

# Non-Network Options Report

## Request for Information

### South Marsden Park Zone Substation

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**Part A: Technical Requirements**

**Part B: Non-Network Options Report (NNOR) General Terms**

**Part C: Response and Pricing Tables (Excel File)**

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## PART A: TECHNICAL REQUIREMENTS

### OVERVIEW

Endeavour Energy is one of NSW's largest state-owned energy corporations, distributing electricity network and value-added services to 951,804 customers, or 2.3 million people, in households and businesses across a network franchise spanning 24,500 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 the North West and South West priority growth areas of Sydney, established in 2005 to accommodate 500,000 new residents over 30 years as well as the Broader Western Sydney Employment Area. These priority growth areas are the result of the biggest coordinated land release in NSW's history.

We are preparing to meet this extra growth and maintain existing services by investing responsibly and efficiently in our network. This requires the identification of the most effective solution that addresses emerging network issues and maximises present value of the net economic benefit to all players in the National Electricity Market (NEM). This means investigating all options including non-network options, such as embedded generation or demand management. The identification of these types of initiatives requires effective engagement of non-network service providers. This report provides non-network respondents and interested parties the opportunity to submit proposals that will address non-network option objectives and offer cost effective alternatives to enhancing the network to meet future demand in the Marsden Park Industrial precinct.

The Marsden Park Industrial precinct is currently experiencing significant development. The precinct is located within the North West Growth Centre and is designated to contain a total of 316 hectares of commercial, bulky goods retail and industrial land as well as 1,200 dwellings. Once fully developed, the precinct will create approximately 10,000 jobs, house 3,500 people and place an estimated 50 MVA of demand on the network over 20 years. South Marsden Park ZS (stage 1) was constructed as an interim substation with a 15 MVA transformer and a single 132 kV subtransmission feeder to supply the recently released Marsden Park Industrial precinct

South Marsden Park ZS, being a single transformer and 132kV feeder substation, has limited back-up supply on loss on either of these two network elements. The limited back up is via the 11kV network from the surrounding zone substations. This 11kV back-up capacity is becoming restricted as the developments on the surrounding zone substations continue to expand. The Marsden Park Industrial precinct load growth is expected to average around 3 MVA per year for the next twelve years. However, unlike residential subdivisions where load growth is incremental, the industrial precincts can experience significant increases in load growth in a single year depending on the size and nature of industrial customers coming on line.

There are network constraints on both the South Marsden Park ZS and the 11kV network supplying the Marsden Park Industrial Precinct as the available 11kV back-up capacity from the adjacent zone substations diminishes. Analysis has identified that there is insufficient back-up capacity available to supply the industrial precinct under outage conditions from 2018/19. The current estimate of the Base Case (or 'do nothing' option) would lead to unserved energy to customers of \$6.0 million by 2020/21.

This document details the network limitation on the South Marsden Park ZS and outlines the feasible options to address the limitation. Two network options have been identified:

1. Augment South Marsden Park ZS with two 45 MVA transformers and construct a second 132kV feeder; and
2. Augment South Marsden Park ZS with one 45 MVA transformer and construct a second 132kV feeder but use it at 11kV until demand warrants the second transformer and 132kV feeder.

Network option 1 is the preferred option as it caters for the long-term growth in the area and provides 'N-1' security of supply to the Marsden Park Industrial precinct and delivers the highest economic NPV. Our initial indicative estimates of deferring the preferred network option for one year and targeting the required demand reduction would result in a payment for demand reduction of \$100 per kVA.

The purpose of this report is to identify credible non-network options that may provide a more cost effective solution. This report provides the technical characteristics that a non-network option is to meet in addressing the peak demand. Endeavour Energy requires sufficient detail in the non-network option submission in order to properly evaluate and compare all options equally. Endeavour Energy welcomes questions from respondents in order to assist the development of a complete submission. Endeavour Energy may seek clarification from Respondents where information provided is not clear or is incomplete.

To comply with the Regulatory Investment Test – Distribution (RIT-D), Endeavour Energy will issue a Draft Project Assessment Report (DAPR) detailing the preferred option. If a non-network option is preferred, or part of the preferred solution, Endeavour Energy may enter into a procurement activity to secure non-network services. Endeavour Energy may consider multiple non-network options in order to achieve the overall demand reduction targets required for South Marsden Park. Initiatives must be cost-effective in their own right and will be ranked from the most cost-effective to the least.

Information on providing a non-network option submission is included in section 8 of Part A and section 4.1 of Part B of this report.

# 1 INTRODUCTION

## 1.1 PURPOSE

Endeavour Energy has prepared this Non Network Options Report in accordance with the requirements of section 5.17.4 of the National Electricity Rules (NER) and operates in accordance with the Regulatory Investment Test for Distribution (RIT-D). 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 \$5 million. As part of the RIT-D process, distribution businesses must also 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. Where it is determined to be feasible the distribution business must publish a Non-Network Options Report (NNOR) as part of the RIT-D consultation procedures. Endeavour Energy is seeking to obtain submissions from the market to investigate non-network alternatives to manage the load at risk. While it is acknowledged that it is inherently difficult to secure demand reduction in 'greenfield' development sites, Endeavour is seeking to provide the market an opportunity to identify and submit feasible non-network options, particularly in light of the high number of 'greenfield' developments occurring in the North and South West Growth Sectors.

## 1.2 OBJECTIVE

South Marsden Park ZS (stage 1) was constructed as an interim substation with a 15 MVA transformer and a single 132 kV subtransmission feeder to provide initial supply to the Marsden Park industrial development area. The ultimate design of the substation is to contain two 45 MVA transformers supplied by two 132kV feeders.

The South Marsden Park ZS is expected to experience load at risk and unserved energy from summer 2018/19. The preferred network option to address this risk has a program completion date of (post summer) 2019/20 due to the construction lead-time. This means that there is unserved energy and load at risk for 2018/19 and 2019/20 until the network option is commissioned.

The objective of the non-network option is to obtain sufficient demand reduction to defer the proposed network option for a minimum of one-year. Endeavour will consider implementing demand reduction initiatives for 2018/19 and 2019/20 to manage the expected energy and load at risk if sufficient demand reduction cannot be provided to defer the network option. Endeavour is willing to implement demand management initiatives where cost-effective.

The challenge for this project is that the load growth is from 'greenfield' development areas. It is inherently difficult to obtain sufficient demand reduction from the existing customer base, which tends to be small in comparison to the ultimate numbers in the development area. Opportunities for demand reduction should focus on the developing areas. Endeavour Energy is keen to identify opportunities for demand reduction in 'greenfield' development areas as the majority of demand growth in Endeavour Energy's network area is from these new release areas.

This report provides interested parties and demand management services providers with the appropriate information to make submissions for non-network options. This process provides an opportunity for all parties to consider how they could address the identified need on the network and make a submission.

This NNOR:

- provides the background information on the network capacity limitations;

- details the demand forecast for the South Marsden Park ZS and surrounding distribution network;
- describes the credible 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; and
- seeks submissions from interested parties and non-network service providers on credible non-network options for reducing peak demand on the network.

## 2 BACKGROUND

The North West Sector falls within the boundaries of three local government areas of The Hills, Blacktown and Hawkesbury and is comprised of 16 precincts. This sector is experiencing significant growth due to the newly released residential and industrial precincts as per the Department of Planning and Infrastructure’s release plan. The North West Growth Centre comprises of approximately 10,000 hectares and will contain about 70,000 new dwellings for an expected population of 200,000 people, refer to Map 1 – North West Growth Centres.

