

# DEMAND SIDE ENGAGEMENT STRATEGY

/20197/201\_



# **CONTENTS**

1. ABOUT US	1
2. INTRODUCTION	2
3. DSE STRATEGY	3
4. HOW WE ENGAGE WITH STAKEHOLDERS	4
5. STAYING INFORMED ABOUT NON-NETWORK OPPORTUNITIES	5
6. HOW WE IDENTIFY NON-NETWORK OPPORTUNITIES	7
7. HOW WE PROCURE NON-NETWORK OPTIONS	8
8. HOW NON-NETWORK OPTIONS PAYMENTS ARE MADE	10
9. EMBEDDED GENERATION CONNECTIONS	11
10. AVOIDED CUSTOMER TRANSMISSION USE OF SYSTEM (TUOS) CHARC	GES 12
APPENDIX A – WORKED EXAMPLES	13
APPENDIX B – OVERVIEW OF EVOENERGY'S RIT-D PROCESS	16
APPENDIX C – COMPLIANCE WITH THE NATIONAL ELECTRICITY RULES	17
VERSION CONTROL	18
DOCUMENT CONTROL	18

## evoenergy

## 1. ABOUT US

Evoenergy is a licensed utility that provides electricity and gas transmission, distribution and connection services within the Australian Capital Territory (ACT). Our obligations cover all aspects of operation of transmission and distribution networks including customer connections, network planning, design, construction and maintenance.

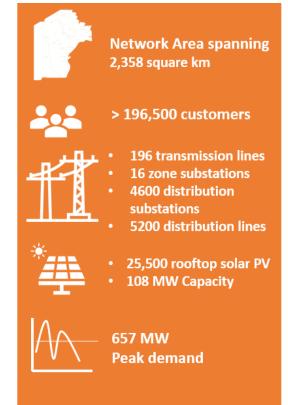
We deliver safe and reliable energy to Canberra and the region. We own and operate 2,358 square kilometres of electricity network that supplies electricity to over 196,500 customers across the ACT.<sup>1</sup>

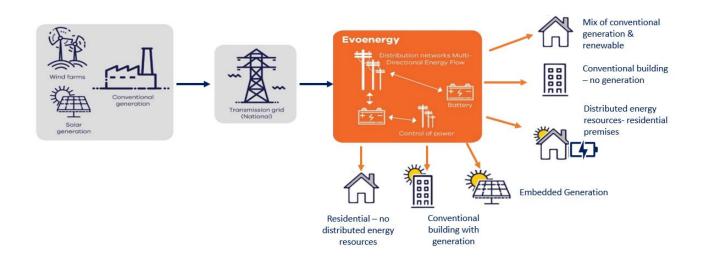
Our network is comprised of 196 transmission lines, 16 zone substations, 4,600 distribution substations and 5,200 distribution lines.<sup>2</sup> We have around 25,500 solar rooftop PV installations on our network generating 108MW of capacity.<sup>3</sup>

Safety, reliability, dependability, trust and certainty are the qualities that matter most to us, along with a commitment to innovation and keeping abreast of the rapidly changing energy landscape.

The figure below shows Evoenergy's position in the energy delivery chain which is increasingly impacted by changes in technology, consumer preferences and distributed energy resources.

Figure 1 – Evoenergy's role in the electricity supply chain





<sup>&</sup>lt;sup>1</sup> Evoenergy, Distribution Annual Planning Report 2019 – customer numbers are based on 30 June 2019 numbers.

<sup>&</sup>lt;sup>2</sup> Ibid, p.33.

<sup>&</sup>lt;sup>3</sup> Ibid, p. 142.

## 2. INTRODUCTION

Evoenergy is obligated under the National Electricity Rules and our distribution license to provide our customers with sufficient security, quality and reliability of supply at the lowest possible cost. As part of these obligations, we actively seek to implement non-network solutions to replace or complement the need for network investment where this delivers a lower cost outcome.

#### What is a non-network option?

A non-network option is a way to address a network need such as a capacity constraint or asset at risk of failure that does not involve capital expenditure in network assets.

Demand management is a type of non-network option where customers are incentivised to reduce their demand from the network. This can be achieved by rebates for installing a new technology such as an energy efficiency appliance, solar PV, controls for charging of electric vehicles, battery systems; or alternatively incentivising customers to change their energy usage behaviour.

