parties may be listed on the industry engagement register; and	Section 6
o)	TasNetworks' contact details.	Completed

Further information on this document or opportunities to address network limitations can be forwarded to TasNetworks Network Planning Leader at:
planning.enquiries@tasnetworks.com.au

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