

# • • • • • • • • • • • **Non-Network Options Report** • **- Box Hill Development Area**

Request for Proposal

24 April 2020



# Contents Overview

This RFP is divided into the following sections:

## ***This Document***

- (a) **Part A** contains general information about the RFP process and the applicable terms and conditions;
- (b) **Part B** contains the form of Proposal and details how suppliers are to respond to the RFP (which is detailed in *Part F – Proponent Response Tables*);
- (c) **Part C** contains the Specification, being a description of the required Goods/Services, which is the subject of this RFP;

## ***Attachments***

- (d) **Part D** contains the Supplier Evaluation Questionnaire
- (e) **Part E** contains the form of the Agreement under which the Goods/Services are to be provided to Endeavour Energy Network Operator Partnership.
- (f) **Part F** contains the Proponent Response Tables; and
- (g) **Part G** contains the Schedule of Documents, which the Proponent is required to acknowledge.

RFP title	Non-Network Option – Box Hill Development Area	
RFP number	NNOR008BOX-A	
RFP issue date	Friday, 24 April 2020	
RFP closing date	Tuesday, 28 July 2020 at 2:00pm AEST/AEDT	
Address of Proposal box	<a href="https://www.tenderlink.com/endeavourenergy/">https://www.tenderlink.com/endeavourenergy/</a>	
RFP contact person	Name	Racquel Parto
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## Part A: General Terms

### Part A: General Terms

#### 1. Introduction

The purpose of this RFP is to seek offers from prospective Proponents for the provision of the Goods/Services described in Part C of this RFP to Endeavour Energy Network Operator Partnership (the company). The company may, in its sole discretion, short-list Proponents to participate in negotiations in respect of the Goods/Services after the Closing Date which may result in a request from the company to short-list Proponents to enter into bi-lateral negotiations. Capitalised terms in this RFP have the meaning set out in section 6.

Proponents should confirm that they have read and understand each section of this RFP. By submitting a Proposal to the company, Proponents will be taken to have accepted all of the terms and conditions set out in this RFP.

#### 2. About Us

Endeavour Energy is a 'poles and wires' business, responsible for the safe and reliable supply of electricity to 2.4 million people in households and businesses across Sydney's Greater West, the Blue Mountains, Southern Highlands, the Illawarra and the South Coast.

Endeavour Energy is 50.4 percent owned by an Australian-led consortium of long-term investors in the private sector operating the network under a 99-year lease. The private sector consortium comprises of Australia's Macquarie Infrastructure and Real Assets, AMP Capital on behalf of REST Industry Super, Canada's British Columbia Investment Management Corporation and Qatar Investment Authority. The remaining 49.6 percent is held by the State of NSW via a corporation constituted under the Electricity Retained Interest Corporations Act 2015.

The 'company' in the remainder of this document means the entities which form the Endeavour Energy Group (Group), these include the Endeavour Energy Network Asset Partnership, the Endeavour Energy Network Operator Partnership, the Endeavour Energy Unregulated Partnership and their respective subsidiaries, Network Finance Company Pty Ltd and Endeavour Energy Network Management Pty Ltd and AUSCONNEX Management Pty Ltd.



## Part A: General Terms

### 3. Timetable for Proposal Process

The following table provides the proposed schedule of the critical dates for the RFP process:

Event	Date
RFP issued	Friday, 24 April 2020
Cut-off date for questions	3 Business Days prior to Closing Date
RFP closes (Closing Date)	Tuesday, 28 July 2020 at 2:00pm AEST/AEDT
Completion of evaluation of Proposals	September 2020
Direct Negotiations subject to RIT-D evaluation	October 2020
Contract awarded	December 2020
Commence provision of Services	March 2021

Proponents must note that, with the exception of the Closing Date, dates set out in the foregoing table are indicative only and may be varied by the company in its sole discretion.

### 4. Proposal Process

#### 4.1 Lodgement of Proposals

Proposals must be lodged electronically to the company's electronic Tenderlink portal <https://www.tenderlink.com/endeavourenergy/> no later than the Closing Date. Where Proponents experience difficulty in lodging Proposals electronically they must contact the RFP contact person prior to the Closing Date, whose name and contact details are set out on the covering page of this RFP ('RFP contact person').

All electronic files must be submitted in Microsoft Office 2003 or higher, Adobe PDF or as prescribed.

#### 4.2 Late Proposal Policy

Proponents must provide detailed evidence to substantiate the reasons for a late Proposal. Proposals lodged after the Closing Date will be recorded by the company and may be considered and evaluated by the company in its sole discretion. The company has no obligation to accept a late Proposal or act on any reason provided by Proponents for a late Proposal.

## Part A: General Terms

### 4.3 Binding Nature of Proposal

Each Proposal lodged by a Proponent will:

- (a) remain valid and open for acceptance for a period of six months from the Closing Date; and
- (b) be a legally binding offer from the Proponent to the company, and as such may be accepted or rejected (with or without conditions) by the company in its sole discretion at any time during this six-month period

### 4.4 Proposal Evaluation

Proposals will be evaluated to identify those which comply with the requirements of this RFP. The evaluation criteria applicable to this RFP are as follows:

- (a) Experience in delivering the service and/or initiative;
- (b) Timing in delivering the service and/or initiative;
- (c) Meeting demand reduction requirements and objectives;
- (d) Cost effectiveness in providing demand reduction; and
- (e) Reliability of the initiative in providing peak demand reduction.

Proponents should note that these evaluation criteria are not listed in any order of precedence

### 4.5 Requests for Information

All enquires in respect of the RFP must be lodged through the Online Forum available at the company's e-tendering portal <https://www.tenderlink.com/endeavourenergy/>. Enquiries of a commercially sensitive nature only may be made in writing to the contact person whose name and contact details are set out on the covering page of this RFP ('RFP contact person').

Proponents must not direct communications to officers or employees of the company other than the RFP contact person without the company's written permission. Under no circumstances can Proponents direct questions to any third party that the company has engaged to prepare the Specification.

The company is not obliged to answer any communication initiated by Proponents later than three Business Days prior to the Closing Date, or as otherwise may be indicated in section 3. However, the company may in its sole discretion seek additional information or material from any Proponent after the Closing Date and all such information and material provided by the Proponent will be taken to form part of that Proponents Proposal.

## Part A: General Terms

Proponents should provide details of their email address(es), as responses to questions of a technical or specification nature will only be provided to the Proponent via email. Where a question or any other information received from a Proponent indicates a material discrepancy in this RFP or in any related information or identifies an area where clarification is required, the company may make their response, together with the initial question or information, available to all Proponents.

### 4.6 Discussions with Proponents

The company may in its sole discretion engage in discussion or negotiation with any Proponent (or simultaneously with more than one Proponent) after the Closing Date. The Proponent agrees that it will engage in such discussions and negotiations with the company in good faith.

### 4.7 Negotiation of Agreement

(a) In accordance with this clause, the marked-up version of the Agreement that the Proponent submits to the company as part of the Proposal response requirements in **Part E** of this RFP will constitute legally binding offers from the Proponent severally to the company, and as such may be accepted or rejected (with or without conditions) by The company in its sole discretion. In particular, the company may determine in its sole discretion:

(i) whether it accepts the offer from the Proponent, in which case the company may, by giving the Proponent notice, require the Proponent to enter into a Contract including terms and conditions identical to the marked-up version of the Agreement; or

(ii) whether it wishes to negotiate the terms of the marked-up Agreement, in which case the company will only negotiate those clauses of the marked-up Agreement that contain amendments requested by the Proponent. All other clauses of the marked-up Agreement will not be subject to any negotiations, as the Proponent will have already indicated its acceptance of such clauses, unless the company considers that consequential changes are required and provided that if the company makes any changes to the Agreement as it is permitted to do in accordance with paragraph (b), then the Proponent will be permitted to negotiate such amendments.

(b) Proponents should note that the Agreement attached to this RFP is an indicative draft only, and the company may in its sole discretion alter the Agreement and any other contractual document which forms the basis of any actual negotiations with any Proponent. Such alterations may be made prior to or during negotiations with such Proponent.

Proponents must note that the company will issue purchase order(s) to the Contractor in respect of the Goods/Services to facilitate invoice processing and that Endeavour Energy Network Operator Partnership's Terms of Purchase (a copy of which can be downloaded from [www.endeavourenergy.com.au](http://www.endeavourenergy.com.au) 'For Suppliers' section); will apply to the extent that such terms and conditions are not inconsistent with the terms and

## Part A: General Terms

conditions contained in the Agreement. If there are any inconsistencies then the terms in the Agreement will prevail (e.g. 5.11(c)).

### 4.8 Notification

The company will notify Proponents as soon as practicable about the outcome of the evaluation of their Proposal at the completion of the RFP process, including if the Proposal has been excluded or rejected. Such notice will include details of the company's point of contact from whom a debrief on the RFP can be provided on request.

## 5. General Conditions of Proposal

### 5.1 Invitation to Treat and Acceptance of Offers

This RFP is an invitation to Proponents to make offers to the company. It will not be construed, interpreted or relied upon, whether expressly or impliedly, as an offer capable of acceptance by any person, or as creating any form of contractual, quasi-contractual, restitutionary or other grounds for claims by any Proponent.

### 5.2 Subject to Formal Written Contract

Subject to the terms and conditions of this RFP, and subject to this clause 5.2, no binding contract or other understanding (including, without limitation, quasi-contractual rights, promissory estoppel, or rights with a similar legal basis) will exist between the company and a Proponent unless and until a formal written contract is executed by both parties.

### 5.3 Other Company Rights

(a) The company may, in its sole discretion and at any stage of the RFP process, do all or any of the following:

- (i) require additional information from any Proponent;
- (ii) change the structure of the RFP process;
- (iii) terminate further participation in the RFP process by any Proponent for any valid reason where there has been a change beyond the company's control that changes the identified network limitation, regardless of whether the Proposal submitted conforms with the requirements in this RFP;

## Part A: General Terms

(iv) terminate any negotiations being conducted at any time with any Proponent for any valid reason where there has been a change beyond the company's control that changes the identified network limitation;

(v) negotiate with one or more Proponents and enter into an agreement without prior notice to any other Proponent;

(vi) change the scope of the Services or other requirements of this RFP;

(vii) consider any non-conforming or late Proposal; and/or

(viii) consider Proposals submitted by two or more Proponents on a 'consortium' basis or similar (provided that one party must undertake the role of prime contractor).

(b) Any time or date in this RFP is for the sole convenience of the company. The establishment of a time or date in this RFP does not create an obligation on the part of the company to take any action or any right in any Proponent that any action be taken on the date established.

(c) The company may vary any time or date in this RFP in its sole discretion resulting from changes that have occurred that affect the identified network limitation. The company will notify the affected Proponents of any changes.

### 5.4 Responsibility for Proposal Costs

Participation in any stage of this Proposal process, or in relation to any matter concerning the RFP, will be at the Proponents sole risk, cost and expense. The company will not be responsible in any circumstance for any costs or expenses incurred by any Proponent in preparing or lodging a Proposal or in taking part in the Proposal process or taking any action related to the Proposal process.

### 5.5 Information Provided

(a) This RFP contains statements derived from information which is believed to be reliable at the date obtained but does not purport to provide all of the information which may be necessary or desirable to enable any organisation to determine whether or not to submit a Proposal or enter into a Contract or arrangement with the company in relation to the Goods/Services; and

(b) None of the company nor any of their respective officers, employees, agents, contractors or advisers gives any representation or warranty, express or implied, as to the accuracy or completeness of any information or statement given or made in this RFP. None of the company nor any of their respective officers, employees, agents, contractors or advisers has carried out or will carry out an independent audit or verification exercise in relation to any part of this RFP (including any information to which reference is made).

## Part A: General Terms

### 5.6 No Reliance

(a) Proponents must form independent judgements about any information and performance or other figures in this RFP and make their own enquiries. None of the company nor any of their respective officers, employees, agents, contractors or advisers has any liability to any person who acts or fails to act in reliance on any information or figures in this RFP; and

(b) The Proponent acknowledges that it has not relied on any other information not contained in this RFP (including without limitation any expression of interest or similar document in relation to the Services).

### 5.7 Liability

To the maximum extent permitted by law, none of the company nor any of their respective officers, employees, agents, contractors or advisers will be liable to any Proponent on the basis of any promissory estoppel, quantum meruit or on any other contractual, quasi contractual, tortious (including negligence), statutory or restitutionary grounds whatsoever as a consequence of any matter or thing relating or incidental to a Proponents participation in the Proposal process, including, without limitation, instances where:

- (a) a Proponent is not engaged to provide the Services;
- (b) the company varies or terminates the Proposal process or any negotiations with a Proponent;
- (c) the company decides not to proceed with acquiring the Goods/Services in whole or in part;
- (d) the company exercises any of their respective rights under or in relation to this RFP; or
- (e) data is lost, corrupted or not received through Proposals being lodged by email.

### 5.8 Precedence of Documents

If there is any inconsistency between Part A of this RFP and any other part of, attachment to or document referenced in this RFP, then the terms of this Part A will prevail to the extent of that inconsistency.

### 5.9 Ownership of Proposals

Without affecting any intellectual property rights which may exist in a Proposal, all Proposals submitted in response to this RFP will become the property of the company for the sole purpose of evaluating the RFP. Without limiting the foregoing, the company may copy and reproduce Proposals for the purposes of evaluation, clarification, negotiation and/or Contract execution and anything else related to these purposes. In addition, the company may retain electronic and hard copies of all Proposals, and any evaluation, negotiation or such other materials as are required for the discharge of their respective legal obligations and in order to efficiently and effectively manage any Contract entered into with a Proponent.

## Part A: General Terms

### 5.10 Collusive Proposal

Proponents and their officers, employees, agents and advisers must not engage in any collusion, anti-competitive conduct or any other similar conduct with any other Proponent or any other person in relation to the preparation or lodgement of Proposals. In addition to any other remedies available under any law or any contract, the company may in its sole discretion immediately reject any Proposal lodged by a Proponent that engaged in any collusive Proposal, anti-competitive conduct or any other similar conduct with any other Proponent or any other person in relation to the preparation or lodgement of Proposals.