Other types of non-network options may involve network side solutions such as batteries or embedded generators which provide services to networks at critical times in exchange for payment. The market for non-network and demand side solutions is rapidly evolving. Consequently, Evoenergy is seeking to proactively and systematically engage with the market and our customers.

Our Demand Side Engagement (DSE) Strategy outlines our approach for building and promoting constructive working relationship between Evoenergy and nonnetwork providers to ensure that future network needs and opportunities can be met by a carefully selected range of network and non-network solutions aimed at optimising economic and technical outcomes.

This will assist Evoenergy in improving its network efficiency to deliver valued services to electricity customers at a lower cost.

We have accordingly developed this strategy document to assist stakeholders in understanding:

- How we engage with potential providers of non-network options (section 4)
- How to stay informed about non-network opportunities (section 5)
- How and when we identify potential non-network opportunities (section 6)
- How interested parties can respond to opportunities (section 7 and Appendix A)
- How we evaluate and procure non-network opportunities (section 7 and Appendix A)

Our DSE strategy document also contains information to assist stakeholders in understanding the requirements for connecting an embedded generator and the basis on which avoided Transmission Use of System (TUOS) charges are calculated (see sections 9 and 10). We have also included a number of worked examples in the Appendices to this document to provide further guidance on the information we typically ask for when stakeholders respond to non-network opportunities, to illustrate how evaluations are made, and avoided TUOS payments are calculated.

### 3. DSE STRATEGY

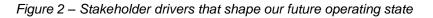
Evoenergy is operating in a rapidly evolving energy environment. We are experiencing changes in technology, consumption patterns, customer preferences, energy policies and regulatory settings. This transformation presents both challenges and opportunities for Evoenergy, consumers and other stakeholders.

Close engagement with our stakeholders plays an integral part in navigating changes occurring in our external operating environment and supports our ability to respond innovatively and flexibly to changes. In developing our DSE strategy approach we have sought to consider the diverse views of stakeholders who directly provide or influence how non-network and demand side solutions are provided. These views have been captured in Figure 2 below.<sup>4</sup>

Our process for engaging and consulting with stakeholders, as outlined in this DSE strategy document, informs and shapes our approach to:

#### **DSE Strategy Objectives**

- Support Demand Side Management (DSM) and provide opportunities for consumers and non-network service providers to participate in addressing network supply limitations.
- Develop and apply a transparent DSM process for network planning and development.
- Develop a suite of demand management tools and alliances to readily facilitate non-network
- Understanding new and emerging non-network options and cost trajectories
- Identifying and providing opportunities to participate in addressing network needs and opportunities
- Continually evolving how we share and collect information from the non-network sector so that it is more effective and reflects stakeholder feedback

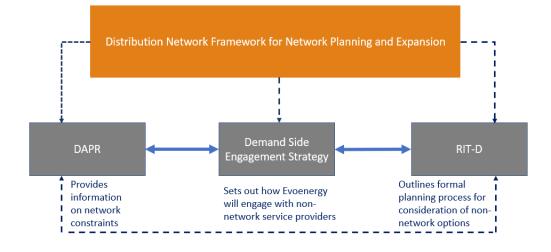




<sup>&</sup>lt;sup>4</sup> Evoenergy, Distribution Planning Annual Report 2019, pp 37-41.

Our DSE strategy forms a key element of the broader network planning and expansion framework. Figure 3 on the next page, illustrates the different purposes of elements under the distribution planning and expansion framework and how these elements interact with the DSE strategy. The Distribution Annual Planning Report (DAPR) provides information on network constraints and limitations. This information helps stakeholders identify network needs or opportunities that could be resolved by non-network solutions, while the DSE strategy document sets out the approach for engaging with Evoenergy to explore the use of non-network options for addressing the identified need or opportunity. The Regulatory Investment Test for Distribution (RIT-D) sets out the formal planning and consultation processes that Evoenergy must follow when considering large scale investment to meet identified limitations or constraints on the network.