In addition to this, the Department of Planning and Infrastructure has rezoned Marsden Park Industrial precinct under the Growth Centres Precinct Acceleration Plan (PAP). As a condition of the PAP, the developer has agreed to fund the Precinct’s planning of the future urban development to accelerate the release of the area for development. This type of development tends to result in fast tracked land development and lot releases.

The developments in the Marsden Park Industrial and surrounding precincts are shown in Table 1 and the Marsden Park Industrial precinct is shown on Map 2. The surrounding precinct release areas are also shown to provide full details of the entire area load growth and the need to ensure that the load growth is serviced in a coordinated and staged fashion.

**Table 1 – Marsden Park Industrial and Surrounding Precincts Planned Development**

Precinct	Dwellings	Employment Capacity	Status	Zone Substation Supply
Marsden Park	10,300		Construction Underway	Marsden Park ZS
Marsden Park North	4,000		Released for Planning 2014	Marsden Park ZS
Marsden Park Industrial	1,200	10,000 jobs	Construction Underway	South Marsden Park ZS
Riverstone West	0	12,000 jobs	Construction Underway	Riverstone ZS / Schofields ZS
Schofields	2,950		Construction Underway	Schofield ZS
Colebee	1,000		Construction Underway	South Marsden Park ZS / Rooty Hill ZS
West Schofields	2,000		Released for Planning 2016	South Marsden Park ZS / Schofields ZS
Shanes Park	500		Yet to be Released	To be determined

The Marsden Park Industrial precinct is currently experiencing significant development. The precinct is located within the North West Growth Centre and is designated to contain a total of 316 hectares of commercial, bulky goods retail and industrial land as well as 1,200 dwellings. Once fully developed, the





### 3.2.1 ZONE SUBSTATION CAPACITY

#### South Marsden Park ZS

The existing capacity of this substation is insufficient to cater for the growth in the Marsden Park Industrial precinct, as shown in Table 3. As mentioned previously, this precinct is estimated to place up to 50 MVA of demand on the existing network over a 20-year period.

In addition, an interruption of the radial 132kV supply to the ZS or the single 15 MVA transformer would result in loss of supply to most customers owing to the limited back up supply via the 11kV network from surrounding zone substations. The South Marsden Park 11kV feeders will be developed to meet the growing demand shown in Table 3.

#### Marsden Park ZS

The Marsden Park ZS (stage 1) was constructed with a single radial 132kV transmission supply from Vineyard BSP and a single 45 MVA transformer. This ZS is expected to cater for 10,300 dwellings in the Marsden Park precinct and up to 4,000 dwellings in the Marsden Park North precinct. The total demand of these developments is expected to be in excess of 60 MVA over the next 10 to 15 years.

Upon the failure of the transmission supply or the single transformer, the available 11kV back-up capacity from surrounding zone substations is around 10 MVA. This restricts the ability of Marsden Park ZS to off-load South Marsden Park Zone Substation.

### 3.2.2 LOAD TRANSFER AND BACKUP CAPACITY

The Marsden Park Industrial Precinct is primarily supplied from the single transformer South Marsden Park ZS. The 11kV network back-up supply from Marsden Park, Schofields and Rooty Hill Zone Substations. The amount of spare capacity is dependent on the pace of development in the surrounding precincts as capacity is depleted. The available 11kV network back-up capacity over the next few years to supply this precinct is shown below in Table 2. The spare capacity shown in 2017 is primarily from the Marsden Park ZS. This capacity shows an increase in 2018 but then reduces due to ongoing developments in the surrounding precincts. It should be noted that using the spare 11kV capacity to supply the load growth removes the ability to provide back-up supply on loss of the single transformer and single 132kV feeder at South Marsden Park ZS as can be seen by the reducing back up 11kV capacity in Table 2.

**Table 2 – Back-Up 11kV Capacity for Marsden Park Industrial Precinct**

Item (MVA)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Back-Up 11kV Capacity	11.3	12.9	11.1	9.1	7.8	7.1	7.1	7.1	7.1	7.1	7.1	7.1

Developing additional 11kV feeders from the other surrounding zone substations is not possible due to the limited capacity of the surrounding zone substations and the voltage drop issues arising from the long distance of the load centre to the substation.

### 3.3 LOAD FORECAST

Supply to the Marsden Park Industrial precinct development is currently shared between South Marsden Park, Schofields and Rooty Hill ZSs.

The forecast for South Marsden Park ZS is shown in Table 3. Shown is the summer forecast contained in Endeavour Energy's 2016 Distribution Annual Planning Report (DAPR) plus the recent load applications submitted since the release of the official forecast to produce the revised load forecast. This forecast will be used to identify network limitations and developing credible options.

**Table 3 – South Marsden Park ZS Summer Demand Forecast**

Item (MVA)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016 Forecast	4.2	7.6	8.1	9.7	11.4	12.7	14.2	17.0	19.2	21.4
Recent Applications	2.1	4.3	6.9	8.5	9.5	10.9	12.1	12	12.5	13.1
Revised Load Forecast	6.3	11.9	15.0	18.2	20.9	23.6	26.3	29.0	31.7	34.5
Installed Capacity	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
<b>Load At Risk (N)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3.2</b>	<b>5.9</b>	<b>8.6</b>	<b>11.3</b>	<b>14</b>	<b>16.7</b>	<b>19.5</b>

### 3.4 LOAD AT RISK (N-1)

A review was conducted to determine the existing demand on the network supplying the Marsden Park Industrial precinct and the firm capacity available to supply the demand. This is to estimate the load at risk under contingency conditions to be addressed to defer a network limitation. This is shown in Table 4.

The total available firm capacity, which is the capacity available under 'N-1' condition, is used to determine the level of load at risk. As previously mentioned, there is limited 11kV back-up capacity available under fault conditions (132kV feeder or transformer outage). The network is generally required to be augmented when the load at risk and the expected unserved energy reaches unacceptable levels.

**Table 4 – South Marsden Park Load at Risk (N-1)**

Item (MVA)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
South Marsden Park ZS Demand Forecast	6.3	11.9	15.0	18.2	20.9	23.6	26.3	29.0	31.7	34.5
11kV Back-up Capacity	11.3	12.9	11.1	9.1	7.8	7.1	7.1	7.1	7.1	7.1
<b>Load At Risk (N-1)</b>	<b>0.0</b>	<b>0.0</b>	<b>3.9</b>	<b>9.1</b>	<b>13.1</b>	<b>16.5</b>	<b>19.2</b>	<b>21.9</b>	<b>24.6</b>	<b>27.4</b>

The above analysis shows that there are network constraints on both the South Marsden Park ZS and the 11kV network supplying the Marsden Park Industrial Precinct as the available 11kV back-up capacity from the adjacent zone substations diminishes. This means there is insufficient back-up capacity available to supply the industrial precinct under outage conditions from 2018/19.

Exceeding the firm capacity of a ZS does not necessarily trigger network investment alone. It involves an assessment of the probability of failure and the consequence in the event of failure including the expected outage duration and expected unserved energy, refer section 4.3.

The base case (do nothing option) results in a significant amount of unserved energy, as shown in Table 5. The figures represent a weighted average of 30% and 70% of the 10% and 50% expected unserved energy figures. The development and use of these figures is discussed below in section 4 – Methodologies and Assumptions.