### 5.11 Confidential Information

(a) This RFP and any other information provided by the company during the RFP process is confidential information of the company. Proponents must not disclose the contents of this RFP or any other information provided by the company during the RFP process, supply any information, make any statement or otherwise issue any document to any third party concerning this RFP, whether for publication or transmission in any form or otherwise, without the prior written consent of the company.

(b) The company will treat all Proposals and any supporting material provided with Proposals as confidential information and will not disclose their contents to any third party except those employees, agents and advisers of the company who have a need to know and access the confidential information for the purposes of evaluation of Proposals, negotiation of a Contract with any Proponent and for any purposes reasonably ancillary to any products or services provided to the company by the Proponent.

(c) If there is any inconsistency between the terms of any other confidentiality agreement between any of the company and a Proponent and this section 5.11, the terms of this section 5.11 will prevail to the extent of any inconsistency except where such other confidentiality agreement expressly states that it is to apply notwithstanding the terms of this RFP.

### 5.12 Return of Information to the Company

(a) The company may in its sole discretion and at any stage require that all written information (whether confidential or otherwise and without regard to the type of media on which such information was provided to any Proponent including all copies of such information) be:

(i) returned to the company, in which case the Proponent must promptly return all such information to the address identified by the company; or

(ii) destroyed by the Proponent, in which case the Proponent must promptly destroy all such information.

(b) The Proponent will promptly provide written confirmation to the RFP contact person that they have completely fulfilled their obligations under paragraphs (a)(i) and (a)(ii) if required by the company.

## Part A: General Terms

### 5.13 Conflict of Interest

(a) Proponents and their respective officers, employees, agents and advisers must not be in a position which may, or does, give rise to an actual, potential or perceived conflict of interest between the interests of the company and the interests of any other entity during the Proposal process.

(b) Proponents must state in their Proposal any circumstances, arrangements, understandings or relationships which constitute, or may reasonably be considered to constitute, an actual or potential conflict of interest with the Proponents obligations under this RFP or under any Contract which may be negotiated or executed between the Proponent and the company.

### 5.14 Unlawful Inducements

A Proponent and its respective officers, employees, agents or advisers must not have violated and must not violate any applicable laws or policies of the company regarding the offering of inducements in connection with the preparation of their Proposal.

### 5.15 Improper Assistance

Proposals which, in the opinion of the company, have been compiled with the improper assistance of any employee, ex-employee, contractor or ex-contractor of the company, or with the utilisation of information unlawfully obtained from the company, will be excluded from further consideration.

### 5.16 False or Misleading Claims

The company may in its sole discretion exclude or reject any Proposal which in the reasonable opinion of the company contains any false or misleading claims or statements.

### 5.17 Compliance with the Code of Conduct and Statement of Business Ethics

All Proponents must comply with the Code of Conduct and the Statement of Business Ethics of the company (copies of which can be downloaded from [www.endeavourenergy.com.au](http://www.endeavourenergy.com.au) in relation to this RFP and any Contract that the Proponent may enter into with the company arising out of this RFP.



## Part A: General Terms

### 5.18 Applicable Law

The laws applying in the State of New South Wales apply to this RFP, the Services and the Proposal process. Each Proponent must comply with all relevant laws and each Proponent submits to the non-exclusive jurisdiction the courts exercising jurisdiction in New South Wales.

## 6. Definition of Terms Used in this RFP

Definitions of terms used in this RFP:

**Affiliate** means, with respect to any specified person or entity, any other person or entity that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the specified person or entity and includes in the case of the company, its business divisions from time to time and such other persons, entities and Government Agencies which acquire control or become controlled by or in common with the company by legislative or regulatory action from time to time.

**Agreement** means the Agreement in **Part E** of this RFP setting out the terms and conditions upon which the Services or Works will be provided.

**Business day** means a day on which banks are open in Sydney, other than a Saturday or a Sunday, or a day which is a public holiday in Sydney.

**Closing date** means the deadline (date and time) for lodgement of Proposals by Proponents specified in section 3 of this RFP (as may be modified in accordance with this RFP).

**Contract** means a contract to perform the Services or Works between the company and the Contractor to perform the Services or Works.

**Contractor** means the Proponent engaged by the company under several (and not joint) Contracts with the company to perform the Services as a consequence of this RFP process.

**Delivery Milestones** have the meaning given in section **Part C** of this RFP if applicable.

**Endeavour Energy Network Operator Partnership** means Endeavour Energy Network Operator Partnership, constituted under the *Energy Services Corporations Act 1995*, of 51 Huntingwood Drive, Huntingwood New South Wales 2148, Australia.

**Goods/services** or means the goods and/or services described in **Part C** of this RFP.

**Including** means including without limitation.

**Letter of contract** means, where the RFP is for construction-related Services or Works, a Letter of Contract substantially in the form set out in **Part E** of the RFP if applicable.

**RFP** means this Request for Proposal, any attachments and any referenced documents.

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- **Part A: General Terms**

**Service Levels or Performance Measures** have the meaning given in Section 5 of **Part C** (Non-Network Option Objectives) of this RFP if applicable.

**Specification** means the specification for the Goods/Services set out in Section 5 **Part C** (Non-Network Option Objectives) of this RFP

**Proposal** means a complying or non-complying response to this RFP.

**Proponent** means an organisation which obtains a copy of this RFP (and is or remains only a prospective Proponent) or which actually lodges a Proposal.

**The company** means Endeavour Energy Network Operator Partnership.

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- **Part B: Form of Proposal and Proposal Response Tables**

## **Part B: Form of Proposal and Proposal Response Tables**

This **Part B** sets out the information that the Proponent must include as part of its Proposal and the format of the Proposal. It is mandatory that Proponents provide all of the information in the order and format set out in this **Part B**. The company may in its sole discretion disregard any Proposals that do not include all the information set out in this **Part B**, or which are not in the order or format set out in this **Part B**.

### **1. Proposal Response**

#### **1.1 Execution of the Form of Proposal and Alternative Proposal**

Each Proposal must be executed by:

- (a) the Proponent itself; and
- (b) if specified, a company (being a related company for the purposes of the Corporations Act) must execute a Parent Guarantee.

The Form of Proposal and any Alternative Proposal must be executed, in the case of:

- (a) a company – by an individual with authority to bind that company to the Contract or, as the case may be, the Parent Guarantee;
- (b) a partnership – by the signature of not less than two partners with authority to bind the partnership to the Contract; or
- (c) an individual – by signature of that individual.

#### **1.2 Form of Proposal**

The Form of Proposal must be complete and must not be marked in any way. If there is insufficient space in the Form of Proposal to allow completion of it, the Proponent may attach additional pages to the Form of Proposal. Each additional page must:

- (a) follow substantially the same format as the page in the Form of Proposal to which it relates, and identify that page;
- (b) be identified as an 'Additional Page'; and
- (c) be signed by the individuals that sign (or, as the case may be, the individual that signed) the Form of Proposal itself

## • Part B: Form of Proposal and Proposal Response Tables

### 1.3 Alternative Proposals

The company is prepared to consider, in its sole discretion, alternative approaches to those requested in this RFP offered by Proponents ('Alternative Proposals') where the Proponent demonstrates that the Alternative Proposal may be more beneficial to the company than the approaches specified in this RFP. However, the company will consider an Alternative Proposal only if the Proponent also provides in its Proposal a response that conforms to the requirements and format specified in this RFP.

Where an Alternative Proposal is submitted, a Proponent must also:

- (a) submit the Alternative Proposal under cover of a form of Alternative Proposal in accordance with section 1.4;
- (b) separately identify, in detail, how the Alternative Proposal differs from the Proposal;
- (c) provide a commentary as to how the Alternative Proposal represents better value for money; and
- (d) explain the financial impact and any other consequences of the Alternative Proposal compared with the Proponents response that conforms to the requirements specified in this RFP.

The company may in its sole discretion include in or exclude from its evaluation any Alternative Proposal proposed by any Proponent. In exercising this discretion, the company may accept such Alternative Proposal and incorporate the same in whole or in part into the Contract (without regard to whether the Proponent proposing the Alternative Proponent is the successful Proponent).

### 1.4 Form of Alternative Proposal

The form of any Alternative Proposal must be substantially similar to the Form of Proposal. Each page of the form of the Alternative Proposal must be signed by the same individuals that sign (or, as the case may be, the individual that signed) the Alternative Proposal itself.

### 1.5 Response Tables

**Part F** sets out the information that the Proponent must include as part of its Proposal and the format of the Proposal. It is mandatory that Proponents provide all of the information in the order and format set out in this section. The company may in its sole discretion disregard any Proposals that do not include all the information set out in **Part F**, or which are not in the order or format set out in **Part F**.

## • Part B: Form of Proposal and Proposal Response Tables

### FORM OF PROPOSAL (Form B1)

To: The company

By: [Proponent to insert] ....., ABN [Proponent to insert] .....

Of ('Proponent')

#### 1. The Proposal

1.1 We, [Proponent to insert] .....

*(in block letters)*

the undersigned, Proposal to supply the Goods/Services in accordance with our Proposal in response to Request for Proposal for Non-Network Option – Box Hill Development Area ('the RFP') for

\$\_\_\_\_\_ (exclusive of GST) **OR** the amounts specified in the schedule of rates submitted with the Proposal (exclusive of GST).

1.2 We undertake, if this Proposal is accepted, to forthwith commence the work under the Contracts, and to perform it in accordance with the Proposal (including, without limitation, the terms and conditions set out in the Agreement).

1.3 We undertake to be bound by this Proposal for the period referred to in section 4.3, Part A of the RFP and that this Proposal may be accepted by the company at any time before the expiration of that period.

1.4 This Proposal will not be deemed to have been accepted by the company unless and until a Letter of Contract is executed between the Proponent and the company.

1.5 We understand that the company is not bound to accept the lowest or any Proposal that the company may receive.

1.6 We represent and warrant that:

(a) we have complied with the company Code of Conduct and the Statement of Business Ethics in preparing this Proposal; and

(b) pursuant to Part A section 5.13 (b) of this RFP, we have no perceived or real conflicts of interest **OR** have declared any conflicts of interest in our Proposal in the relevant section of Part F;

(c) we have duly complied with all applicable laws, including in particular the *Competition and Consumer Act 2010* (Cth) ('Laws') in connection with our Proposal;

## • Part B: Form of Proposal and Proposal Response Tables

- (d) we have not been directly or indirectly concerned in, or party to, a contravention of any Laws, and in particular, we:
  - (i) have not been directly or indirectly concerned in, or a party to, any contract, arrangement or understanding that could give rise to a contravention of any Laws; and
  - (ii) have not engaged in, been directly or indirectly concerned in or a party to any conduct or practice which could give rise to a contravention of any Laws;
- (e) by submitting this Proposal or by entering into, or giving effect to, any agreement that we might enter into with the company should we be selected as the successful Proponent, we will not:
  - (i) contravene any Laws in any respect; or
  - (ii) be directly or indirectly concerned in, or a party to, a contravention of any Laws;
- (f) have adopted and implemented a compliance program (including an appropriate trade practices compliance program) that is designed to guarantee that all of our relevant officers, employees, agents are aware of the Laws and the risks to the Proponent and themselves in not complying with the Laws ('Compliance Program');
- (g) have enforced and will continue to enforce compliance with the Compliance Program;
- (h) require all our personnel to complete compliance training in accordance with the Compliance Program to the satisfaction of the company;
- (i) every person that makes a representation on our behalf as part of our Proposal has completed training in accordance with the Compliance Program;
- (j) we have prepared our Proposal and will enter into any Contract with the company with respect to the work under the Contracts based on our own investigations, interpretations, deductions, information and determinations;
- (k) we have satisfied ourselves as to the completeness, correctness and sufficiency of our Proposal and that our price covers the costs of complying with all the obligations in the Proposal documentation and of all matters and things necessary for the due and proper performance of the work under the Contracts;
- (l) we are aware that the Information Documents were provided to us by the company for our information only and will not form part of any Contract, where 'Information Documents' means non-binding data, documents, pictures or drawings that do not form part of the Specification and which may be provided by the company to Proponents prior to, or during, the Proposal process by way of context or background only; and
- (m) we have not in any way relied upon the [Information Documents] for the purposes of preparing our Proposal or entering into any Contract with the company with respect to the Goods/Services.

## • Part B: Form of Proposal and Proposal Response Tables

- 1.7 We acknowledge that the company will be relying on the representations and warranties set out in this Form of Proposal in considering the Proposal.
- 1.8 We acknowledge that the company will be relying on the representations and warranties set out in this Form of Proposal in entering into any agreement with us arising from our Proposal.
- 1.9 We acknowledge that each party constituting the Proponent is bound jointly and severally by this Proposal.
- 1.10 To the extent that the *A New Tax System (Goods and Services Tax) Act 1999 (Cth)* applies, we warrant that we are registered for the purposes of such Act.

### 2. Proponents details

Name of Proponents Representative: .....

Address or Registered Office of Proponent: .....  
.....

Address for service of notices (NOT P.O. BOX): .....  
.....

Telephone Number: .....

Email address of Proponents Representative: .....

Proponents Bank: .....  
(Name) (Branch)

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- **Part B: Form of Proposal and Proposal Response Tables**

If a firm, the names and addresses of the individual members are: .....

If a company, the related bodies corporate are: .....

.....

Dated this ..... day of ..... 20 .....

SIGNED by [*insert Proponents details*]  
for and on behalf of the Proponent in the  
presence of:

(Signature) .....

.....  
(Signature of Witness)

.....  
(Name and occupation of witness)

I [*insert name of signatory*] warrant that I hold the position of [*insert*] in the Proponent and am duly authorised to sign this Proposal for and on behalf of the Proponent:

.....



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- **Part C: Specification**

## **Part C: Specification**

### **1. Overview**

Endeavour Energy releases the Distribution Annual Planning Report (DAPR) on an annual basis. The report details the forthcoming RIT-D projects to be investigated for non-network options. This Non-Network Options Report is listed in the Endeavour Energy 2019 DAPR.

Endeavour Energy supplies electricity network services and other regulated services to over one million customers, or 2.4 million people, in households and businesses across a network franchise spanning 24,980 square kilometres in Greater Western Sydney, the Blue Mountains, Southern Highlands, Illawarra and the South Coast.