Figure 3 – How Demand Side Engagement fits within the broader network planning and expansion framework



#### 4. HOW WE ENGAGE WITH STAKEHOLDERS

There are four main engagement pathways we use to engage with our stakeholders on demand management or other non-network options, as reflected below.

Pathway 1 – Participation in broad based pathways



Broad based demand management programs are designed to address large groups of consumers and other stakeholders who can assist in peak demand reduction.

An example of a broad based program includes interrupting air-conditioning load or refrigerators for short periods to deliver a peak demand reduction without causing a major inconvenience to consumers.

To find out more information about current broad based demand management programs that Evoenergy is offering and how to participate visit the <u>demand</u> <u>management page</u> on our website. You can also register your details to receive information on any of our future broad based projects or programs on our Demand Side Engagement (DSE) Register. Further details on how to stay informed can be found in section 8 of this document.

Pathway 2 – Participation targeted programs	Targeted programs aim to address network limitations in specific areas or pockets of the network (e.g. specific location or suburb). Evoenergy investigates intended network limitations and periodically updates data relating to limitations (e.g. loading formation). As part of our investigation process and depending on the screening assessment of options, Evoenergy may issue a Request for Proposals (RFP) for non-network solutions. Similar, to Pathway 1 you can register your interest in targeted programs on our website and via our DSE Register. Further details and guidance on how to respond to an RFP are outlined in section 7. An example of a best practice response is provided in the Appendix A to provide further guidance.
Pathway 3 – Participation subject to the RIT-D	Participating in a regulatory investment test for distribution (RIT-D) essentially follows the engagement process outlined in Pathway 2, however, under this approach there are formal consultation requirements, set out in the National Electricity Rules, that define the minimum timeframes and the outputs from each consultation stage that Evoenergy is required to provide. Participation in a RIT-D is only for large investments over \$6 million and will involve larger market participants. Evoenergy is required to notify all participants registered on its DSE Register of RIT-D projects. Information relating to RIT-D projects is also published on our website and as part of our
Pathway 4 – Suggestions	DAPR. An overview of the RIT-D process is included in the Appendix B. This pathway refers to stakeholders providing Evoenergy with a suggestion or comment. If you are a large customer (i.e. business and institution) or work in the demand management space and want to explore ways to reduce network constraints, you can contact our demand management team via <u>demandmanagement@evoenergy.com.au</u>

## 5. STAYING INFORMED ABOUT NON-NETWORK OPPORTUNITIES

## **Demand Side Engagement Register**

Individuals, private companies and government departments may register online through our Demand Side Engagement Register to receive information on non-network activities. The DSE Register is intended to facilitate public consultation on network constraints in a timely fashion and to inform stakeholders and other interested parties about potential non-network opportunities.

Stakeholders wishing to register their details on our DSE Register can do so by filling their details under the "Interested Parties Register" which can be located on the bottom of our <u>demand management page</u>. When signing up to the DSE Register non-network providers will be asked to provide the following details:

- Business name (i.e. Non-network provider)
- ABN
- Contact details (name, number, email address, address)
- Type of non-network provider (e.g. large customer, aggregator, technology provider etc)
- Type of non-network option able to provided (e.g. demand response, aggregation of embedded generation, energy efficiency etc)
- Estimates of variable/fixed costs to provide the option
- Maximum and/or minimum of volume required for costs to be applicable
- Any other conditions on cost provided (e.g. availability, reliability, time of day/season, location, support required from Evoenergy etc)

Evoenergy proactively manages the information contained within the DSE Register. Non-network providers on the DSE Register may be contacted from time to time to determine whether the existing information is accurate and whether they wish to remain on the register.

All parties on our DSE-Register will receive:

- Emails informing them about RIT-D projects and opportunities to submit comments and proposals during the consultation process (e.g. non-network option and planning assessment reports)
- Emails informing them of the publication of a Distribution Annual Planning Report (DAPR) or engagement on RIT-D
- Invitations to engage with Evoenergy in demand management stakeholder activities and events including industry briefings

Parties on our DSE Register may also receive invitations to respond to Request For Information/ Request For Proposals (RFP) for specific targeted demand management services.

Evoenergy also reserves the right to notify and encourage submissions from parties not listed on DSE Register where we deem this appropriate. However, being on the register is the best way to guarantee that you will be informed of opportunities as they arise.