**Table 5 – Base Case Risk Exposure**

Year	Energy at Risk (MWh) Annual	Hours at Risk 50% POE	Hours at Risk 10% POE	Expected Unserved Energy (MWh)	Cost of Expected Unserved Energy (\$'000)
2017/18	2,211	1633	1,920	4.8	186
2018/19	7,246	3075	3,153	15.7	610
2019/20	14,421	4366	4,455	32.9	1,278
2020/21	21,793	5510	5,557	153.3	5,958

## 4 METHODOLOGY AND ASSUMPTIONS

### 4.1 PROBABILISTIC PLANNING

Endeavour Energy applies a probabilistic planning methodology to evaluate the network constraints to determine the appropriate timing of network augmentation. 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. Network augmentation is only considered if the 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 augmentation of the network for the South Marsden Park Zone Substation are:

- Security of supply at sub-transmission level;
- Security of supply at the zone substation level; and
- Exceeding network capacity.

### 4.2 ENERGY AT RISK

The Energy at Risk 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:

- 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 due to insufficient capacity in the network. Hence in this situation, the expected unserved energy is the total energy at risk.

### 4.3 EXPECTED UNSERVED ENERGY

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

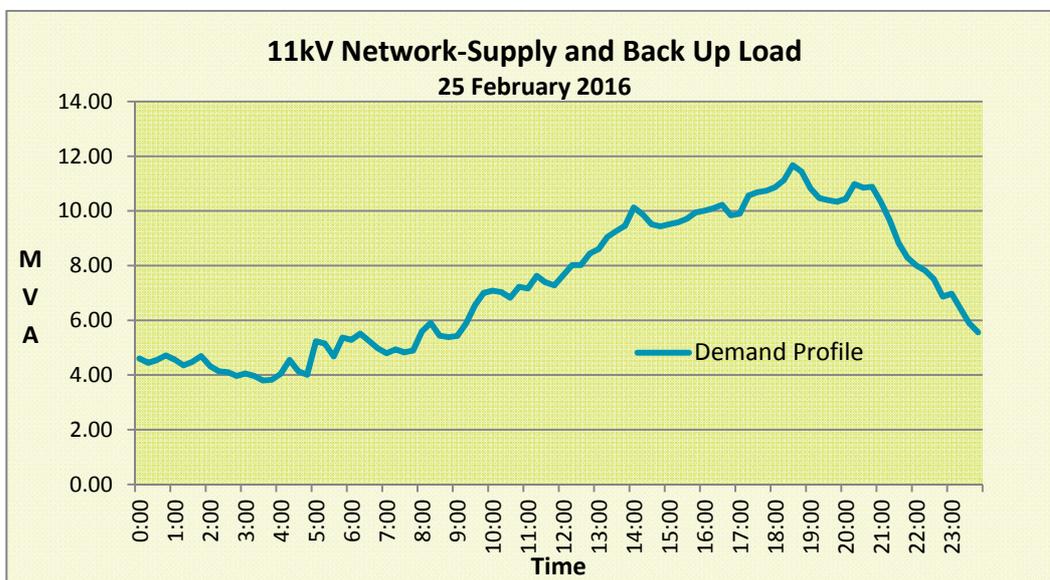
As stated above, all of the energy at risk above “N” capacity is taken to be expected unserved energy. However, where loads are between “N-1” capacity and “N” capacity, the energy at risk is subject to a

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 5.

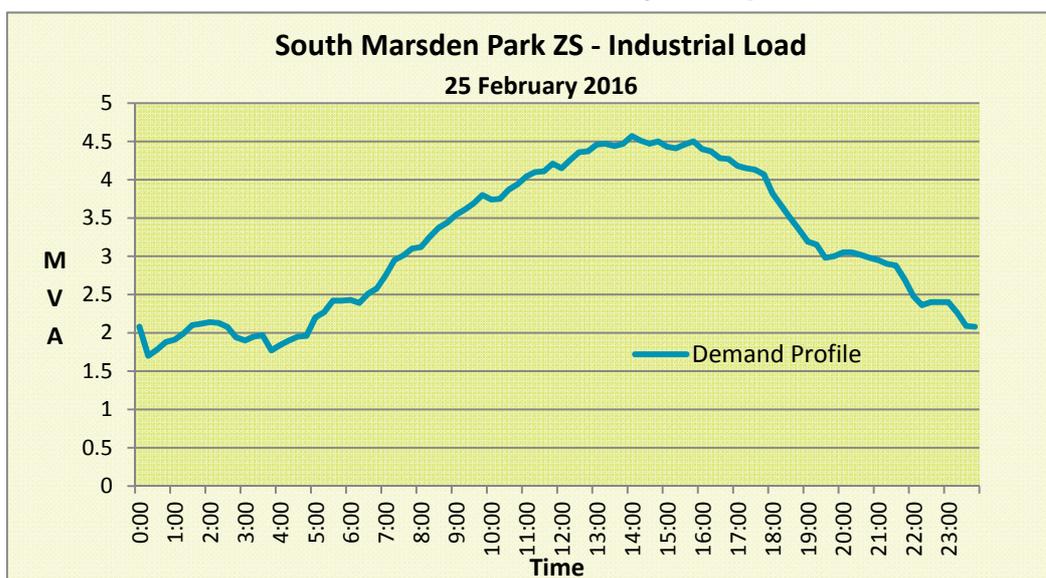
#### 4.4 LOAD PROFILE CHARACTERISTICS

The load profile for South Marsden Park ZS, including the 11kV back-up feeders shown in Graph 1, is influenced by a combination of residential and industrial/commercial loads. Once the development in the industrial precinct increases, the load profile will change to be more industrial/commercial with the peak demand moving towards early to mid-afternoon. The current load profile shows a typical residential and industrial/commercial mix. Peak demands generally occur from 5 pm to 9 pm on days that exceed 30 degrees, particularly after a sequence of hot days. As the industrial/commercial demand increase and becomes the dominant load type, the peak demand timing will move as shown in graph 2. Demand reduction will need to target the 11am to 8pm time period for a non-network option to be effective.

**Graph 1 – South Marsden Park ZS and backup 11kV feeders Peak Day Load profile**



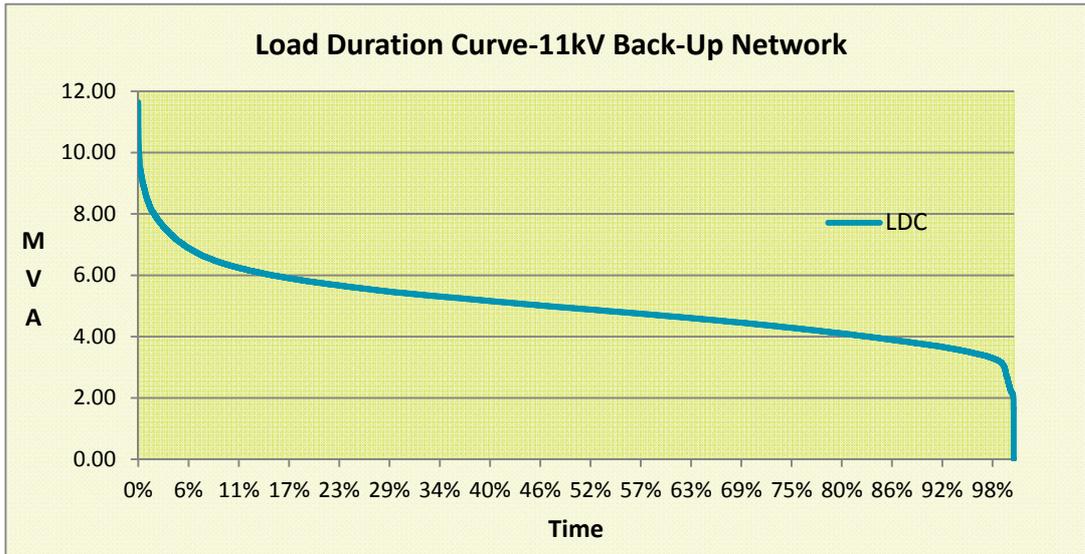
**Graph 2 – South Marsden Park ZS Industrial Peak Day Load profile**