We power the third largest economy in Australia, with the population of Greater Western Sydney forecast to grow approximately 46% by 2031. Our network area includes some of the fastest growing residential development areas and employment areas in the Australia in both greenfield and brownfield sites. This has seen CBD's and high-density developments grow rapidly in recent times. We also maintain 164 zone substations (ZS) and over 32,000 distribution substations connected by over 50,000 kilometres of underground and overhead cables.

In NSW, the operation of each Electricity Network Operator is governed by the Electricity Supply Act 1995 and associated regulations. The Electricity Supply (Safety and Network Management) Regulation 2014 requires that an AS5577 compliant Electricity Network Safety Management System (ENSMS) be put into place for each Network Operator.

The intent of the ENSMS is to minimise risk to people working on or near the network, the public, property and equipment as well as the environment by addressing the managing the following aspects of the electrical network

- Design
- Construction
- Commissioning
- Operations
- Maintenance and
- Decommissioning

## • Part C: Specification

Endeavour Energy's corporate planning framework is made up of strategic objectives that are designed to promote the long term interests of our customers by targeting three key strategic goals:

- Safety – to improve safety performance for employees, contractors and the community;
- Reliability – to maintain the reliability, security and sustainability of the network; and
- Sustainability – to ensure our business is sustainable by making it efficient, affordable and competitive so that it can meet future challenges

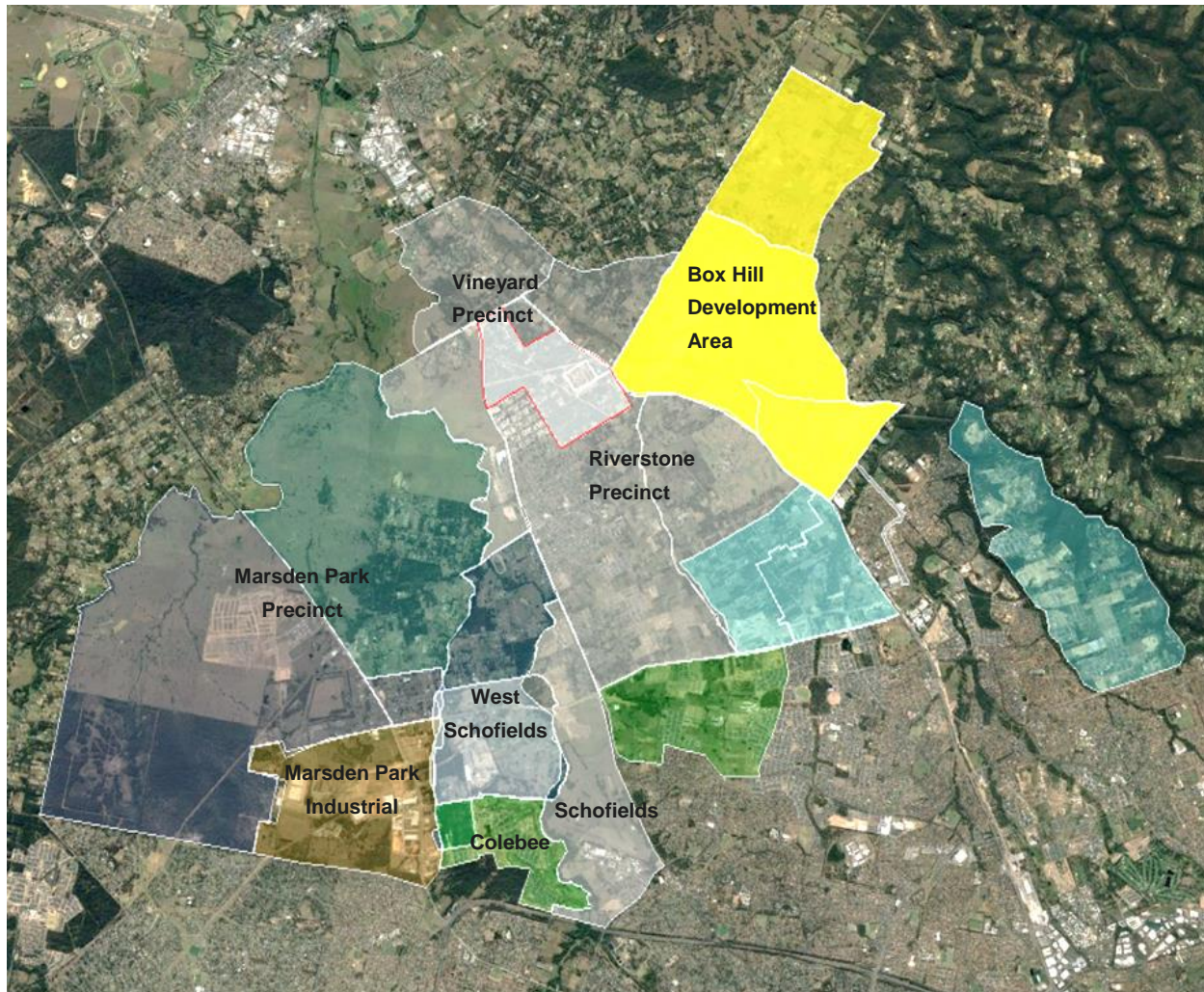
Endeavour Energy applies a lifecycle approach to managing its network and the assets that comprise it. This involves considering all costs associated with the asset throughout its useable life. Endeavour Energy's approach captures competing stakeholder requirements in decision making, and is supported by a spectrum of systems, processes and continual improvement.

This approach has been consolidated through embedding and integrating of functions such as network planning and asset performance with other "more operational" asset management functions that allows integration of the whole-of-life asset decision processes. Endeavour Energy has created a holistic life-cycle management approach with benefits in capital efficiency and investment optimisation

The approach is integrated within the Regulatory Investment Test for Distribution (RIT-D) evaluation process which includes consideration of non-network solutions, such as embedded generation and demand management, and is conducted through a consultation process. The identification of these types of initiatives requires effective engagement of non-network service providers. This report provides non-network proponents and interested parties the opportunity to submit proposals that will address non-network option objectives and offer cost effective alternatives to augmenting the network to meet future demand in the Box Hill Development Area located within the North West Priority Growth Area, refer Figure 1.

## Part C: Specification

Figure 1: Box Hill Development Area within the North West Priority Growth Area



The demand in the development area is expected to grow to 41 MVA by 2027. This will require additional electricity infrastructure to supply this level of demand growth. The initial development is being supplied by three 22kV feeders from Mungerie Park ZS and one 11kV feeder from Riverstone ZS.

The purpose of this report is to identify credible non-network options that may provide a more cost-effective solution to address the identified network need considering life cycle costs. This report provides the technical characteristics that a non-network option will need to meet to address the growth in peak demand. Endeavour Energy requires sufficient detail in the non-network option submission to properly evaluate and compare all options equally. Endeavour Energy welcomes questions from proponents in order to assist the

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- **Part C: Specification**

development of a complete submission. Endeavour Energy may seek clarification from proponents where information provided is not clear or is incomplete.

To comply with the RIT-D, Endeavour Energy will issue a Draft Project Assessment Report (DPAR) and a Final Project Assessment Report (FPAR) detailing the preferred option. If a non-network option is preferred, or part of the preferred solution, Endeavour Energy will directly negotiate and seek to engage the successful proponent(s) to secure non-network services. The selection criteria are detailed in section 9.4 and the timetable for selection is detailed in section 3 of Part A. Endeavour Energy will consider multiple non-network initiatives to achieve the overall demand reduction targets required on the 22kV network supplying the Box Hill development area from Mungerie Park ZS. Initiatives must be cost-effective in their own right and will be ranked in order of cost-effectiveness.

This Non-Network Options Report is an invitation to proponents to submit non-network solutions to be considered by Endeavour Energy and used as the basis for engagement if the proposal is shown to be cost-effective and is selected to be the preferred option, or part of the preferred option.

Information on providing a non-network option submission is included in section 9 of Part C and section 4.1 of Part A of this document.

## **2. Introduction**

### **2.1 Purpose**

Endeavour Energy has prepared this Non-Network Options Report (NNOR) in accordance with the requirements of section 5.17.4 of the National Electricity Rules (NER) and the RIT-D process. This process must be followed for all RIT-D projects, that is, where the most expensive potential credible option to address the identified need is more than \$6 million. As part of the RIT-D process, distribution businesses must consider non-network options when assessing credible options to address the identified need.

Distribution businesses must screen all RIT-D projects to determine the feasibility of a non-network option to address the network limitation or renewal project. Where it is determined to be feasible the distribution business must publish a NNOR as part of the RIT-D consultation procedures. Endeavour Energy is seeking to obtain submissions from the market and interested parties for non-network alternatives to manage the load at risk.

### **2.2 Objective**

The objective of the non-network option is to obtain sufficient demand reduction on the network to address the network limitation created by the demand growth resulting from the Box Hill development area. A successful non-network option will defer or avoid the construction of additional electricity infrastructure to supply the development area. Endeavour Energy will implement a non-network option that meets the program objectives and is, or is part of, the most cost-effective solution to address the network need.



## • Part C: Specification

This report provides Interested Parties and non-network service providers with the appropriate information and opportunity to consider how to address the identified need on the network and make a submission for non-network options.

This NNOR:

- provides the background information on the network capacity limitations;
- details the demand forecast for the Box Hill Development Area and surrounding distribution network;
- describes the credible network options considered to address the identified need;
- provides the demand reduction target and objectives for non-network options;
- quantifies the value of a non-network option in terms of network investment deferral and the financial remuneration to implement demand reduction initiatives;
- provide instructions on how to apply to be on Endeavour's Register of Interested Parties and how to make a submission; and
- seeks submissions from Interested Parties on credible non-network options for reducing peak demand on the network.

### 3. Background

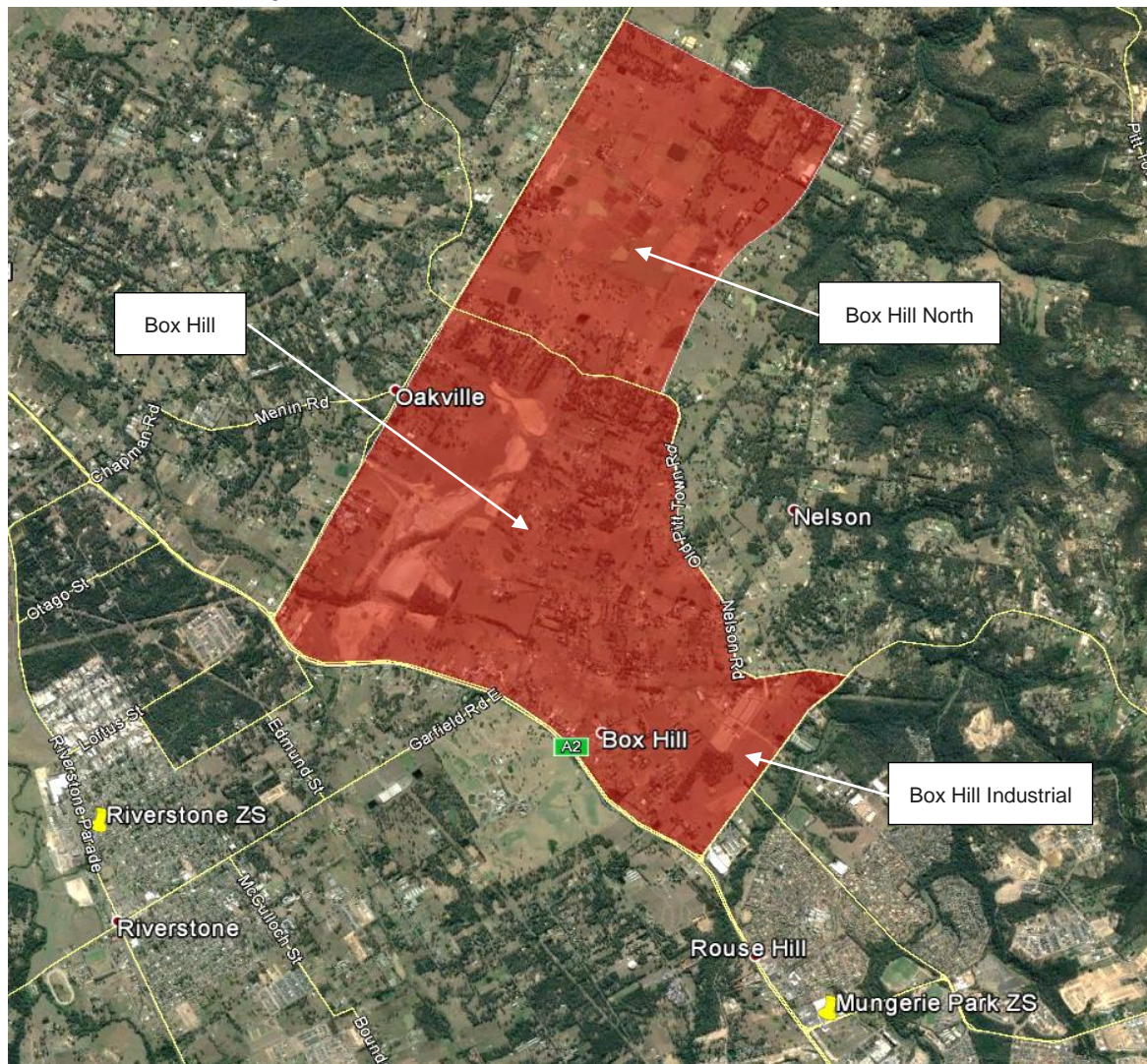
The Box Hill and Box Hill Industrial precincts are part of the NSW Government's North West Priority Growth Area. Box Hill previously had a rural zoning with large landholdings, making it a greenfield site in terms of urban development. Box Hill was subject to an approved rezoning to urban development in April 2013. Both precincts will deliver approximately 10,000 new homes with employment lands and a new town centre.

At a similar time, a developer had a large parcel of land at Box Hill North. This land is adjacent to but outside the boundary of the North West Priority Growth Centre. This land was also approved for urban development under the Precinct Acceleration Protocol. The Box Hill North developer will deliver approximately 4000 new homes with a new town centre.

The Box Hill Development Area which is comprised of Box Hill, Box Hill Industrial and Box Hill North precincts, will altogether deliver 14,000 new homes, a town centre and three village centres, 133 hectares of employment land, 58 hectares of recreational and environmental space, new primary and high schools. Development has already commenced in Box Hill and Box Hill North with new home owners now starting to occupy the new residential subdivisions. Figure 2 below shows the boundary of the entire Box Hill Development Area.