#### Information on Evoenergy Website

Evoenergy produces a variety of information and reports that may be useful for customers and proponents of non-network solutions. The following are some examples of the types of report and information that may be made available on our website:

- 1. Distribution Annual Planning Report,
- 2. Publications and requests for information,
- 3. Case studies on non-network proposals,
- 4. Avoided customer Transmission Use of System (TUOS) methodology to determine charges,
- 5. Investigation reports for network augmentation requirements including RIT-D submissions,
- 6. Information to be included in a non-network proposal and a sample of non-network proposals,
- 7. Embedded Generator Connection Code, and
- 8. Details of embedded generation connection application and agreement.

## 6. HOW WE IDENTIFY NON-NETWORK OPPORTUNITIES

Non-network opportunities generally fall into two broad categories: 1) broad based programs; or 2) targeted programs. Targeted programs can be further categorised based on investment cost threshold, with projects over \$6million being subject to the RIT-D process and projects less than \$6million subject to Evoenergy's business as usual approach.

#### **Broad Based Programs**

Broad based programs address network wide demand and supply quality issues and are therefore implemented network wide and can include the implementation of demand based tariffs which are available to customers with compliant metering in our network. Further details on our demand based tariffs can be found on our <u>pricing and tariffs page</u>.

From time to time we will also identify opportunities for technology based demand management programs whereby incentives may be provided for deploying a demand reduction technology or participating in behaviour management programs. Details on current broad based management programs, incentives and application processes can be found on the <u>demand management page</u> of our website.

#### **Targeted Programs**

Targeted non-network opportunities seek to address network needs or opportunities specific to particular areas of our network. These are identified through our annual planning review, which identifies targeted network needs and opportunities likely to emerge over a ten-year period. Results from our annual planning review are published in our Distribution Annual Planning Report (DAPR) which are available on the <u>annual planning page</u> of our website. Key information outlined in DAPR that can assist in the identification of possible non-network solutions include:

- Where there is a requirement to invest in **network capacity** in specific areas that will become constrained over the forecast period
- Where there is a requirement to invest in **replacement** assets where our condition based risk monitoring indicates that assets are reaching end of life and/or are likely to pose an unacceptable risk to safety, environment and/or reliability over the forecast period
- Where there is an opportunity to **de-rate** a network asset to reduce operational expenditure or risk of failure where the derating then results in a capacity constraint

For each identified network need and opportunity, preliminary investigations are conducted to determine economically and technically feasible solutions to specific identified constraints which may include:

- A **network option** (or supply side option) such as increasing the supply capacity into an area by constructing a network asset or replacing an ageing asset. These projects are generally capital intensive and financed internally by Evoenergy
- A non-network option which avoids the need for the network option completely
- Or a combination of a network and non-network option whereby the non-network option may defer the network option and/or reduce the risk to customers before the network investment can be made

All projects, except replacement projects greater than \$1million, are screened for non-network options. Nonnetwork options for replacement projects less than \$1million will still be considered where options are presented to us by non-network providers. Projects over \$6million will be developed in accordance with the RIT-D requirements. An overview of the RIT-D process and consultation timeframes and milestones has been provided as an Appendix B.

Where a credible option is identified via our screening process, or where a credible option is proposed by a non-network provider, we will commence our procurement process. Further information on current targeted non-network opportunities can be found <u>here</u>.

## 7. HOW WE PROCURE NON-NETWORK OPTIONS

Procurement of non-network options at Evoenergy is generally undertaken according to the four-step process outlined below.

#### 1) Request for proposals/ submissions



Where credible opportunities of non-network options are identified we will go to market to procure non-network options via:

- 1) A formal request for proposals issued by Evoenergy where the network option is less than \$6million (Pathway 2); or
- 2) The formal Regulatory Investment Test process where the network option is greater than \$6million (Pathway 3)

The processes are broadly similar except that the RIT-D process requires a lengthier consultation process, whereby non-network providers are given 12 weeks to provide a submission. Under the RIT-D process we also need to formally report and justify the selected option. Under the Request for Proposal process, non-network providers are given six weeks to provide a submission.