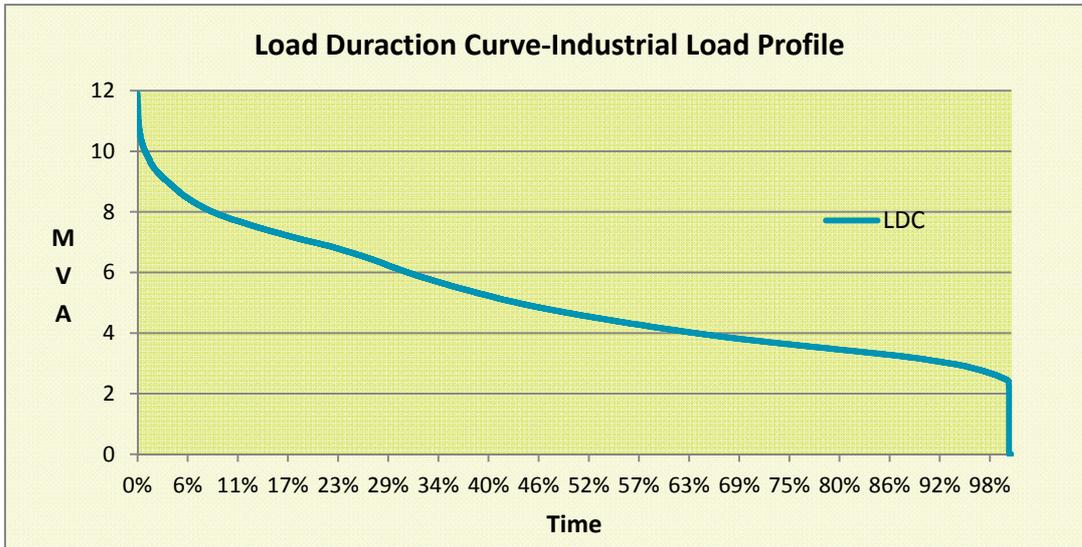
#### 4.5 LOAD DURATION CURVE

The load duration curve for South Marsden Park ZS and surrounding 11kV back-up network is shown in Graph 3. This curve is influenced by the residential component connected to the back-up 11kV feeders. When the industrial/commercial load increases and the 11kV back-up capacity decreases, the load duration curve will change to be more industrial/commercial. A typical load duration curve for an industrial/commercial load is shown in Graph 4. The determination of the expected unserved energy is based on the industrial/commercial load curve, as this is the future load profile.

**Graph 3 – South Marsden Park ZS and backup 11kV feeders Load Duration Curve**



**Graph 4 – Industrial Area Load Duration Curve**



#### 4.6 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 has used the VCR estimates provided by AEMO, weighted in accordance with the composition of the industrial/commercial load by sector in the South Marsden Park ZS supply area. The VCR values are shown in Table 6.

**Table 6 – Value of Customer Reliability**

Load Type	VCR (\$ per kWh)
Residential	\$26.53
Commercial	\$44.72
Industrial	\$44.06
Agriculture	\$47.67

The value of customer reliability (VCR) can be different due to the nature of the load type. For example, the industrial/commercial sector may value the reliability of supply at a much higher level than residential loads.

**5 SUMMARY OF POTENTIAL CREDIBLE NETWORK OPTIONS**

This section discusses the feasible network options that have been identified to address the network constraints mentioned in the previous section. The timing of network upgrades is dependent on the load at risk and the level of expected unserved energy, which are the basis of probabilistic planning and network investment.

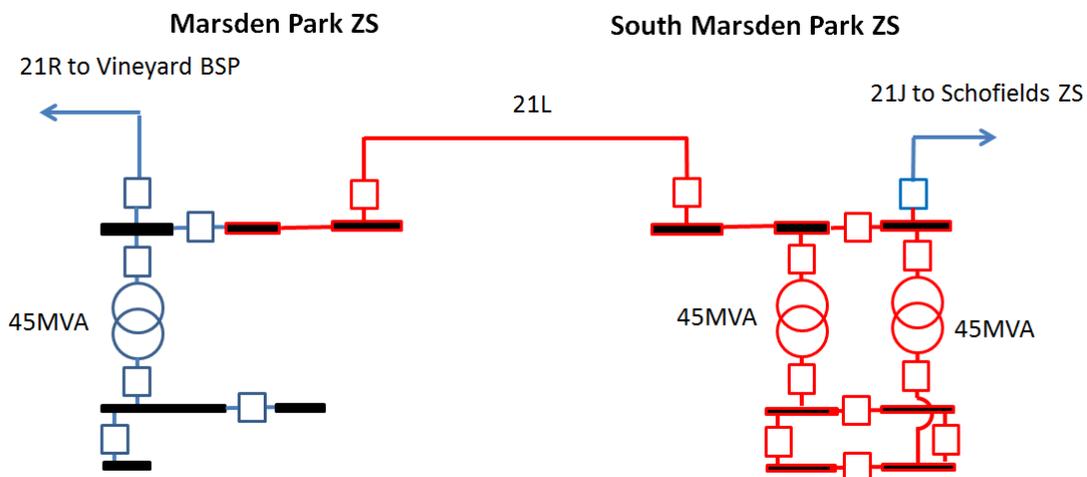
**5.1 NETWORK OPTION 1 – South Marsden Park ZS (Firm 45 MVA Capacity)**

This option involves the upgrade of South Marsden Park ZS (stage 1) to a two 45 MVA transformer substation (stage 2) and the installation of a second 132kV transmission feeder (21L) from Vineyard BSP via Marsden Park ZS with the associated 132kV busbars, at an estimated cost of \$24.6 million. Construction lead-time for this option is three years from 2017/18 to 2019/20. The option is shown in Figure 1 and Map 4.

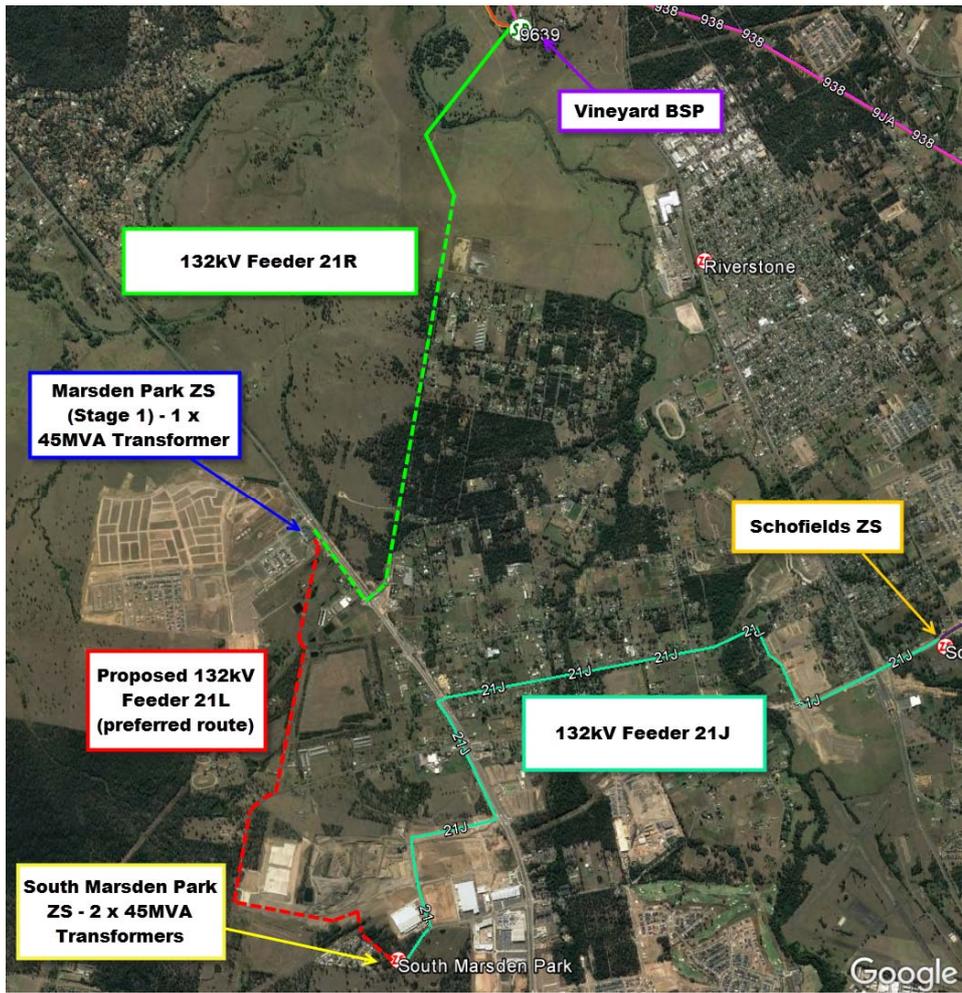
The upgraded South Marsden Park ZS would be the main supply for the Marsden Park Industrial precinct. This would then enable the zone substations of Marsden Park, Schofields, Rooty Hill and Riverstone to cater for the load growth in the precincts of Marsden Park Residential, Riverstone, Schofields, West Schofields and Colebee respectively.