## Part C: Specification

Figure 2: Box Hill Development Area



### 4. Identified Network Need

The identified network need is driven by the new housing and employment land development. The existing network has insufficient capacity to supply the increase in demand and additional capacity into the Box Hill development area is required to enable additional customers to connect and cater for the growth in demand.

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- **Part C: Specification**

#### **4.1 Existing Network Overview**

Originally, the Box Hill Development Area was supplied by three 11kV overhead feeders from Riverstone ZS. These feeders were built to a rural standard and previous analysis indicated that although there was capacity available in the 11kV distribution network, the addition of load from Box Hill Development Area would have produced excessive voltage drops greater than 6% resulting in voltage delivered to customers below the relevant Australian Standard. A zone substation was originally proposed to be constructed in the area by 2016. A RIT-D consultation process carried out in 2016 determined that the extension of distribution feeders into the area to defer the construction of the zone substation delivered the most nett market benefits.

Due to the limitations in the Riverstone ZS and the proximity of Mungerie Park ZS to the development area, two new 22kV feeders from Mungerie Park ZS were constructed in 2017 as part of the first stage of establishing supply in the area. Mungerie Park ZS is situated at a similar distance from Box Hill Development Area as Riverstone ZS but has a reticulation voltage of 22kV. Mungerie Park ZS substation also at that time had capacity available to supply the area.

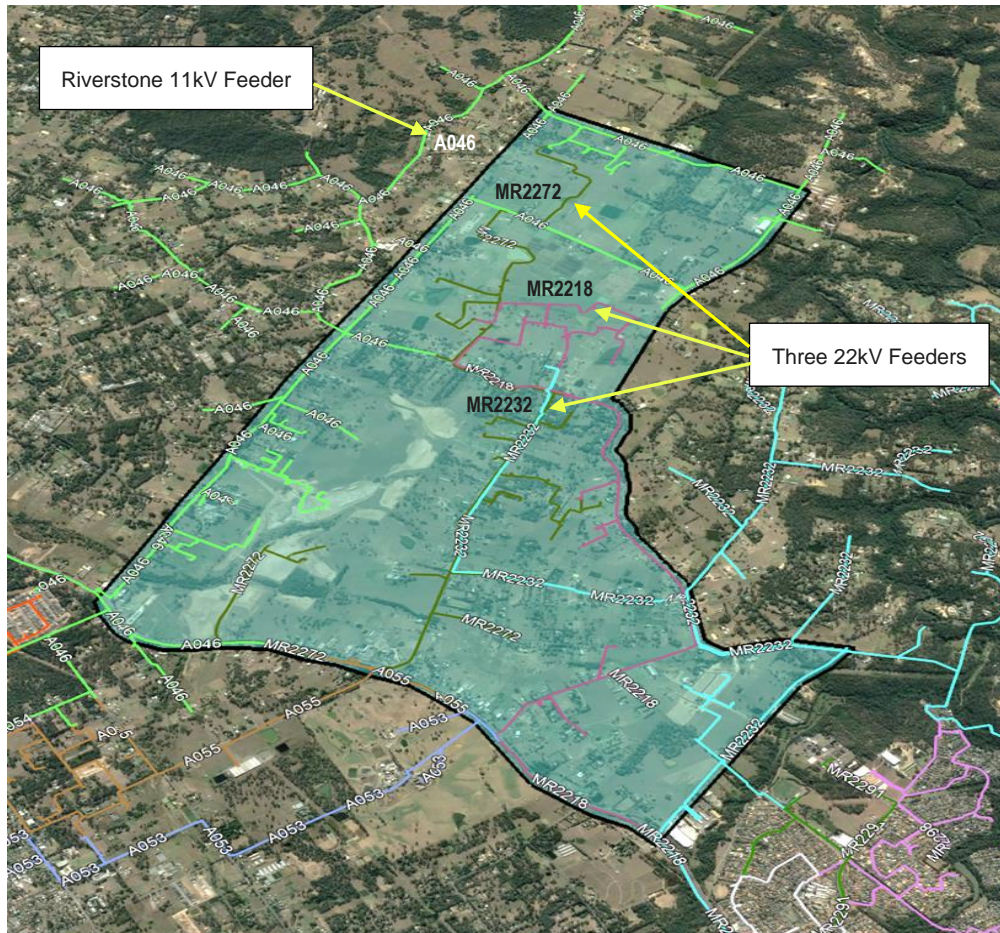
Another 22kV feeder from Mungerie Park ZS currently supplies the built areas of Annangrove, Nelson and a small part of Rouse Hill at 11kV via a 22/11kV auto transformer. In 2018, a developer funded extension of this feeder was constructed. The extension of the existing feeder now supplies the development area at 22kV.

In addition to the three 22kV feeders out of Mungerie Park ZS, small areas of Box Hill are supplied from one 11kV feeder out of Riverstone ZS. The three 22kV feeders and one 11kV feeder are shown in Figure 3 below.



## Part C: Specification

Figure 3: Feeders supplying Box Hill Development Area



### 4.2 Description of Network Need

The development of 14,000 new homes along with the town centre, three village centres, schools and employment land will eventually require 41 MVA of capacity.

The two 22kV feeders out of Mungerie Park ZS, MR2218 and MR2272, dedicated to the Box Hill Development Area provide connection capacity of 18 MVA. Another 22kV feeder out of Mungerie Park ZS, MR2232, offers an additional connection capacity of 9 MVA, of which 4 MVA is load from existing areas of Annangrove, Nelson and a small part of Rouse Hill. While this feeder traverses the Box Hill development area, part of its capacity is allocated to these other areas.

In addition to the three 22kV feeders out of Mungerie Park ZS, small areas of Box Hill are supplied by 11kV feeder A046 from Riverstone ZS. This feeder currently has spare capacity of approximately 1 MVA based



## Part C: Specification

on the most recent data. However, due to the length of this feeder this capacity cannot be utilised due to voltage drop issues. Therefore, additional load from the Box Hill Development Area cannot not be connected to this feeder.

The overall connection capacity available to supply the Box Hill development and existing surrounding area equates to 27 MVA. This capacity should not be exceeded when connecting new load. The three 22kV feeders from Mungerie Park ZS, MR2272, MR2218 and MR2232 are shown in Table 1. Also shown is the available capacity to supply load growth.

**Table 1: 22kV Feeders supplying Box Hill Development Area**

Feeder no.	Description	Capacity (MVA)	2018 Actual Load (MVA)	Available Capacity (MVA)
MR2218	22kV feeder dedicated to Box Hill	9.0	1.0	8.0
MR2272	22kV feeder dedicated to Box Hill	9.0	0.9	8.1
MR2232	22kV feeder supplying Box Hill and existing area outside Box Hill	9.0	4.0	5.0
<b>Total</b>		<b>27.0</b>	<b>6.0</b>	<b>21.0</b>

Note: The 4.0 MVA load from Feeder MR2232 is from existing areas neighbouring Box Hill Development Area

### 4.3 Demand Forecast

The demand forecast for the Box Hill Development Area is shown in Table 2 and is based on lot release information from the developer and the Department of Planning and Environment for the North West Priority Growth Area.

The demand forecast table includes the Box Hill Development Area and the existing areas of Annangrove, Nelson and a small part of Rouse Hill which are connected to the 22kV feeder out of Mungerie Park ZS. Endeavour Energy has already received and agreed to firm subdivision connection applications for over 5,000 homes and apartments which will exceed existing capacity when fully developed. The forecast table below shows that there is load at risk from FY2022/23.

## Part C: Specification

**Table 2: Box Hill Development Area Demand Forecast**

Item	Actual MVA	Forecast (MVA)								
Summer	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Residential Demand	2.0	7.8	11.8	16.0	20.2	24.4	28.6	31.6	33.8	36.0
Commercial / Industrial Demand	0.0	0.0	0.0	0.0	0.0	1.0	2.0	3.0	4.0	5.0
Total Demand Box Hill Development Area	2.0	7.8	11.8	16.0	20.2	25.4	30.6	34.6	37.8	41.0
Existing Area Demand <sup>1</sup>	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
<b>Total Demand</b>	<b>6.0</b>	<b>11.8</b>	<b>15.8</b>	<b>20.0</b>	<b>24.2</b>	<b>29.4</b>	<b>34.6</b>	<b>38.6</b>	<b>41.8</b>	<b>45.0</b>
<b>Capacity (22kV Feeders)</b>	<b>27.0</b>	<b>27.0</b>	<b>27.0</b>	<b>27.0</b>	<b>27.0</b>	<b>27.0</b>	<b>27.0</b>	<b>27.0</b>	<b>27.0</b>	<b>27.0</b>
<b>Load at Risk</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.4</b>	<b>7.6</b>	<b>11.6</b>	<b>14.8</b>	<b>18.0</b>

Note 1: Refer to Table 1 for the actual load from the existing area supplied by Feeder MR2232.

### 4.4 Network Limitation

The distribution network is designed, constructed and augmented in accordance with probabilistic planning principles in line with general industry practice. Taken into consideration are the conditions driving network augmentation and construction. Endeavour Energy analyses constraints resulting from the capacity limitations by determining the load at risk and the expected unserved energy over the 10 year forecast period. The trigger for network investment is based on a cost benefit analysis and comparing the annualised cost of the preferred network option with the option benefits.

Sections 4.2 and 4.3 describes the network limitation on the 11kV and 22kV distribution network. There is also an emerging network limitation on the Mungerie Park ZS. Capacity at Mungerie Park ZS is forecast to be constrained beyond 2023. Table 3 shows the demand forecast for Mungerie Park ZS and the load at risk.

## Part C: Specification

**Table 3: Mungerie Park ZS Demand Forecast**

Year	Actual			Forecast (MVA)									
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
50% POE	50.5	57.4	74.7	80.8	98.2	106.1	103.7	107.6	110.9	113.8	116.0	117.6	118.8
10% POE	57.1	64.5	84.5	90.6	108.0	115.9	113.5	117.4	120.8	123.6	125.8	127.4	128.6
Firm Capacity	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
Load at Risk <sup>1</sup>	0.0	0.0	0.0	0.0	8.2	16.1	13.7	17.6	20.9	23.8	26.0	27.6	28.8

Note 1: Based on 50% demand forecast

### 4.4.1 Load Transfer and Backup Capacity

The surrounding areas of Box Hill are supplied by 11kV network from Cattai ZS, Windsor ZS, South Windsor ZS, Riverstone ZS, Schofields ZS, Kellyville ZS and Kenthurst ZS.

The three feeders from Mungerie Park ZS supplying the Box Hill Development Area uses 22kV reticulation voltage. Parklea ZS supplies a 22kV catchment area much further south of the Mungerie Park ZS catchment area. However, Parklea ZS has a capacity constraint and is already configured to transfer load to Mungerie Park ZS when required. Therefore, it is not possible to transfer loads from the three 22kV feeders from Mungerie Park to Parklea ZS.

As previously mentioned, the 11kV feeder (A046) from Riverstone ZS supplies a small part of the Box Hill Development Area. There are two zone substations with 11kV feeder ties to Riverstone ZS as shown in Table 4 and Figure 4. However, these 11kV feeders have limited spare capacity. Also, due to its rural overhead construction and distance from Box Hill load centre, offloading to these feeders will result in voltage regulation issues.

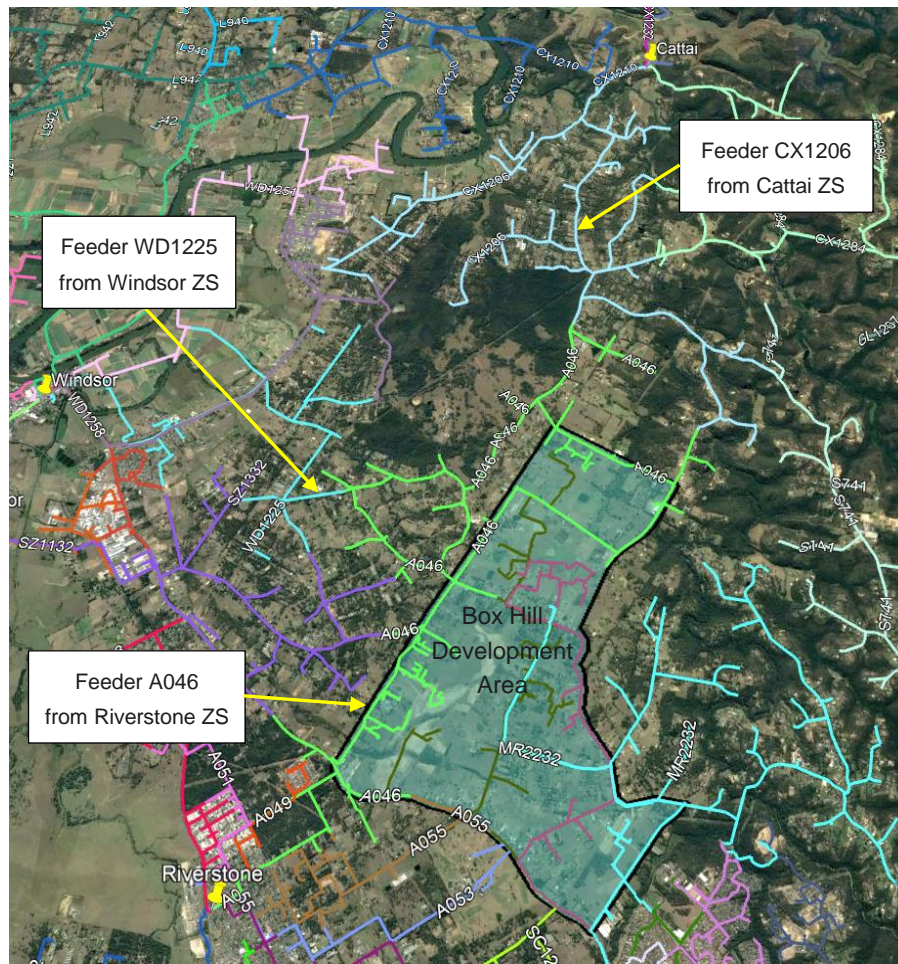
**Table 4: 11kV Backup Network Capacity**

Load Transfer	Load (MVA)	Spare Capacity (MVA)	Voltage Regulation	Comments
From Feeder A046 (Riverstone ZS) to Feeder CX1206 (Cattai ZS)	3.8	0.7	6%	12 km from Box Hill load centre
From Feeder A046 (Riverstone ZS) to Feeder WD1225 (Windsor ZS)	4.1	0.4	4%	10 km from Box Hill load centre

Note: Voltage regulation limits for 11kV (rural) network is 6%

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#### Figure 4: 11kV Feeder Ties to Riverstone ZS



#### 4.4.2 Load At Risk

The forecast load at risk on the three 22kV feeders supplying the Box Hill Development Area is shown in Table 2. This load at risk information is used in Section 6.2 to determine the non-network option objectives. The expected unserved energy from this constraint, being more severe than the network limitation on the Mungerie Park ZS is due to the 22kV network having limited connection and backup capacity which would result in all loads being lost during outage conditions and additional load above network capacity not being able to be connected. The zone substation has full backup capacity and the probability of outage is used to determine expected unserved energy.