Under both process we will provide the following information as a minimum:

- A description of the identified network need or opportunity
- Technical information about the need, including the risks where no option is adopted and the expected value of the risk, energy at risk, duration and load curves, the annual probability and frequency of relevant events
- The location of the identified need and a description of the affected customers classes and network area
- A description of the preferred network or non-network option and cost estimate

#### 2) Submissions

We request that online submissions are submitted via email to <u>demandmanagement@evoenergy.com.au</u>.

Submissions may be provided in response to:

- Requests for proposals during the 6-week submission period
- The RIT-D non-network options report during the 12-week submission period
- Our most recent Distribution Annual Planning Report at any time

Any non-network provider, including individual customers can respond to the RIT-D non-network options report or Distribution Annual Planning Report.

Requests for proposals will usually only be issued to non-network providers we assess as likely to be able to provide a credible option, based on information in our Demand Side Engagement Register (See Section 8).

We request that when making submissions applicants include the following information:

- Details about the party submitting the proposal
- A description of the proposed non-network option and how it can credibly meet the network need or opportunity



## 2) Submissions (continued)



- Relevant technical information such as capacity of generators, dispatch details (e.g. notification times, frequency and duration) and proposed connection points
- Experience in providing similar solutions to other Distribution Network Service Providers (DNSPs) and proven success of solution
- Evidence that they have secured finances to deliver the solution and identify whether any funding is contingent upon rebates/government schemes
- Evidence of technical capability and feasibility of the solution
- Evidence that the non-network provider has gained all the relevant approvals including but not limited to generator and environmental approvals from Australian Energy Market Operator (AEMO) and ACT Government
- An estimate of the required payment and preferred payment structure including a fixed availability fee (\$ per month) and/or an operational fee (e.g. \$ per megawatt-hour -MWh or mega volt-amperes –MVA)
- Any items other items deemed relevant to the non-network solution proposal.

We may also request specified response criteria unique to the identified limitation.

An example of a best practice non-network submission has been included in Appendix A.

#### 3) Evaluation



All submissions are reviewed and evaluated based on the following criteria:

- Ability to meet the technical network need or opportunity (including evidence of past experience)
- Risks that the service provider is not able to achieve the specified outcomes including any:
  - Technical risks (e.g. has the technology been proven in this specific context)
  - Commercial risk (have finances been secured)
  - Regulatory risks (have relevant approvals and licenses been obtained)
  - Cost effectiveness of the proposal
- Timing of the delivery of the non-network solution

Evoenergy will then select the most credible non-network option, being the option, or combination of options, which can fully meet the network need or opportunity at the lowest net present cost. Where the non-network option can fully meet the need but there are material technical or commercial risks, Evoenergy will select the network option, but may consider entering a trial with the lowest cost non-network provider

Where the option with the lowest net present cost is the network option, Evoenergy will choose not to proceed with any non-network option.

All stakeholders who submitresponses to an RFI or RFP will be notified of our assessment outcomes . Submissions made in response to the RIT-D consultation will be reflected in our project assessment draft and final report.

## 4) Contract formation



Where a non-network solution is selected Evoenergy will enter into a contractual agreement with the non-network provider. The contractual agreement will set out:

- The payment structure (including the fixed fee component and/or operational fee component)
- The contract period (the duration over which payments can be made)
- Service levels, performance targets and milestones
- Reporting requirements which may include manual or automated communications alerting Evoenergy to the availability of the solution
- Evoenergy's requirements to provide notification that the option is required to be available
- Penalties to be applied where the option is not made available

Contractual arrangements may be entered into based on Evoenergy proforma contracts for demand management RFPs or RIT-D projects.

## 8. HOW NON-NETWORK OPTIONS PAYMENTS ARE MADE

Payments for network support are negotiated on commercial terms to achieve the lowest cost outcome for Evoenergy's customers.

Our Non-Network Options Report or Requests For Proposals will contain information regarding the value that can be provided from a non-network option including the value of the deferred or avoided network capital and operational expenditure and/or risk mitigation value. These values form an upper bound of the value of payments available.

Payment levels for demand management solution will consider:

- the outcome of the net present cost assessment
- the volume of services required
- the duration over which the services are required
- the frequency at which services are expected to be required
- the duration and number of occurrences of expected demand/energy reduction
- the availability of incentives to Evoenergy under the Demand Management Incentive Scheme
- the proportion of the solution to the demand/energy reduction requirement.