The proposed 132kV supply would provide security of supply to South Marsden Park ZS and Marsden Park ZS by enabling either ZS to back up the load of the other during an outage condition.

**Figure 1 –South Marsden Park Zone Substation (Firm 45MVA Capacity)**



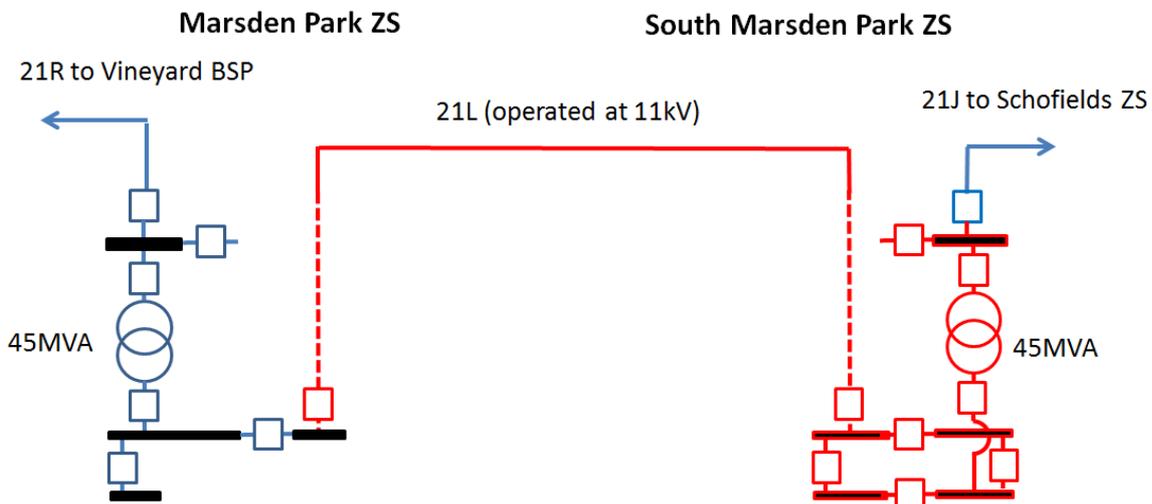
**Map 4 – Preferred Network Option for Marsden Park Industrial Precinct**



**5.2 NETWORK OPTION 2 – South Marsden Park ZS (Firm 16 MVA Capacity)**

This option involves the upgrade of South Marsden Park ZS to a single 45 MVA transformer substation and building the 132kV transmission feeder (21L) but energising it at 11kV to provide a firm back-up of 16 MVA. This will defer the full substation development by three to four years. The cost of this option is estimated at \$20.4 million over three years from 2017/18 to 2019/20. The option is shown in Figure 2.

**Figure 2 –South Marsden Park Zone Substation (Firm 16MVA Capacity)**

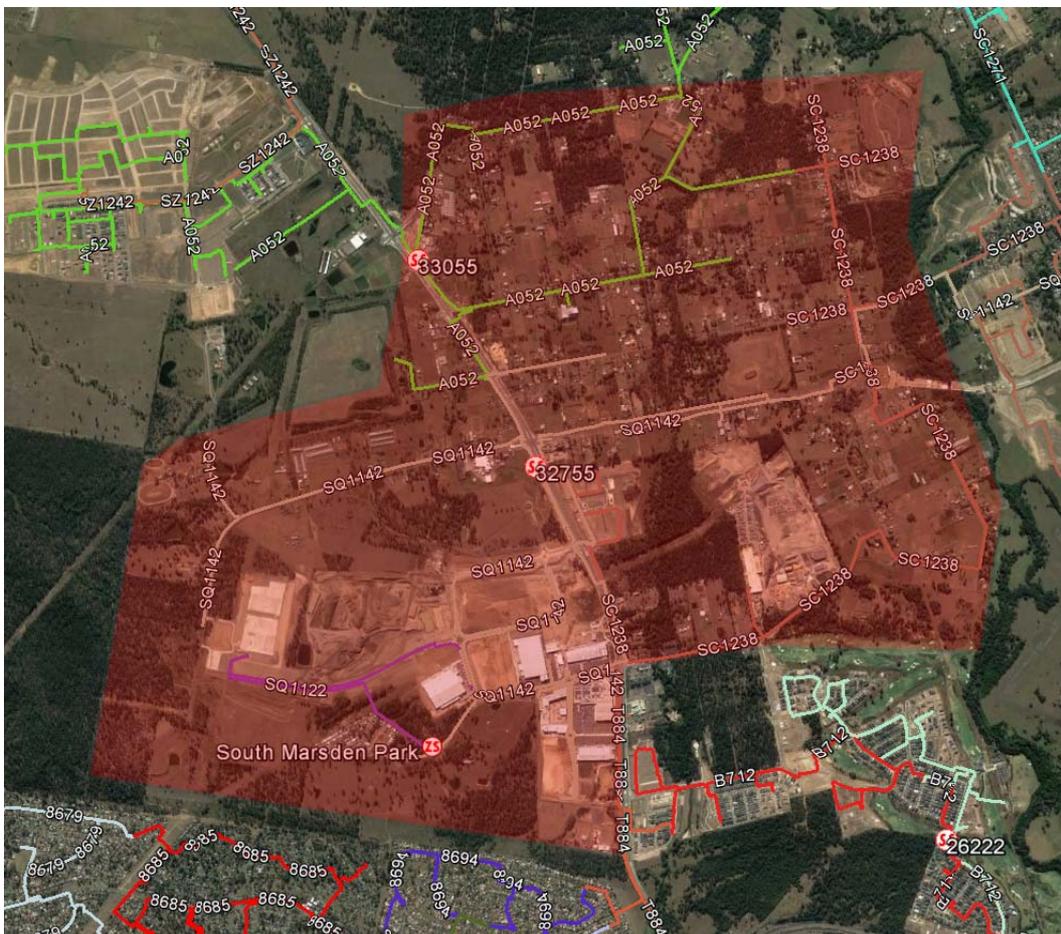


## 6 NON-NETWORK OPTIONS

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

The location for load reduction is shown in Map 5. The suburbs include, Marsden Park, South Marsden Park, Schofields (part), Riverstone (part) and Shanes Park. The South Marsden Park Zone Substation has a mix of industrial/commercial and residential load types and some remaining rural lots. The industrial/commercial component will quickly expand and become the dominant load type. The existing residential sector is made up of low density housing.