## Part C: Specification

### 5. Summary of Credible Network Options

Three network options have been considered to supply the Box Hill Development Area being:

- **Option 1:** Establishment of a 132/22kV zone substation in two stages. The first stage, which will be commissioned in FY2023, includes the establishment of a 45 MVA transformer and a single 132kV feeder. A second 45 MVA transformer and 132kV feeder will be established as part of the second stage to be commissioned in FY2028;
- **Option 2:** Establishment of a two 45 MVA transformer 132/22kV zone substation and two 132kV feeders in FY2023;

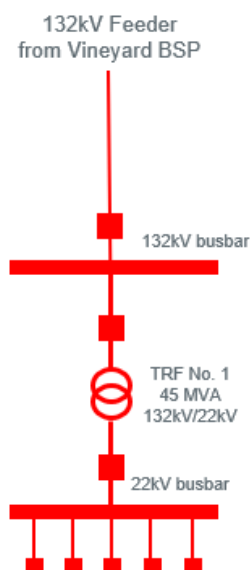
The options are further discussed below.

#### 5.1 Option 1: Establishment of a 132/22kV Zone Substation in Two Stages

This option proposes the establishment of a new zone substation in two stages. The first 45 MVA transformer, supplied by a single 132kV feeder from Vineyard BSP, will be commissioned in FY2023 to provide the first stage of supply to the Box Hill Development Area and will have one section of 22kV circuit breakers. The second 45 MVA transformer and 132kV feeder will be established in the second stage and will be commissioned in FY2028.

Stage 1 of the new zone substation would be constructed over three years (2020/21 to 2022/23). The total cost of this substation is \$44.8 million with \$24.4 million to be incurred in Stage 1 and a further \$20.4 million in Stage 2. The single line diagram for Stage 1 is shown in Figure 5 below. On completion of Stage 2, the single line diagram will be the same as Option 2.

**Figure 5: Single Line Diagram for One Transformer Network Option (Stage 1) for Box Hill ZS**

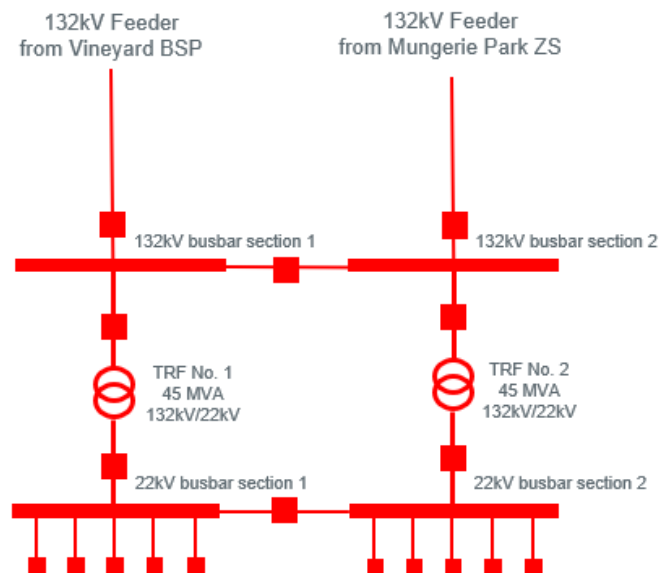


## Part C: Specification

### 5.2 Option 2: Establishment of a Two Transformer 132/22kV Zone Substation supplied by Two 132kV Feeders

This option proposes the establishment of a new zone substation to provide supply to the Box Hill Development Area. This substation will have two 45 MVA transformers, two 132kV transmission feeders and two sections of 22kV circuit breakers. The timing of this substation is 2022/23 constructed over three years (2020/21 to 2022/23). The single line diagram for this network option is shown in Figure 6. The cost of this substation is estimated to be \$44.1 million.

**Figure 6: Single Line Diagram for Two Transformer and Two 132kV Feeder Network Option for Box Hill ZS**



### 5.3 Preferred Network Option

The cost analysis for the two feasible network options is shown in Table 5.

**Table 5: Network Options Summary**

Option	Description	Cost (\$m)	Capacity (MVA)	PV of Costs (\$m)	Year of Future Constraint
1	Establishment of a 132/22 kV zone substation in two stages	24.4 (Stage 1) 20.4 (Stage 2) 44.8 (Total)	90 <sup>1</sup>	35.8	2043
2	Establishment of a two transformer 132/22 kV zone substation	44.1	45 <sup>2</sup>	41.4	2043

Note 1: Installed capacity; Note 2: Firm capacity



## Part C: Specification

Table 5 shows that Option 1 has the least upfront cost and PV of cost. This option involves the establishment of Box Hill zone substation in two stages. The first 45 MVA transformer and a single 132kV feeder will be commissioned in FY2023 with the second 45 MVA transformer and 132kV feeder to be commissioned in FY2028. This is the preferred network option.

### 6. Non-Network Option Development

Endeavour Energy wishes to seek alternative proposals from the market for non-network options that may achieve the network demand reduction, timing objectives and targets. This section describes those objectives and targets that a non-network proposal would need to meet in order to defer or avoid the network limitation and to be considered a credible option.

As can be seen from Table 2, there is load at risk from summer 2022/23 on the 22kV feeders supplying the Box Hill Development Area. As there is very limited back-up supply to the Box Hill development area, the planned commissioning date for the network option aligns with the year of network limitation.

The target area for load reduction is shown in Figure 7. This includes the new development area and the existing customer base supplied by the three 22kV feeders from Mungerie Park ZS. If the existing demand can be reduced and the demand growth can be managed, then the network development could potentially also be managed in a more sustainable way and when absolutely necessary.

There are currently 1,849 residential customers and 153 business customers supplied by the 22kV network within the target area. There is currently 6 MVA of demand on these feeders. The 153 business customers are estimated to contribute about 0.82 MVA to the demand at peak time. These figures are increasing as development continues. The forecast demand on these feeders is shown in Table 7.

#### 6.1 Non-Network Option Objective

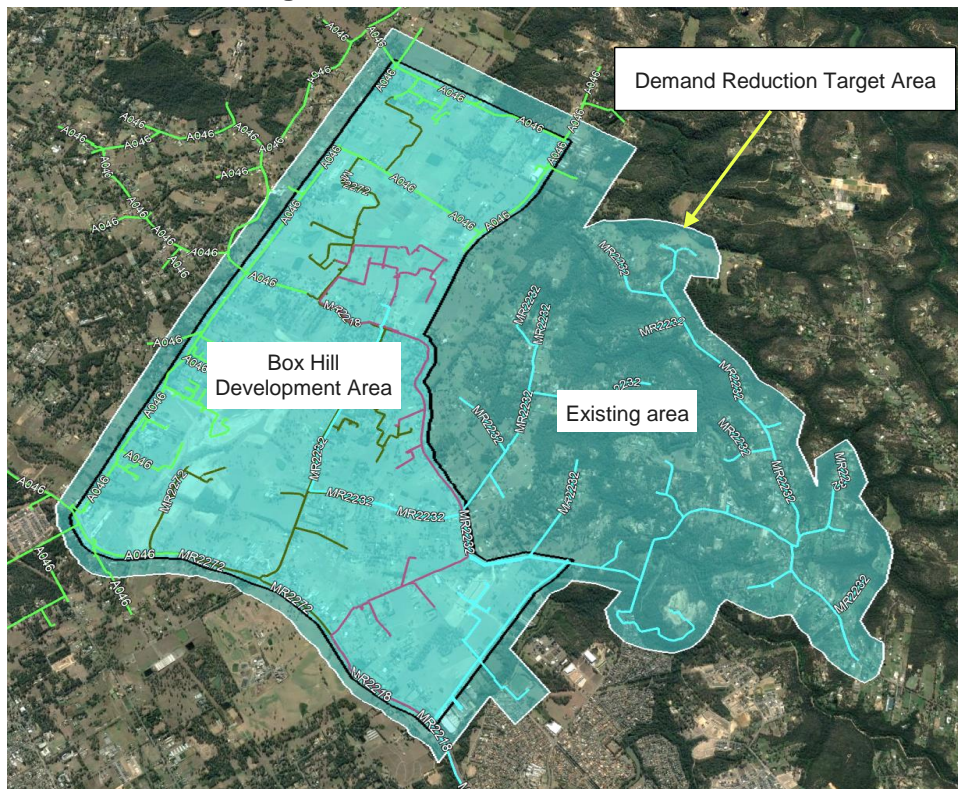
The objective of the non-network option is to obtain sufficient peak demand reduction on the three 22kV network supplying the Box Hill Development Area to manage the load at risk shown in Table 8 to permanently avoid or defer the construction of the Box Hill ZS. A minimum of one year to 2023/24, commissioned prior to summer 2024/25 is sought.

Endeavour Energy will implement cost effective demand reduction initiatives from 2020/21 to manage the expected energy and load at risk commencing from 2022/23 and into 2023/24 to secure a minimum one-year deferral.

The challenge for this project is the load growth from 'greenfield' development areas. A successful non-network option will need to target the new development to ensure the impact on peak demand is minimised. The existing customer base must also be targeted to identify all cost-effective demand reduction. Customer participation in demand management initiatives is also a challenge and service providers would need to assist customers to implement initiatives. Endeavour Energy will work with service providers and customers and will provide assistance to gain customer participation and implementation.

## Part C: Specification

Figure 7: Demand Reduction Target Area



### 6.2 Technical Characteristics of a Non-Network Option

This section sets out the technical characteristics for a non-network option to successfully meet the objectives. The trigger for network investment is not necessarily the load and energy at risk only. However, when identifying options to address the load and energy at risk they would need to successfully eliminate this risk in order to compare options equally.

The technical characteristics include the following:

- Meet the demand reduction levels as detailed in Table 7 from 2022/23 and 2023/24 to achieve a minimum one-year deferral;
- Provide demand reduction conditions as specified in Table 6;
- Provide the level of reliability required by Endeavour Energy, refer section 6.4;
- Address the seasonal Load at Risk, refer Table 8.



## Part C: Specification

### 6.2.1 Conditions and Timing of Demand Reduction

The 'time of day' demand reduction requirement is based on the load profiles shown in Figure 13 which is the load profile for the three 22kV feeders supplying the development area and representative of the load profile of the target area. The load profile peaks in the evening indicating predominantly residential load at its maximum between 3pm to 9pm. It is expected that as development progresses, the 3pm to 9pm residential evening peak will continue to dominate.

**Table 6: Non-network Option Technical Characteristics**

Objective	Target
Time of year	1 November to 31 March 2022/23 1 November to 31 March 2023/24 and 1 June to 31 August 2024 all year round after 1 November 2024
Time of day	3pm to 9pm Summer Period - (refer Figure 13) 6am to 10am and 5pm to 9pm Winter Period - (refer Figure 14) 6am to 10am & 3pm to 9pm every day post 1 Nov 2024 (maximum daily temperature above 30° & below 14°)
Season condition	2022/23 Summer, 2024 Winter, all year round after 1 November 2024
Day type	Days above 30° and Days below 14° - (refer Figure 13 and 14)
Demand reduction required	Refer Table 7 and 8

The annual, summer and winter load profile for the aggregate of the three 22kV feeders supplying the development area is shown in Figures 9, 10 and 11 below. It was found that load profile data for feeder MR2218 on 4th July 2017 and feeder MR2232 on 5th December 2017 is inconsistent with the ambient temperature recorded during that day. This can be identified as the large spikes in demand in Figure 9. Therefore, the maximum demand of 11.32 MVA and 8.31 MVA recorded on 4th of July 2017 and 5th December 2017 respectively, were excluded in the analysis. The maximum demand from the three 22 kV feeders between 1st July 2017 to 30th June 2018 is taken as 5.28 MVA and occurred on 19th December 2017 at 6:15 PM.

The seasonal demand reduction variation shows the existing winter peak demand is about 25% lower than summer and the existing mid-season is about 30% lower than summer. The seasonal demand reduction levels are shown in Table 8.