Consultation and information about specific incentive payments may be provided as part of the Non-Network Options Report/Request for proposal or be released as part of the implementation of a selected non-network option.

Non-network options consulted on through the RIT-D process may be eligible for payments under the Demand Management Incentive Scheme (DMIS) subject to meeting the criteria outlined in the Australian Energy Regulator's (AER) DMIS Guideline. Similarly, innovative non-network solutions which are relatively immature but likely to provide benefits in the future may be eligible for payments under the Demand Management Innovation Allowance (DMIA) fund and progressed on a trial or pilot basis.

## 9. EMBEDDED GENERATION CONNECTIONS

Embedded generators, including, solar PV, wind turbines, and hydro generation, battery storage and combustion engines, are all potential non-network options. For embedded generators to provide network services, they must be connected to our network.

If you wish to connect an embedded generator to our network, you must submit a connection application, which can be done by submitting a Special Connection Request (SCR) form. You need to submit a connection application even if you are installing a standby generator or a generator that will not export electricity back into the network.

To connect or alter the connection for an embedded generation unit, Evoenergy requires non-network providers to submit applications for connection via our online application process. The online application process assists to assess and negotiate connection agreements plus consider requirements for setting charges, terms, and conditions. These conditions typically consider customer site information, tariff class, proposed project details, connection type, generation size, export requirements, cost, completion time network impact, protection requirements, Supervisory control and data acquisition (SCADA) integration settings and various other connection guidelines outlined in the Chapters 5 and 5A of the National Electricity Rules (NER).

Table 1 below provides a summary of relevant Evoenergy documentation that can assist stakeholders in making a connection application. All documents listed in Table 1 can be accessed from the <u>embedded</u> <u>generation page</u> on our website.

System Category	Total System Capacity	Type of Generator	Guidelines and reference documents
Micro embedded generator	<= 10 kVA single- phase (excluding ESS)	Inverter Energy System (IES)	Evoenergy embedded generation connection requirements
	<= 30 kVA three-phase (excluding ESS)		Evoenergy micro-embedded generation technical requirements
Low Voltage (LV)	Not a micro EG system & < 1.5 MVA	Inverter Energy System (IES)	Evoenergy embedded generation connection requirements
		Non Inverter Energy System (non-IES)	Evoenergy Low Voltage embedded generation connection requirements
High Voltage	Not a Micro or LV EG system & < 5MVA	Inverter Energy System (IES)	Evoenergy embedded generation connection requirements
		Non-Inverter Energy System (non-IES)	Evoenergy high voltage embedded generation technical requirements
Registered Generator	> 5 MVA & registered within the NEM by	Inverter Energy System (IES)	Evoenergy embedded generation connection requirements
	AEMO	Non-Inverter Energy System (non-IES)	Evoenergy high voltage embedded generation technical requirements
			Technical performance requirements for the connection of large-scale embedded generation to Evoenergy's network

Table 1 - Guidance on documents relevant to submitting an embedded generation connection request

#### 10. AVOIDED CUSTOMER TRANSMISSION USE OF SYSTEM (TUOS) CHARGES

We are required to calculate avoided charges for the locational component of prescribed TUOS services for embedded generators. This is done by first determining the prescribed designated pricing proposal charges (DPPC) payable by Evoenergy without the embedded generator injecting energy and crediting the difference of its actual DPPC payable back to the embedded generator account. Links to the calculation methodology can be found under <u>demand management documents</u> on the demand management page of our website.



## APPENDIX A – WORKED EXAMPLES

#### Example of best practice non-network service provider response to RFP

#### **Evoenergy Project**

Include a reference to the Evoenergy project that the proposal is in response. For example: East Lake Connection Upgrade.

#### **Non-Network Proponent Details:**

Company name provided
Name provided
Phone number provided
Email details provided

#### **Solution Overview**

Type of technical solution proposed: for example: Load Curtailment or Power Factor Quality Correction.

Description of how the proposed solution would operate to address the identified network need or opportunity, including whether the solution fully or partially addresses the need/opportunity.