Map 5 – Location of Demand Reduction



### 6.1 NON-NETWORK OPTION OBJECTIVE

The objective of the non-network option is to obtain sufficient demand reduction to defer the proposed network option for a minimum of one-year. Endeavour will consider implementing demand reduction initiatives for 2018/19 and 2019/20 to manage the expected energy and load at risk if sufficient demand reduction cannot be provided to defer the network option. Endeavour is willing to implement demand management initiatives where cost-effective.

The challenge for this project is that the load growth is from ‘greenfield’ development areas. It is inherently difficult to obtain sufficient demand reduction from the existing customer base, which tends to be small in comparison to the ultimate numbers in the development area. Opportunities for demand reduction need to focus on the developing areas. Endeavour Energy is keen to identify opportunities for demand reduction in ‘greenfield’ development areas as the majority of demand growth in Endeavour Energy’s network area is from these new release areas.

To achieve the non-network option objective, the demand reduction must target load reduction on the South Marsden Park ZS and the 11kV network backing-up the Marsden Park Industrial Precinct, refer Map 5.

## 6.2 TECHNICAL CHARACTERISTICS OF A NON-NETWORK OPTION

This section sets out the technical characteristic for a non-network option to successfully meet the objective. As previously mentioned, the trigger for network investment is not necessarily the load at risk above firm capacity. However, when identifying options to address the load and energy at risk, they would need to successfully eliminate the risk in order compare options equally.

The technical characteristics include the following:

- Meet the demand reduction levels as detailed in Table 8;
- Provide demand reduction conditions as specified in Table 7;
- Provide the level of reliability required by Endeavour Energy, refer section 6.5;
- Meet the timeframes expected to address the Load at Risk, refer Table 8.

### 6.2.1 TIMING OF DEMAND REDUCTION

The ‘time of day’ demand reduction requirement are based on the load profiles shown in Graphs 1 and 2 which are the profiles for the South Marsden Park ZS and the 11kV back-up supply. While the industrial/residential mix profile is dominant at this stage the industrial/commercial component will rapidly grow and will move the peak demand towards the 11am to 5pm period. Consequently, the 11am to 8pm period for demand reduction needs to be targeted.

**Table 7 – Non-network Option Technical Characteristics**

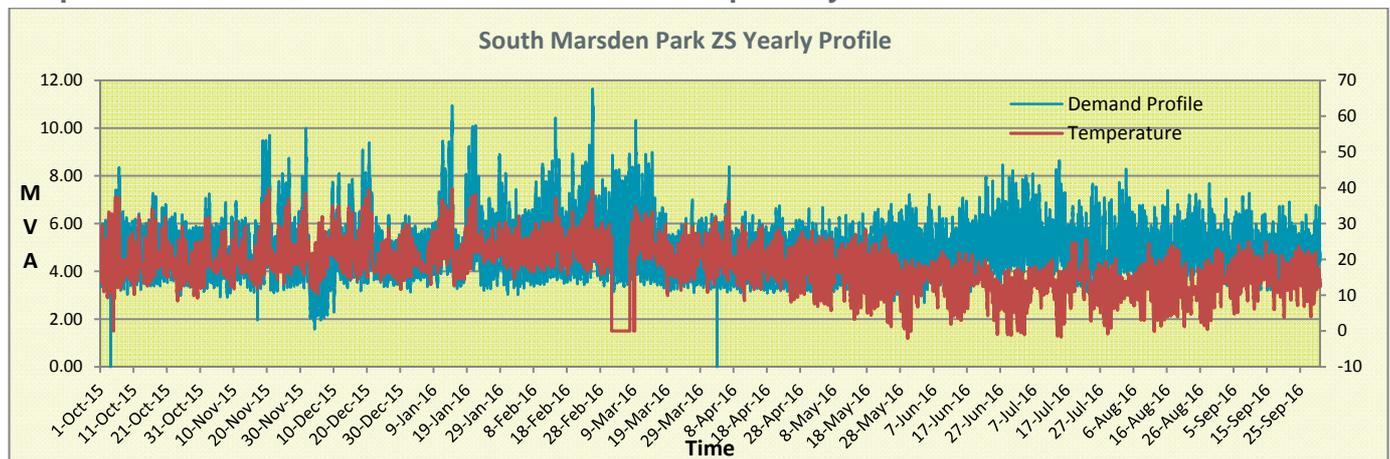
Objective	Target
Time of year	1 November to 31 March and 1 June to 31 August (by 2020/21 reduction will be required all year round)
Time of day	11 am to 8 pm
Season condition	Refer Table 8
Day type	All days
Demand reduction required	Refer Table 8

The seasonal demand reduction variation shows the winter peak demand is about 20% lower and the mid-season demand is about 40% lower than summer, refer Graph 5. The seasonal demand reduction levels are shown in Table 8.

**Table 8 – South Marsden Park ZS Seasonal Load at Risk above Firm Capacity**

Item (MVA)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
South Marsden Park ZS Summer Demand	6.3	11.9	15.0	18.2	20.9	23.6	26.3	29.0	31.7	34.5
South Marsden Park ZS Winter Demand	5.0	9.5	12.0	14.6	16.7	18.9	21.0	23.2	25.4	27.6
South Marsden Park ZS Mid-season Demand	3.8	7.1	9.0	10.9	12.5	14.2	15.8	17.4	19.0	20.7
11kV Back-up Capacity	11.3	12.9	11.1	9.1	7.8	7.1	7.1	7.1	7.1	7.1
<b>Load At Risk-Summer</b>	<b>0.0</b>	<b>0.0</b>	<b>3.9</b>	<b>9.1</b>	<b>13.1</b>	<b>16.5</b>	<b>19.2</b>	<b>21.9</b>	<b>24.6</b>	<b>27.4</b>
<b>Load At Risk-Winter</b>	<b>0.0</b>	<b>0.0</b>	<b>0.9</b>	<b>5.5</b>	<b>8.9</b>	<b>11.8</b>	<b>13.9</b>	<b>16.1</b>	<b>18.3</b>	<b>20.5</b>
<b>Load At Risk-Mid-season</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.8</b>	<b>4.7</b>	<b>7.1</b>	<b>8.7</b>	<b>10.3</b>	<b>11.9</b>	<b>13.6</b>

**Graph 5 – South Marsden Park ZS and 11kV Back-up Yearly Profile**



Customer demand response (DR) initiatives may need to be initiated up to 26 times on a pre-emptive basis in 2018/19, growing to over 300 days a year within a two-year period. From summer 2020/21, demand reduction will be required all year round. This indicates that only permanent demand reduction will meet the demand reduction objectives shown in Table 8.

### 6.2.2 LOAD TYPE SPLIT

The load type split based on existing connected loads and total demand for each load type is shown in Table 9. Demand reduction can be obtained from any of these sectors in order to meet the overall objectives provided the peak demand reduction is targeted. The majority of the load growth shown in Table 8 is from the industrial/commercial sector. The load type split shown in Table 9 will quickly change to become predominantly industrial/commercial by 2019/20.