## Part C: Specification

**Table 7: Box Hill Development Area 22kV Feeder Supply Load at Risk**

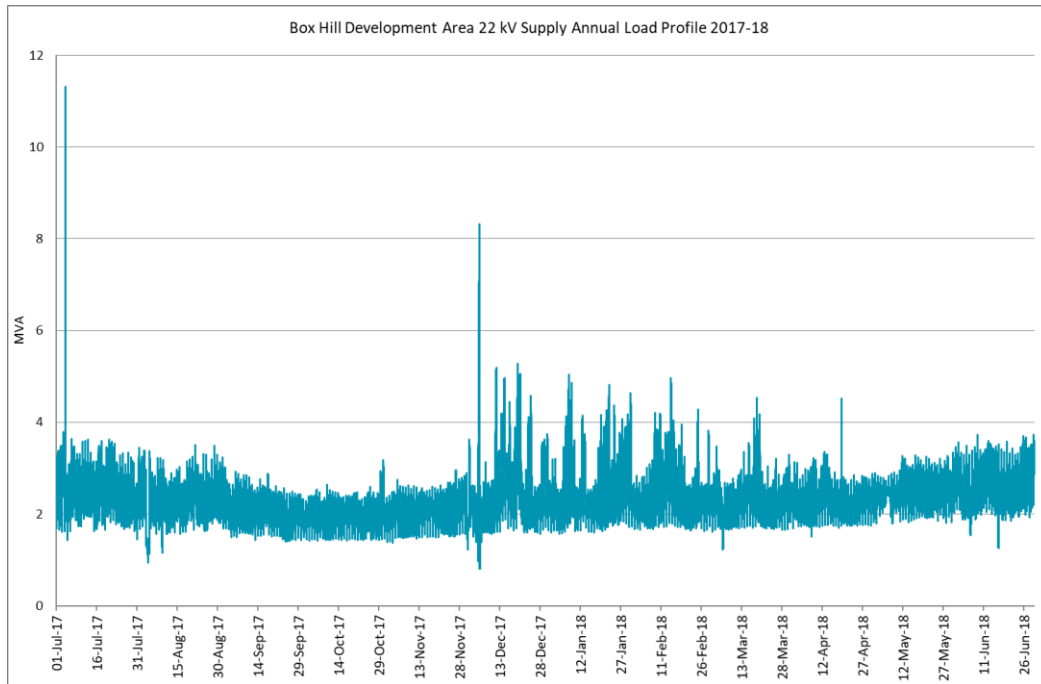
Item	Actual MVA	Forecast (MVA)								
Summer	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Residential Demand	2.0	7.8	11.8	16.0	20.2	24.4	28.6	31.6	33.8	36.0
Commercial / Industrial Demand	0.0	0.0	0.0	0.0	0.0	1.0	2.0	3.0	4.0	5.0
Total Demand Box Hill Development Area	2.0	7.8	11.8	16.0	20.2	25.4	30.6	34.6	37.8	41.0
Existing Area Demand	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
<b>Total Demand</b>	6.0	11.8	15.8	20.0	24.2	29.4	34.6	38.6	41.8	45.0
<b>Capacity (22kV Feeders)</b>	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
<b>Load at Risk</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.4</b>	<b>7.6</b>	<b>11.6</b>	<b>14.8</b>	<b>18.0</b>

**Table 8: Box Hill Development Area 22kV Feeder Supply Seasonal Load at Risk**

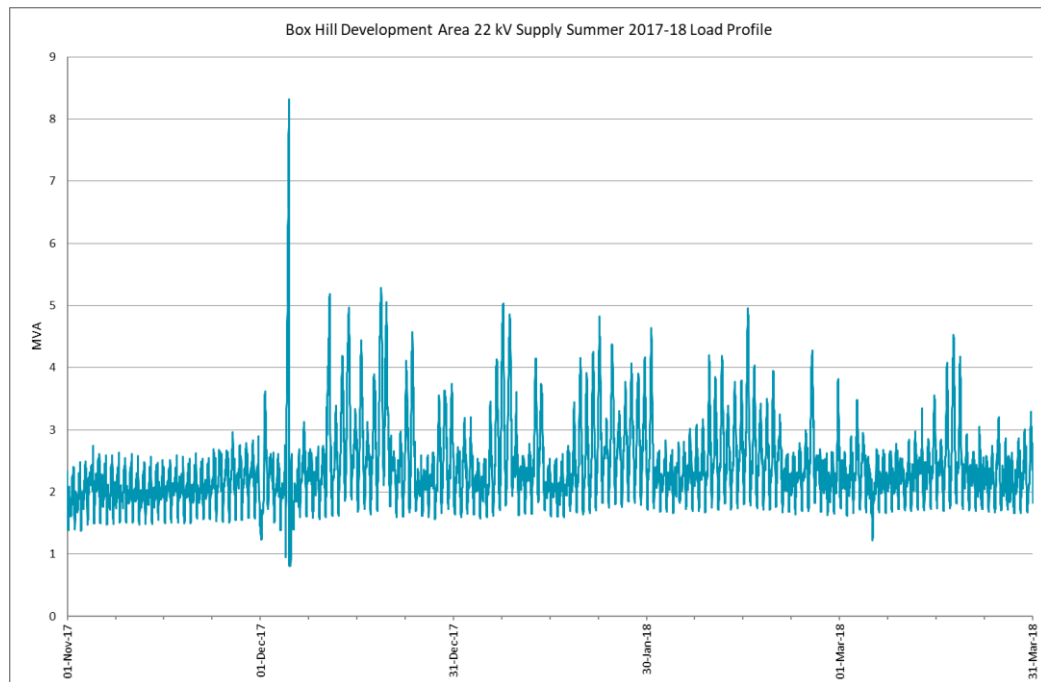
Summer	2019	2020	2021	2022	2023	2024	2025	2026	2027
Summer Demand	11.8	15.8	20.0	24.2	29.4	34.6	38.6	41.8	45.0
Winter Demand	9.0	12.1	15.3	18.5	22.5	26.5	29.5	32.0	34.4
Mid-season Demand	7.9	10.6	13.4	16.2	19.7	23.2	25.9	28.0	30.1
22kV Capacity	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
<b>Load at Risk - Summer</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.4</b>	<b>7.6</b>	<b>11.6</b>	<b>14.8</b>	<b>18.0</b>
<b>Load at Risk - Winter</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.5</b>	<b>5.0</b>	<b>7.4</b>
<b>Load at Risk - Mid-season</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>3.1</b>

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**Figure 9: Box Hill Development Area 22kV Supply Annual Load Profile – 2017/18**

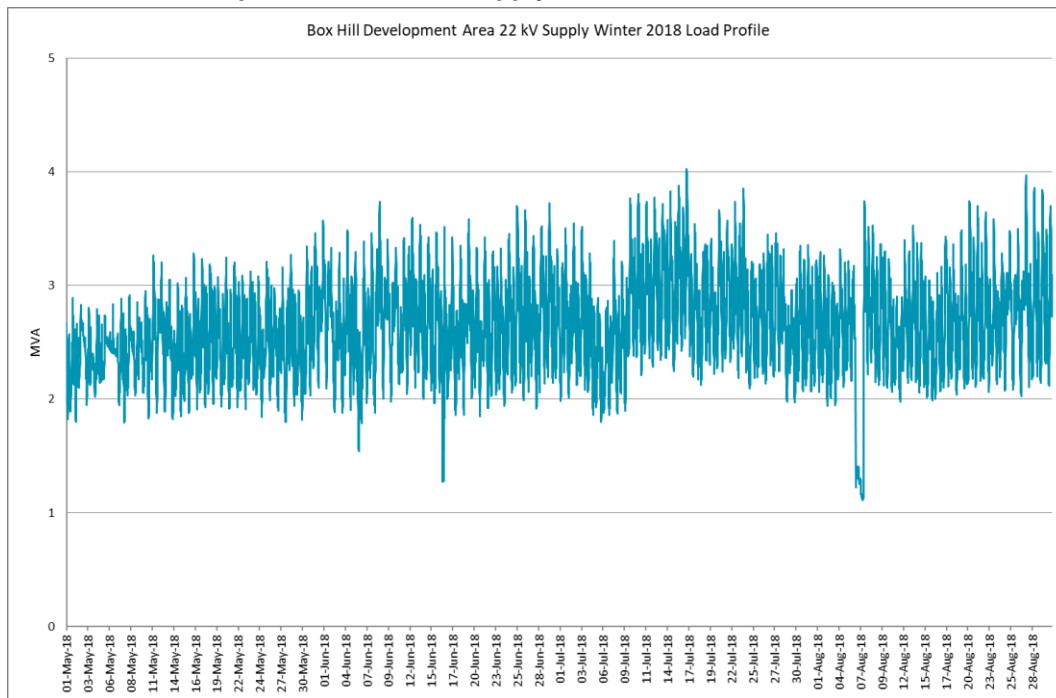


**Figure 10: Box Hill Development Area 22kV Supply Summer 2017/18 Load Profile**



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Figure 11: Box Hill Development Area 22kV Supply Winter 2018 Load Profile



The demand reduction will need to target the 3pm to 9pm peak demands on days above 30 degrees. This demand reduction will need to be initiated up to 6 events on a pre-emptive basis for the 2022/23 summer growing to 27 events by 2023/24.

As the demand reduction requirement increases and moves down the load duration curve, the hours of load above capacity dramatically increase. By 2025/26 the demand reduction requirement is 14.8 MVA with a summer peak demand of 41.8 MVA in the development area, refer Table 8. This indicates that temporary demand reduction initiatives may not be capable of providing the number of events and duration required. Endeavour believes that permanent demand reduction initiatives are more likely to be successful in meeting this demand reduction characteristic and the demand management program objectives particularly from 2023/24 onwards.

The three 22kV feeders supplying the Box Hill Development Area have a total connection capacity of 27 MVA. Non-network solutions must be able to supply the required energy above capacity in order ensure security of supply in the area. Table 9 shows the amount of energy (MWh) required during an event day. In determining these figures, the N-1 capacity is used (not the installed capacity) as demand reduction is required above this figure.

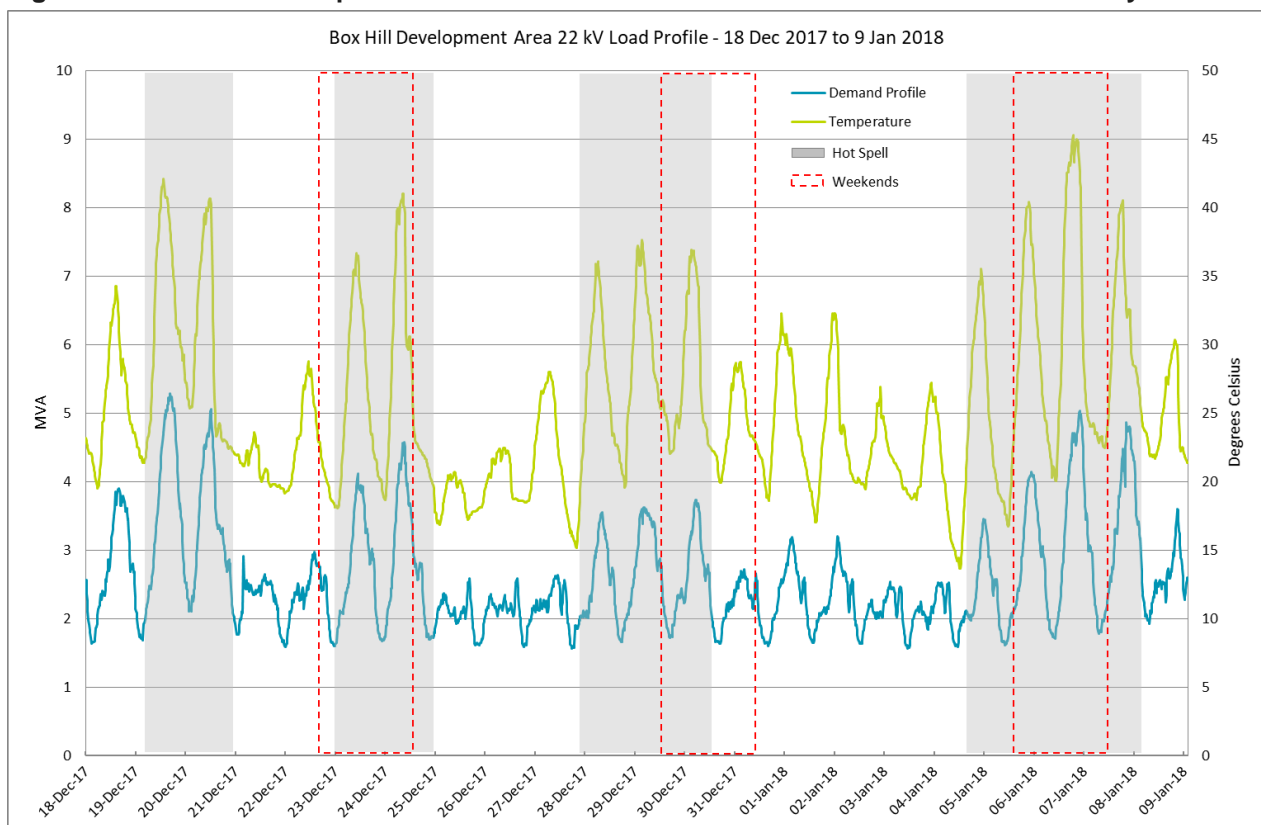
## Part C: Specification

**Table 9: Required energy above capacity during an event day**

	2023	2024	2025	2026	2027
No. of hours above capacity during an event day	2.3 to 5.5	5.8 to 9	7.8 to 10.8	9.5 to 12.8	11 to 13.5
Energy above capacity during an event day (MWh)	2.3 to 7.3	22.9 to 51.6	39.7 to 78.2	62.5 to 110.5	89.3 to 146.4
No. of event days	6	27	61	119	196

The demand follows the temperature very closely, peaking on days above 30 degrees regardless of the day being working or non-working, as shown in Figure 12 below.

**Figure 12: Box Hill Development Area 22kV Load Profile – 18 December 2017 to 9 January 2018**



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### 6.3 Customer Details

The customer details provided in Table 10 represents the existing customers connected to the 22kV feeders from Mungerie Park ZS supplying the demand reduction target area as shown in Figure 8. These customers may be targeted for potential demand reduction opportunities.

The load type split details are based on the 2017/18 recorded summer demand. As can be seen the connected load is predominantly residential. There are 1,849 residential customers and 153 business customers. There are currently no industrial loads in the area. It is estimated that small business customers contribute about 14% of demand at the evening peak.