#### **Operational Parameters**

The following technical details should be provided depending to assess the proposal, however these may vary depending on the identified network need or opportunity specified in the RFP:

- Capacity in MW or MVA of load reduction or generation to be provided and number of units
- the period of notice required before loads can be interrupted or generators started
- availability of the demand management resource (for example available 24 hours, 7 days a week or available on during business days for maximum 8 hours per day) and any restriction on load reduction capacity or generator output at any times of the year
- network connection requirements, (if needed)
- contribution to power system security or reliability
- contribution to power system fault levels, load flows and stability studies (if applicable)

#### Evidence of demonstrated ability

This may include:

- evidence of where the provider has provided a similar solution in the past
- evidence of reliability and availability of the solution in past projects
- evidence that the provider has obtained the necessary approvals and licences required to deliver the solution

#### Timing of solution delivery

Description of when the solution can be delivered, notice requirements, and estimated lifespan/duration of the solution.

#### Proposed operational and contract commitments

Details on financier commitments, outline of any contingencies relevant to delivering the solution, and outline of contractual arrangements that the proponent was willing to enter.

#### **Cost Estimate**

Availability and dispatch fees

#### Worked example of Non-Network Assessment

All credible options received in response to a Non-Network Options Report (NNOR) or RFP are evaluated and assessed against the evaluation criteria noted in section 7. For a non-network option to be considered a credible option it generally must:

- address the identified need or network opportunity outlined in the NNOR or RFP;
- be technically and commercially feasible (e.g. costs lower than benefit to be provided);
- be implemented in sufficient time to meet the identified need or capture the identified network opportunity; and
- rank a NPV rating.

The below example illustrates that while individually a non-network option may not have the highest ranking NPV ranking or fully address the identified network need/opportunity; however, combining non-network options (such as illustrated in the example below) or combining a non-network option with a network option may deliver the best investment value for addressing the identified network need/opportunity.

Option	Addresses network need/ opportunity	Meets technical requirements	Ability to deliver (addresses commercial & regulatory risks) within required timeframes	Ability to be measured and verified	NPV ranking
Network Option 1: Upgrade Feeder	✓	✓	$\checkmark$	✓	4
Network Option 2: Install transformer	✓	✓	$\checkmark$	✓	2
Non-network Option 1: Embedded generator	✓	✓	$\checkmark$	✓	3
Non-network Option 2: Demand management program	×	~	$\checkmark$	$\checkmark$	N/A
Combination of Non- network option 1 and 2: Embedded Generation and Load Curtailment	~	$\checkmark$	$\checkmark$	$\checkmark$	1

#### Worked example of avoided TUOS charges

The following example seeks to illustrate how avoided TUOS charges are calculated by applying the principle outlined in Evoenergy's Avoided TUOS Calculation for Embedded Generators. This information can be located on demand management page under the <u>Demand Management Documents</u> section.

The following examples considers how avoided TUOS charges would be calculated for an embedded solar generator connected directly to Evoenergy's system at the Theodore 11kV busbar. At this particular connection point Evoenergy pays TransGrid the following transmission charges: <sup>5</sup>

- \$2,993.41 per day (transmission charges change annually and these apply only for FY 2020-21)
- \$2.8229 per kW per month

The per day charge cannot be reduced through the use of an EG unless the generator is large enough to supply all load at the connection point. Consequently, for the purposes of this example only the per kW per month charge is relevant.

For the EG to be eligible for payment of avoided TUOS charges, the EG must lower monthly maximum demand at the connection point. A simple example of this would be if the reduction in maximum demand at the connection point equalled the output of the generator at the peak demand interval of the month.