**Table 9 – Load Type Split**

Load Type	Demand	Percentage
Industrial/Commercial	4.8 MVA	32%
Residential	10 MVA	68%

### 6.2.3 DEMAND MANAGEMENT PROGRAM DESIGN

Endeavour Energy has many years of experience implementing industrial demand management programs. The most popular initiatives were demand response (via embedded generation), load curtailment, load shifting, power factor correction, lighting, and efficient equipment. These initiatives were implemented with predominantly large industrial customers. Similar programs have been implemented in commercial areas with similar results.

Endeavour Energy has also implemented residential demand management programs being, *PeakSaver* and *CoolSaver* and has trialled *PoolSaver*. The Endeavour Energy *SolarSaver* program is currently being trialled which is based on installing battery energy storage systems in residential households that have solar panels.

There is an opportunity for aggregators or similar service providers to investigate the potential to sign up customers to deliver demand reduction in the residential and industrial sectors in a similar fashion to *PeakSaver*, *CoolSaver* and the Endeavour Energy *SolarSaver* programs. Industrial demand management programs are generally quicker to implement as they involve dealing with a fewer number of customers.

Other potential demand management opportunities include:

- Embedded generation;
- Energy Management Services;
- Technology Providers;
- Energy Storage; or
- Efficient equipment.

The challenge for all demand management initiatives is to ensure they are individually cost effective. Endeavour Energy will aggregate all demand management initiatives that provide cost-effective demand reduction in their own right to meet the overall demand reduction target required. Demand reduction must meet the reliability requirements of Endeavour Energy, refer section 6.5.

### 6.2.4 LOAD REDUCTION POTENTIAL

If sufficient demand reduction is available from the existing customer base and from the newly connected customers, or by other means, then a non-network option may be feasible to manage the load at risk and potentially defer the proposed upgrade of South Marsden Park ZS. Alternatively, if sufficient embedded generation could be installed to reduce the peak demand on the constrained parts of the network the same result can be achieved.

From Endeavour Energy's previous demand management programs implemented since 2003, the delivered demand reductions from industrial/commercial customers, following an energy audit, range from between 10% to 20%. The current demand from the existing industrial/commercial sector in the South Marsden Park supply area is 4.8 MVA.

The 11kV network supplying the Marsden Park Industrial precinct currently contains 1,837 residential customers. Statistics from the *PeakSaver* and *CoolSaver* residential demand management programs indicate a take-up rate of 4% can be expected with an average reduction level of 1.7kVA and 1.3kVA per customer respectively. It is believed that the take-up rate can be increased to 8% for both programs with improved marketing and higher penetration of Demand Response Enabled air conditioners.

The *PoolSaver* program is based on connecting residential customers' pool pumps to the Controlled Load 2 tariff. A recent trial indicated that a *PoolSaver* program can be cost effective in reducing residential demand. The trial achieved an average demand reduction of 366W per household.

Currently, there are 135 residential customers with solar panels connected to the network supplied by Schofields, Rooty Hill, and Riverstone feeders. This represents 7.3% of the residential customer base. These customers could potentially form the basis of a residential battery storage program.

To achieve a one-year deferral of the network option a demand reduction of 13.1 MVA is required to be implemented by 2020/21. As mentioned in clause 6.2.1, this would need to be predominantly permanent demand reduction to remove the load at risk.

## 6.2.5 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 listed below in Table 10.

**Table 10 – Reliability Standards**

Feeder/Network Type	Average Reliability Duration Standards (minutes per customer)	Average Reliability Interruption 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	1000	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 Conditions requirements. However, a cost-effective non-network option that is considered to be a higher risk than a network option, such as load curtailment programs, may still be acceptable given that the value of the non-network option will reflect the level of risk delivered by that option. In this case, oversubscribing in load curtailment would improve the initiatives reliability to align with the network option.

## 7 FINANCIAL MODELLING

Endeavour Energy is required to ensure investments in the distribution network are prudent and the preferred option is 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 the preferred network option indicates deferring \$24.6 million for one-year results in an Avoided Distribution Cost (ADC) of \$1.47 million. The expenditure to implement a non-network option will occur over three years from 2018/19 to 2020/21 to achieve a one-year deferral. The maximum financial incentive payment to achieve a one-year deferral equates to \$100 per kVA for permanent demand reduction as an incentive payment based on targeting 13.1 MVA of demand

reduction. This represents the maximum amount that would be available as a network support payment and is dependent on the reliability of demand reduction.

Load curtailment/shifting program will attract a lower payment due to their lower reliability level as demand reduction is dependent on customer participation on the demand response event day. This results in a need to oversubscribe the level of demand reduction. Any 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.

## 8 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 Information" (RFI).

At this stage, 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. The respondent is to include all information detailed in section 3.2 of the Endeavour Energy Demand Side Engagement Document 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, substituted or interrupted;
- 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 C - Pricing Sheet;
- The level of contribution or assistance required by the respondent from Endeavour Energy; and
- Other information that would assist Endeavour Energy in investigating and 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 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 respondents 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.

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

## **8.1 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 respondents to clarify costs or any other information associated with the submission.

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 Respondent's submission.

### **8.1.1 EMBEDDED GENERATION**

If the proposal is embedded generation service, 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;
- h) Specify the expected contribution in fault level arising from the embedded generation at each connection point, if known;
- i) Specify any particular commissioning requirements for the embedded generator(s);
- j) Specify any particular installation requirements for the embedded generator(s);
- k) Specify how you proposed to verify demand reduction from the embedded generator(s);
- l) Specify any equipment delivery requirements for this type of embedded generator(s);
- m) Specify the dispatch process for using the embedded generator(s) for demand reduction. What is the minimum notification required from Endeavour Energy, how is notification to be conducted;
- n) Proposed payment structure, refer Part C-Pricing Sheet; and
- o) Any other relevant information.

### **8.1.2 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 customer 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;
- 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 payment structure, refer Part C-Pricing Sheet; and
- l) Any other relevant information.

### **8.1.3 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. The area target of predominantly industrial with residential customer connected to the 11kV back-up supply;
- 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 payment structure, refer Part C-Pricing Sheet; and
- i) Any other relevant information.

### **8.1.4 TECHNOLOGY/EQUIPMENT PROVIDER**

If the proposal is a technology, 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;
- 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
- 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 payment structure, refer Part C-Pricing Sheet; and
- m) Any other relevant information.

### **8.1.5 GENERAL INFORMATION REQUIRED**

Respondents 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.

### **8.1.6 PROGRAM DELIVERY**

Respondents must demonstrate in Part C 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:

- 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.

Respondents 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.

## **8.2 EVALUATION AND SELECTION CRITERIA**

The following factors will form the basis of the criteria used in the evaluation process. Respondents 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.

### **8.3 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.

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

### **8.4 MEASUREABLE 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.

Respondents 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.

### **8.5 ADDITIONAL**

Respondents 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”).

## PART B: GENERAL TERMS

### 1. INTRODUCTION

The purpose of this NNOR is to gain information in respect of the market for the Goods and Services with a view to assisting Endeavour Energy develop its sourcing strategy for the Goods and Services. This NNOR is not part of any request for tender process and will not result in any respondent being engaged, except under exceptional circumstances will a respondent be directly engaged to provide the Goods and Services. If a non-network option is determined to be cost-effective and meets the demand management program objectives then an RFT or RFP will be issued to engage the service provider. The NNOR is intended solely for the information of the party to whom it is addressed and no other person. Capitalised terms in this NNOR have the meaning set out in **section 7**.

Respondents should ensure that they read and understand each section of this NNOR. By submitting a Response to Endeavour Energy, Respondents will be taken to have accepted all of the terms and conditions set out in this NNOR.