**Table 10: Customer Numbers and Solar Connections**

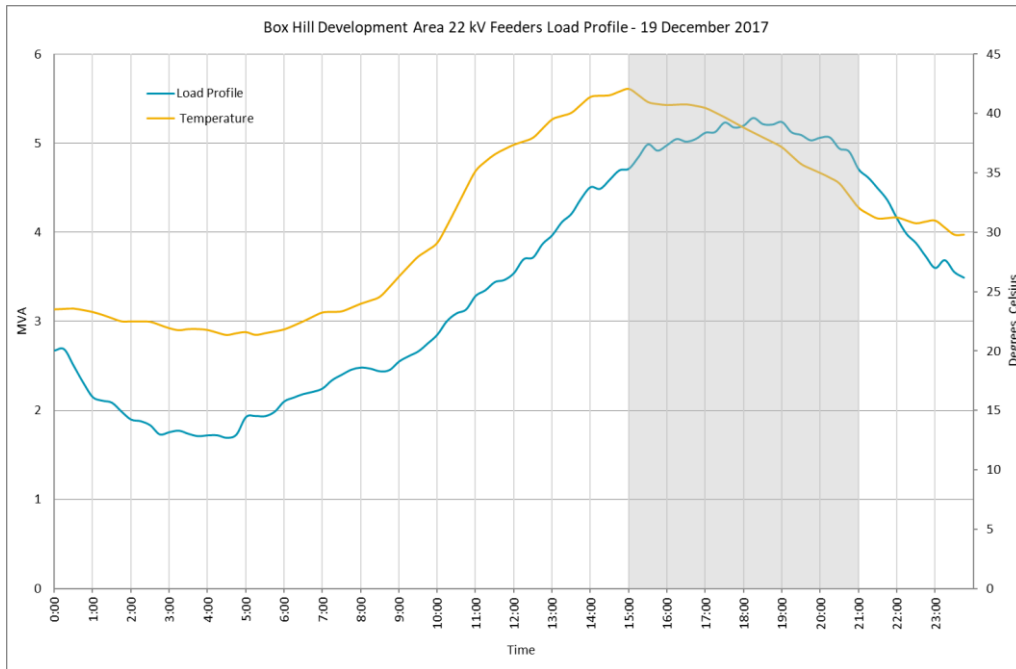
Customer Type	Total Customers	Solar Customers	Demand (KVA)	Percentage
Residential	1,849	168	5.18	86%
Commercial	153	5	0.82	14%
Industrial	0	0	0	0
<b>Total</b>	<b>2,002</b>	<b>173</b>	<b>6.0</b>	<b>100%</b>

#### 6.3.1 Load Profile Characteristics

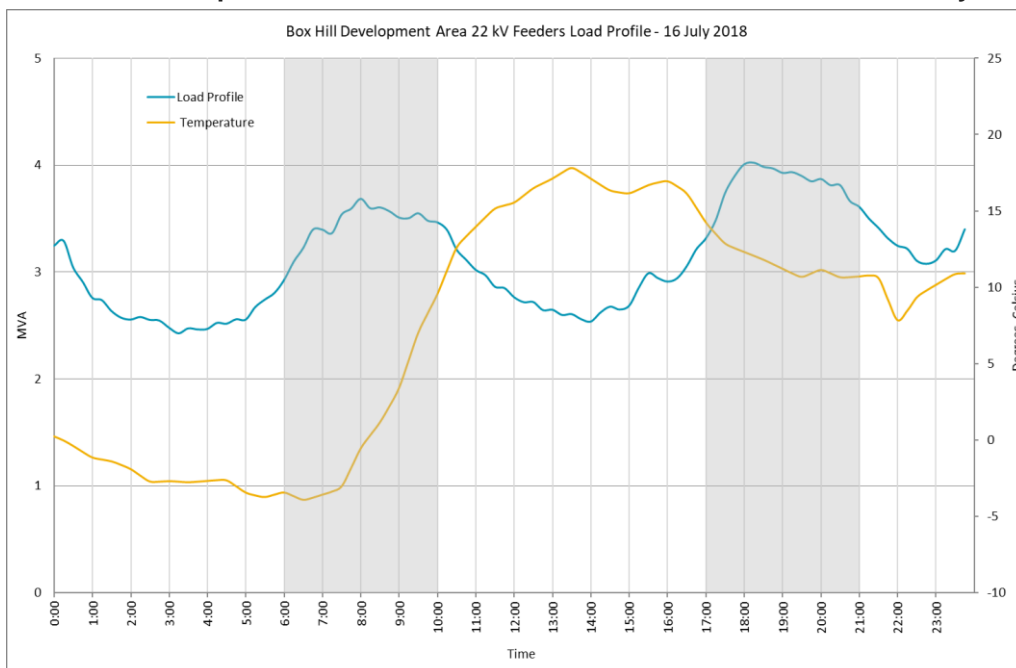
The aggregate summer and winter peak load profiles of the three 22kV feeder supplying the Box Hill Development Area is shown in Figures 13 and 14 respectively. The load type currently connected to these feeders is predominantly rural / residential in nature peaking in the evening. It is expected that as development progresses the residential peak will dominate with the 3pm to 9pm peak increasing in magnitude for both summer and winter.

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**Figure 13: Box Hill Development Area 22kV Feeder Load Summer Peak Profile 19 December 2017**



**Figure 14: Box Hill Development Area 22kV Feeder Load Winter Peak Profile 16th July 2018**





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### 6.4 Reliability

Endeavour Energy operates under the NSW Electricity Licence Conditions and is required to maintain standards for reliability. The licence conditions stipulate the average reliability performance levels that are acceptable for different network supply categories. These are detailed below in Table 11.

**Table 11: Applicable reliability standards**

Feeder/network type	Average reliability duration standards (minutes per customer)	Average reliability interruption duration standards (number per customer)	Equivalent average service availability (% of time)
Urban network (overall)	80	1.2	99.98%
Individual urban feeder	350	4	99.93%
Rural network (overall)	300	2.8	99.94%
Individual rural feeder	1,000	8	99.81%

The option selected to address the network limitation should have adequate availability levels to contribute to maintaining reliability performance within these licence condition requirements.

## 7. Planning Methodology and Assumptions

A core justification for this project is based on load at risk and energy not supplied to customers wanting to connect but unable due to lack of network capacity. This is different to a situation where already connected customers risk losing supply. Arguably, the value that connected customers place on continuity of supply is different to the value that customers waiting to connect will place on having access to supply. However, neither the RIT-D application guidelines nor the AER VCR guidelines provide any guidance on procedures to follow in such greenfield development situations. Hence, a weighted average of the VCRs based on energy contribution of the different load types was used. For a greenfield situation such as this, where the forecast demand rapidly exceeds the available capacity in the network, the VCR benefits to be captured from formulating a project to address network shortfalls can quickly rise to extremely large sums.

### 7.1 Load and Energy at Risk

The base case (do nothing option) results in unserved energy, as shown in Table 12 for the 22kV feeders supplying the development area from Mungerie Park ZS. The figures represent a weighted average of 30% and 70% of the expected unserved energy figures for the 10% PoE and 50% PoE maximum demand forecasts respectively. The development and use of these figures is discussed below.

The energy at risk below the installed capacity is multiplied by the probability of failure of the 22kV distribution feeders. The energy at risk above the installed capacity does not consider the probability of failure as that load cannot be supplied at all.

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**Table 12 – Base Case Risk Exposure – 22kV Network Supply to Box Hill Development Area**

Year	Energy at Risk (MWh) Annual	Hours at Risk	Expected Unserved Energy (MWh)	Value of Expected Unserved Energy (\$'000)
2019/20	0.0	0.0	0.0	0.0
2020/21	0.0	0.0	0.0	0.0
2021/22	0.0	0.0	0.0	0.0
2022/23	15.5	16.0	0.005	0.0
2023/24	193.2	69.0	0.068	0.002
2024/25	558.8	145.0	13.2	489.0
2025/26	990.0	199.3	77.4	2,860.0

### 7.2 Probabilistic Planning

Endeavour Energy applies a probabilistic planning methodology to evaluate the network constraints and value of expected unserved energy in order to determine the appropriate timing for network augmentation projects. Network constraints are analysed in terms of the load at risk, energy at risk and the expected unserved energy over the 10-year planning forecast period. The trigger for network investment is based on a cost benefit analysis and comparing the annualised cost of the preferred network option with the option benefits. Network augmentation is only considered if the option benefit or the reduction in the cost of expected unserved energy outweighs the network augmentation cost required to reduce the unserved energy.

The main requirements driving the construction of the Box Hill ZS are:

- Zone substation capacity;
- Security and quality of supply at the zone substation and feeder level; and
- Exceeding 22 kV feeder design capacity due to progressive customer connections.

The value of expected unserved energy is not used to determine the financial incentive payment for non-network options. This value is determined by the deferral or avoidance value of the capital expenditure.

### 7.3 Energy At Risk

The magnitude of energy at risk annually has been estimated from the annual peak demand forecasts and load duration curves. The energy at risk is considered to be the energy above firm capacity (or above “N-1” capacity). Two components of energy at risk are calculated:

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- a) Energy at risk above “N-1” capacity but below “N” capacity
- b) Energy at risk above “N” capacity.

In the former case, the energy at risk is subject to the probability of an outage occurring. In the latter case, if new connections to the existing network continued to be made, the energy at risk above N capacity simply refers to the energy that cannot be supplied at all during peak periods due to insufficient capacity in the network. Hence in this situation, the expected unserved energy is the total energy at risk.

### 7.4 Expected Unserved Energy

The calculation of the expected unserved energy for the RIT-D analysis is determined by taking a 30% weighting of the unserved energy at the 10% POE maximum demand forecast and a 70% weighting of the unserved energy at the 50% POE maximum demand forecast. This is to account for the uncertainty in the demand forecast and is consistent with practices adopted by AEMO and other distribution network businesses in Australia.

As stated above, all of the energy at risk above “N” capacity is taken to be expected unserved energy. However, where loads are between “N-1” capacity and “N” capacity, the energy at risk is subject to a probability of an outage occurring to determine the expected unserved energy. The calculation of the expected unserved energy for the base case is shown in Table 12 above.

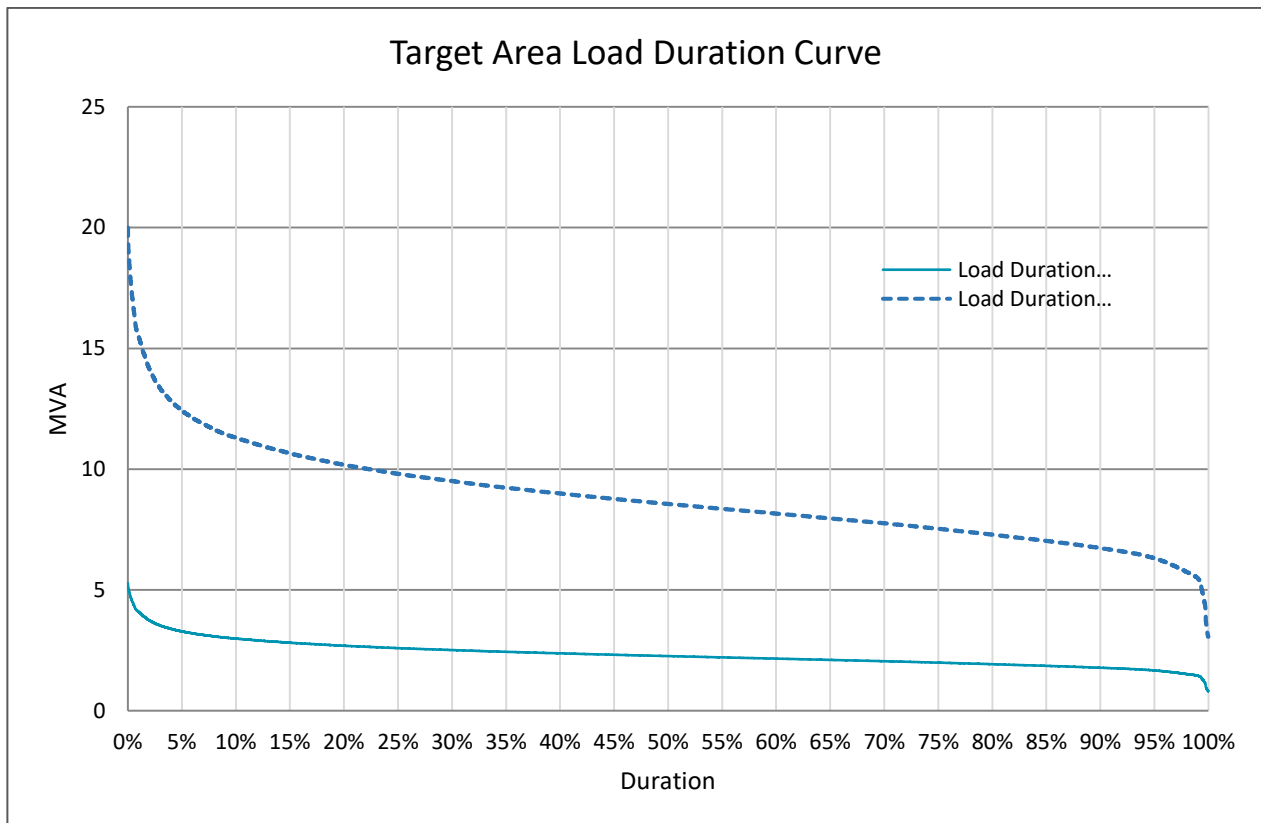
### 7.5 Load Duration Curve

The load duration curve (LDC) for Box Hill Development Area 22 kV feeders for the 2017-2018 year is shown in Figure 15. This curve is primarily influenced by the residential / rural component of demand. The determination of the expected unserved energy is based on this load duration curve.

Due to the initial low level of load and capacity compared with the forecast load increase the energy at risk value under the LDC can increase quickly. Similarly, the hours when capacity is exceeded also increases quickly, as demonstrated by the dotted line in Figure 15.

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Figure 15: Box Hill Development Area 22kV Feeder - Load Duration Curve



### 7.6 Value of Customer Reliability

The value of unserved energy is calculated using the value of customer reliability (VCR). This represents an estimate of the value electricity consumers place on a reliable electricity supply. Endeavour Energy used a VCR of \$32.14 per kWh which is based on the 2019 VCR estimates provided by the AER, weighted in accordance with the composition of the commercial, industrial and residential load within the Box Hill development area. The VCR values are shown in Table 13 below.

Table 13: Value of customer reliability

Load Type	22kV Supply to Box Hill Development Area	VCR (\$ per kWh)
Residential	80%	\$25.85
Commercial	10%	\$44.52
Industrial	10%	\$63.79

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### 8. Financial Modelling

Endeavour Energy is required to ensure investments in the distribution network are prudent with the preferred option being the one that represents the best net economic value that achieves the desired outcome. Endeavour Energy's financial incentive payments for the implementation of demand management initiatives are based on the cost saving from deferring capital expenditure (Avoided Distribution Cost) and addressing the expected load and energy at risk.