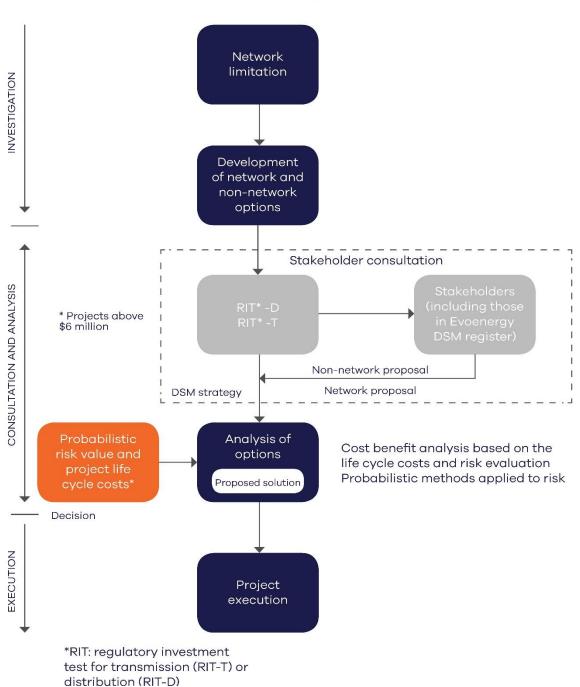
Assuming the EG was generating at 10,000 kW at the time of peak demand (a 30-minute interval), peak demand at the connection point will fall by a slightly different amount due to losses in the distribution network. As the Distribution Loss Factor is 0.9998, the reduction in peak demand at the connection point is only 9,998 kW (10,000 x 0.9998).

The monthly saving to Evoenergy is 9,998 kW x \$2.8229 = \$28,223. Each month the saving is calculated so if the generator does not generate during the peak interval it will not result in any peak demand reduction and will not be paid.

This exercise is repeated for each month to determine an annual Avoided TUOS payment.

<sup>&</sup>lt;sup>5</sup> See Table 1 in Evoenergy's Avoided TUOS methodology 2020-21.

## **APPENDIX B – OVERVIEW OF EVOENERGY'S RIT-D PROCESS**



Assessment Process Network and non-network projects - subject to RIT\*

## APPENDIX C – COMPLIANCE WITH THE NATIONAL ELECTRICITY RULES

Clause	Demand Side Engagement Document Requirement	Reference
а	A description of how the Distribution Network Service Provider will investigate, develop, assess and report on potential non-network options.	Sections 6,7, and Appendix A and B
b	A description of the Distribution Network Service Provider's 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.	Sections 4, 5, 7
С	An outline of the process followed by the Distribution Network Service Provider when negotiating with non-network providers to further develop a potential non-network option.	Section 7
d	An outline of the information a non-network provider is to include in a non-network proposal, including, where possible, an example of a best practice non-network proposal.	Section 7 and Appendix A
е	An outline of the criteria that will be applied by the Distribution Network Service Provider in evaluating non-network proposals.	Section 7 and Appendix A
f	An outline of the principles that the Distribution Network Service Provider considers in developing the payment levels for non-network options.	Section 8
g	A reference to any applicable incentive payment schemes for the implementation of non- network options and whether any specific criteria is applied by the Distribution Network Service Provider in its application and assessment of the scheme.	Section 8
h	The methodology to be used for determining avoided Customer TUOS charges, in accordance with clauses 5.4AA and 5.5	Section 10
i	A summary of the factors the Distribution Network Service Provider takes into account when negotiating connection agreements with Embedded Generators.	Section 9
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 9 and 10
k	The process for lodging an application to connect for an embedded generating unit and the factors taken into account by the Distribution Network Service Provider when assessing such applications.	Section 10
I	Worked examples to support the description of how the Distribution Network Service Provider will assess potential non-network options in accordance with paragraph (a).	Appendix A
m	A hyperlink to any relevant, publicly available information produced by the Distribution Network Service Provider	Sections 4,5,6,9, and 10
n	A description of how parties may be listed on the demand side engagement register	Section 5
0	The Distribution Network Service Provider's contact details	Section 5

#### **VERSION CONTROL**

DATE	VERSION	DESCRIPTION	AUTHOR
16/07/2013	0.1	Initial Draft	Y. Jayathilaka
23/07/2013	0.2	Revised draft	P. Cunningham
21/08/2013	0.3	Revised draft	Y. Jayathilaka
29/08/2013	0.4	Final	Y. Jayathilaka
20/12/2016	1.1	2016 Revision	R. McMurray
08/02/2018	2.0	2018 Revision	R. McMurray
28/08/2020	3.0	2020 Revision	E. Thanavelil

## **DOCUMENT CONTROL**

DOCUMENT OWNER	PUBLISH DATE	REVIEW DATE
Group Manager – Strategy and Operations	28/08/2020	28/08/2023