A financial evaluation of deferring the construction of the Box Hill ZS Stage 1 (\$24.4 million) for one-year results in an Avoided Distribution Cost (ADC) of \$1.297 million. The expenditure to implement a non-network option will occur over three years from 2020/21 to 2023/24 to achieve a one-year deferral. The maximum financial incentive payment to achieve a one-year deferral equates to \$170 per kVA for permanent demand reduction as a one-off incentive payment based on targeting 7.6 MVA of demand reduction. This represents the maximum amount that would be available as an incentive payment and is dependent on the reliability of demand reduction and other administration costs. This is summarised in Table 14.

**Table 14: Financial Evaluation Summary – Expenditure/Incentive Profile**

Item	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	Comments
Load at Risk	0	0	0	2.4	7.6	11.6	14.8	-
Network Expenditure (\$'000)	0	3,660	10,980	9,760	0	0	0	Total = \$24.4m
One year deferral	0	0	3,660	10,980	9,760	0	0	ADC = \$1.297m
Two year deferral	0	0	0	3,660	10,980	9,760	0	ADC = \$2.512m
Permanent demand reduction (\$/KVA <sup>1</sup> )		170	170	170	170			One-off payment

Note 1: Payments are based on a 7.6 MVA reduction to achieve a one-year deferral

Payments for load curtailment and load shifting programs will be structured differently and based on a kVAh basis. Payments are also based on the reliability level as demand reduction and customer participation to the demand response request. Endeavour Energy will need to be satisfied that customer participation is reliable. As the number of days that exceeds the capacity will be about 27 in 2023/24 Endeavour Energy believes that temporary load reduction in the way of load curtailment is not likely to be feasible. Permanent demand reduction or alternative energy sources are more secure and may attract a higher level of payment.

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Other costs borne by Endeavour Energy in implementing proposals will be factored into the financial evaluation and will impact on the ultimate level of payment offered for demand reduction.

### 9. Proposal Submissions

Endeavour Energy invites submissions from registered participants, interested parties and potential demand management service providers in response to this NNOR. This report is in the form of a "Request for Proposals" (RFP).

Endeavour Energy is seeking proposals that are feasible in achieving the non-network option objectives.

Endeavour Energy requires specific details for each non-network proposal in order to determine its feasibility. Each proponent is to include all information detailed in section 4.3 of the Endeavour Energy [Demand Side Engagement Document](http://www.endeavourenergy.com.au) available from the Endeavour Energy web site [www.endeavourenergy.com.au](http://www.endeavourenergy.com.au). The required information includes:

- Name, address and contact details of the company or person making the submission; and the person responsible for the follow up contact;
- Size, type and location of load(s) that can be reduced, shifted, or substituted;
- Size, type and location of embedded generators that can be used if required;
- Details of equipment, service, technology and any other relevant information describing the demand reduction Service;
- Technical specifications of the service/technology/equipment being offered;
- Time required to implement these measures and any period of notice required before loads can be interrupted or generators brought on-line;
- Total cost to implement these measures and any cost savings that would accrue to the owners/ operators of the equipment. All costs to be included in the Part F - Pricing Sheet;
- The level of contribution or assistance required by the proponent from Endeavour Energy; and
- Other information that would assist Endeavour Energy in investigating an evaluating the non-network option;
- Details of relationships you have with other parties in providing the equipment and/or service including electricity retailer offers;

All costs and payments from Endeavour Energy must be included in the submission. Endeavour Energy understands that different demand management services and products have differing payment and cost structures. This could include, for example, the cost of establishing and operating systems to dispatch and

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monitor interruptible loads or replacing equipment to establish the initiative. Costs borne by customers and others should also be provided as this will provide an indication of the likely take-up rate of the initiative.

It is incumbent on proponents to provide full details of remuneration required and costs to other parties. Any payments or costs that are omitted from the submission may lead to delays or the submission being considered incomplete and not feasible.

Proponents are to provide the requested information and complete the response tables listed in Part F. Proponents may be invited to present their proposals to Endeavour Energy as part of the evaluation process.

### **9.1 Submission Information**

It is important for Endeavour Energy to obtain the full details of the initiative type proposed. Any factors that affect the performance of the technology or initiatives are to be documented as part of the submission. Endeavour Energy may contact proponents to clarify costs or any other information associated with the submission.

Endeavour Energy may also request further information from the proponents to determine the cost of the demand reduction provided by the submission and the risk of delivery and the timeframe for implementation of the non-network options. If Endeavour Energy receives multiple submissions based on the same or similar technology it may seek information from the proponents to allow for the evaluation and differentiation of the submissions.

Each initiative proposed is to include the information specific to the proposal. An indication of the information required is detailed below but is not intended to be an exhaustive list. Any relevant information associated with the initiative should be included in the proponent's submission.

#### **9.1.1 Embedded Generation**

If the proposal is an embedded generation service, including any form of battery energy storage system, the following information is to be provided if appropriate:

- a) Specify the embedded generation type and fuel source;
- b) Specify the number of units and unit sizes;
- c) Specify the approval process and the relevant approvals required to install this type of embedded generation;
- d) Specify the reliability of the embedded generator(s);
- e) Specify the availability of generation of the embedded generator(s);
- f) Specify the location(s) of the embedded generator(s);
- g) Specify the proposed connection point(s) and voltage for this type of embedded generation;



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- h) Provide details of connections applications made in relation to the embedded generation;
- i) Specify the expected contribution in fault level arising from the embedded generation at each connection point, if known;
- j) Specify any particular commissioning requirements for the embedded generator(s);
- k) Specify any particular installation requirements for the embedded generator(s);
- l) Specify how you proposed to verify demand reduction from the embedded generator(s);
- m) Specify any equipment delivery requirements for this type of embedded generator(s);
- n) Specify the dispatch process for using the embedded generator(s) for demand reduction. State what is the minimum notification required from Endeavour Energy and how will notification be conducted;
- o) Specify any alternate uses for the embedded generator or battery energy storage system that may compete with or potentially interfere with the services proposed;
- p) If the proposed solution involves a battery energy storage system, specify the charging profile (demand and time of day);
- q) Proposed cost structure refer Part F-Pricing Sheet; and
- r) Any other relevant information.

### 9.1.2 Aggregation Service

If the proposal is an aggregation service, the following information is to be provided if appropriate:

- a) Specify the type of load being aggregated, for example, energy storage/solar panels, air conditioners or voluntary load curtailment within the residential or industrial/commercial sector, etc;
- b) Specify the customer/sector type, such as residential or industrial/commercial targeted for aggregation;
- c) Specify the communication system used for demand reduction to the site and the communications within the site to the appliance or to the customer being notified to perform the load curtailment action;
- d) Specify the demand response event process. What is the minimum notification required from Endeavour Energy, how is notification to be conducted, how is the customer to be notified, are there any other specific steps that needs to be taken;
- e) Specify how you propose to verify demand reduction from the aggregation service, is there any specific metering required, are there calculations that need to be undertaken to determine the demand reduction;
- f) Specify how many customers you have signed up for demand reduction. Indicate the demand reduction level expected from each customer, how reliable is the demand reduction from each customer;

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- g) Specify how many more customers you expect to sign up for demand reduction;
- h) Specify how you intend on recruiting the customers;
- i) Specify how much demand reduction you can deliver from commencement of the program;
- j) Provide details of the service and offer made to the Customer for recruitment;
- k) Proposed cost structure refer Part F-Pricing Sheet; and
- l) Any other relevant information.

### 9.1.3 Energy Management Service

If the proposal is an energy management service, the following information is to be provided if appropriate:

- a) Specify your expertise in conducting energy audits, the type and level of audits you are able to provide;
- b) Provide a sample energy audit report for each level type you have produced for a customer;
- c) Indicate the types of initiatives you expect to identify in the target area made up of commercial, industrial and residential customer;
- d) Specify how you propose to encourage the customer to implement the identified initiatives;
- e) Specify how much demand reduction you believe you can deliver in the target area
- f) Specify how you propose to verify demand reduction, is there any specific metering required, are there calculations that need to be undertaken to determine the demand reduction;
- g) Provide details of the customer recruitment process to enrol the Customer onto the Program;
- h) Proposed cost structure refer Part F-Pricing Sheet; and
- i) Any other relevant information.

### 9.1.4 Technology/Equipment Provider

If the proposal is a technology or equipment, the following information is to be provided if appropriate:

- a) Specify the technology/equipment you are providing;
- b) Specify the customer type targeted for this technology/equipment;
- c) Specify how much demand reduction you can deliver from the technology/equipment;

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- d) Specify how many customers in the target area that your technology/equipment may be installed;
- e) Specify the penetration rate you can achieve from your technology/equipment and demonstrate where it has been achieved in other areas;
- f) Specify if the demand reduction is permanent or temporary (load shedding/curtailment);
- g) Specify how to enact load reduction and demand response event if it is a temporary demand reduction technology;
- h) Specify the reliability of the technology/equipment;
- i) Provide details of the customer recruitment process to enrol the Customer onto the Program;
- j) Specify your expertise in providing the technology/equipment;
- k) Specify how you propose to verify demand reduction;
- l) Proposed cost structure refer Part F-Pricing Sheet; and
- m) Any other relevant information.

### 9.2 General Information Required

Proponents need to consider the following when preparing submission for non-network services:

- Proposals for specific initiatives are to include details of achievable peak demand reductions. This is defined as the minimum amount by which demand is reduced below “business as usual” over the full time period the demand reduction is required.
- In the case of proposals using HVAC or other temperature related loads, the reduction should be calculated under “30 degree day” conditions for Western Sydney.
- In the case of interruptible loads, or embedded generators, the period of demand reduction called upon by Endeavour Energy may vary but should be available for the full period of the requested demand reduction. Any limits in the number of times the initiative can be called should be clearly stated in the proposal.
- Embedded Generation or stand-by generation proposals should indicate if the proposed mode of operation is in parallel with the Endeavour Energy network or isolated, and what impact this will have on the customer.

### 9.3 Program Delivery

Proponents must demonstrate in Part F that they have the capability and capacity to deliver demand management services to Endeavour Energy as per their proposal. This would normally include addressing issues such as:

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- Experience in designing, implementing and operating equipment and systems,
- Experience and qualifications of key personnel,
- Experience or understanding of contractual and other commercial structures proposed,
- Management, financial, technical, quality, IT and human resources, systems capable of delivering proposed measures as specified and customer management skills, and,
- Referrals from previous customers for similar services.

Proponents should identify the likely sites where a particular technology or service may be feasible. Endeavour Energy may provide assistance in approaching customers to determine the feasibility of the proposal.

### 9.4 Evaluation and Selection Criteria

The following factors will form the basis of the criteria used in the evaluation process. Proponents should note that the criteria listed below are not in any particular order and are not necessarily exhaustive.

- Experience in delivering the service and/or initiative;
- Timing in delivering the service and/or initiative;
- Meeting demand reduction requirements and objectives;
- Cost effectiveness in providing demand reduction;
- Reliability of the initiative in providing peak demand reduction

A response does not need to deliver all demand reduction on its own. Endeavour Energy may consider aggregation of options to meet the overall demand reduction target. However, each proposal needs to be cost-effective in its own right.

### 9.5 Compliance with Technical Standards

Proposals must comply with all relevant electrical, building, safety, environmental and other standards. This is important in the case of embedded generation (and stand-by generation) options, which must not result in harmonics, voltage fluctuations or other impacts beyond the specifications provided by Endeavour Energy. Studies may need to be conducted to provide proof where requested by Endeavour Energy.

Proponents must also address EPA, local council and other approvals or licences required in the case of proposals using generation.

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## **9.6 Measurable and Verifiable**

Endeavour Energy needs to accurately quantify the amount by which demand is reduced in order to determine the impact on peak demand, or to utilise dispatchable demand reductions to meet capacity constraints.

Proponents must indicate how they propose to measure, estimate or otherwise quantify the size of demand and energy reductions actually achieved. Methodologies as described in the International Performance Measurement & Verification Protocol (IPMVP) or similar should be used.

## **9.7 Additional**

Proponents must demonstrate that measures are beyond what would have occurred under “business as usual” and initiatives carried out prior to this NNOR will not be considered (as they are by definition “business as usual”).

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- **Part D: Supplier Evaluation Questionnaire (SEQ)**

## **Part D: Supplier Evaluation Questionnaire (SEQ)**

Endeavour Energy Network Operator Partnership is committed to engaging suppliers that align with its values and meet high standards of capability, performance, quality, work health and safety, risk and environmental management. To this end, we have a program in place to assess suppliers for their eligibility to supply us with goods and services.

This Supplier Evaluation Questionnaire (SEQ) forms part of our supplier assessment process and will be completed by the successful Proponent before contract award

All successful Proponents that Endeavour intends to negotiate an agreement will be required to complete a Supplier Evaluation Questionnaire (SEQ). This will need to be completed by the successful Proponent before a contract is awarded.

All information provided in the completed SEQ will remain confidential and the outcome will be made available to Endeavour Energy employees only. The outcome of the assessment process will be determined from information supplied and from information available in the public domain.

**Please find attached RFP NNOR008BOX-A - Part D (SEQ Response) to complete the Supplier Evaluation Questionnaire.**

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- **Part E: Agreement**

## **Part E: Agreement**

Endeavour Energy Supply Agreement (attached)



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- **Part F: Proposal Response Tables**

## Part F: Proposal Response Tables

Section	Content	Proponent Required to Respond
Introduction	Instructions on how to complete the Response Tables.	No, for information only
Compliance to RFP document	Proponents must complete all sections	Yes, all Proponents
Compliance to Specification	Proponents must confirm their compliance to the Specification as detailed by the company in <b>Part C</b> .	Yes, all Proponents
Pricing Sheet	Sheet where Proponents outline their pricing as per the Specification.	Yes, all Proponents

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- **Part G: Schedule of Documents**

**Part G: Schedule of Documents**

Proponents are to acknowledge receipt of documents by indicating ‘Yes’ or ‘No’ and listing all addendum received in the table below, signing this Part G and submitting with the Proposal.

Document	Details	Receipt Acknowledged (Yes/No)
General terms and conditions of the RFP	Part A of this RFP	
Form of Proposal	Part B of this RFP	
Specification	Part C of this RFP	
Supplier Evaluation Questionnaire	Part D of this RFP	
Agreement	Part E of this RFP	
Proposal Response Tables	Part F of this RFP	

Signed: .....

Name and Organisation: .....

Date: .....

**Produced by Asset Planning & Performance branch**

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