### 2. ABOUT ENDEAVOUR ENERGY

Endeavour Energy is a NSW Government state-owned energy corporation, incorporated under the *Energy Goods and Services Corporations Act 1995* (NSW). Endeavour Energy distributes electricity to more than 2.3 million people, in households and businesses in NSW. Endeavour Energy is a forward looking, innovative business, intent on achieving its vision: to be Australia's leading energy business.

Respondents are encouraged to read further information about Endeavour Energy, its values and its business, on its website at [www.endeavourenergy.com.au](http://www.endeavourenergy.com.au).

### 3. TIMETABLE FOR NON-NETWORK OPTIONS REPORT PROCESS

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

**Table 1 – Response Timetable**

Event	Date
Non-Network Options Report issued	30 May 2017
Cut-off date for questions	5 Business Days prior to Closing Date
Non-Network Options Report closes (Closing Date)	31 August 2017 at 2.00pm AEST/AEDT (as applicable)

Respondents must note that dates set out in the foregoing table are indicative only and may be varied by Endeavour Energy in its sole discretion.

#### 3.1 INTENTION TO RESPOND

If you intend to respond please forward the following details to [consultation@endeavourenergy.com.au](mailto:consultation@endeavourenergy.com.au) prior to the response due date listed in Table 1.

- Company name;
- Company address;

- Contact name;
- Contact number;
- Contact email address; and
- Product or service being offered.

## 4. NON-NETWORK OPTIONS REPORT PROCESS

### 4.1 LODGEMENT OF RESPONSES

Responses must be lodged electronically to Endeavour’s email account at [consultation@endeavourenergy.com.au](mailto:consultation@endeavourenergy.com.au) no later than the Closing Date. The email subject line must contain the title “NNOR Response South Marsden Park-*Company name*”. Where Respondents experience difficulty in lodging Responses electronically they must contact the Non-Network Options Report contact person prior to the Closing Date.

All electronic files must be submitted in Microsoft Office 2010, Adobe PDF or AutoCAD 2006 format only.

### 4.2 ACKNOWLEDGMENT OF RESPONSE RECEIPT BY ENDEAVOUR

Endeavour will make every reasonable effort to notify Respondents that their Response has been received within 5 working days of the Closing Date.

### 4.3 LATE RESPONSE POLICY

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

### 4.4 NON-NETWORK OPTIONS REPORT

All enquires in respect of this NNOR must be lodged through the Response Forum available at Endeavour's email address at [consultation@endeavourenergy.com.au](mailto:consultation@endeavourenergy.com.au). 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 NNOR (“**Non-Network Options Report contact person**”).

**Respondents must not direct communications to Endeavour employees other than the Non-Network Options Report contact person without Endeavour’s express written permission. Under no circumstances can Respondents direct questions to any third party that Endeavour has engaged to prepare the NNOR.**

Endeavour is not obliged to answer any communication initiated by Respondents later than five Business Days prior to the Closing Date, or as otherwise may be indicated in **section3**. However, Endeavour may in its sole discretion seek additional information or material from any Respondent after the Closing Date and all such information and material provided by the Respondent will be taken to form part of that Respondent’s Response.

Respondents should provide details of their email address(es), as responses to questions of a technical or Statement of Requirements nature will only be provided to the Respondent via email.

Where a question or any other information received from a Respondent indicates a material discrepancy in this RFI, or in any related information or identifies an area where clarification is required, Endeavour may make Endeavour’s response, together with the initial question or information, available to all Respondents.

## **4.5 DISCUSSIONS WITH RESPONDENTS**

Endeavour may in its sole discretion engage in discussions with any Respondent (or simultaneously with more than one Respondent) after the Closing Date. Endeavour may invite respondents to present their proposals to Endeavour Energy as part of the evaluation process

## **5. GENERAL CONDITIONS OF RESPONDING**

### **5.1 INVITATION TO TREAT**

This NNOR is an invitation to Respondents to provide information to Endeavour. 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 Respondent.

### **5.2 OTHER ENDEAVOUR RIGHTS**

- (a) Endeavour may, in its sole discretion and at any stage of the NNOR process, do all or any of the following:
- i) require additional information from any Respondent;
  - ii) change the structure of the NNOR process;
  - iii) terminate further participation in the NNOR process by any Respondent for any reason, regardless of whether the Response submitted conforms with the requirements in this NNOR ;
  - iv) change the scope of the Goods and Services or other requirements of this NNOR ;
  - v) vary, amend (including by replacement) or terminate the NNOR process;
  - vi) consider any non-conforming or late Response; and
- (b) This NNOR contains statements derived from information which is believed to be reliable at the date of issue. Any time or date in this NNOR is for the sole convenience of Endeavour. The establishment of a time or date in this NNOR does not create an obligation on the part of Endeavour. Endeavour may vary any time or date in this NNOR in its sole discretion.

### **5.3 RESPONSIBILITY FOR COSTS OF PARTICIPATION**

Participation in any stage of this NNOR process, or in relation to any matter concerning the NNOR , will be at the Respondent's sole risk, cost and expense. Endeavour will not be responsible in any circumstance for any costs or expenses incurred by any Respondent in preparing or lodging a Response or in taking part in the NNOR process or taking any action related to the NNOR process.

### **5.4 INFORMATION PROVIDED**

- (a) This NNOR 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 Response in relation to the Goods and Services.
- (b) Neither Endeavour nor any of its 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 NNOR . Neither Endeavour nor any of its 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 NNOR (including any information to which reference is made).

## **5.5 NO RELIANCE**

- (a) Respondents must form independent judgements about any information and performance or other figures in this NNOR , and make their own enquiries. Endeavour has no liability to any person who acts or fails to act in reliance on any information or figures in this NNOR .
- (b) The Respondent acknowledges that it has not relied on any other information not contained in this NNOR (including without limitation any expression of interest or similar document in relation to the Goods and Services).

## **5.6 LIABILITY**

To the maximum extent permitted by law, Endeavour will not be liable to any Respondent 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 Respondent's participation in the NNOR process, including, without limitation, instances where:

- (a) Endeavour varies or terminates the NNOR process or any negotiations with a Respondent;
- (b) Endeavour exercises any of its other rights under or in relation to this NNOR ; or
- (c) data is lost, corrupted or not received through Responses being lodged by email.

## **5.7 OWNERSHIP OF RESPONSES**

Without affecting any intellectual property rights which may exist in a Response, all Responses submitted in response to this NNOR will become the property of Endeavour. Without limiting the foregoing, Endeavour may copy and reproduce Responses for its internal business purposes.

## **5.8 CONFIDENTIAL INFORMATION**

- (a) This NNOR and any other information provided by Endeavour during the NNOR process is confidential information of Endeavour and Respondents must not disclose the contents of this NNOR or any other information provided by Endeavour during the NNOR process, supply any information, make any statement or otherwise issue any document to any third party concerning this NNOR , whether for publication or transmission in any form or otherwise, without the prior written consent of Endeavour.
- (b) Endeavour Energy is required to publish information regarding its non-network option investigation and implementation in accordance with the NER. We are required to publish details of any proposals submitted in RIT-D publications associated with the constraint. If a respondent does not want their response or any particular part of their response published you must inform us in your response.
- (c) If a respondent requests that Endeavour maintain their response or part of their response confidential then we will treat the requested information and any supporting material as confidential information and will not disclose their contents to any third party except those employees, agents and advisers of Endeavour who are involved with formulating a sourcing strategy for the Goods and Services.

- (d) If there is any inconsistency between the terms of any other confidentiality agreement between Endeavour and a Respondent and this **section 5.8**, the terms of this **section 5.8** will prevail except where such other confidentiality agreement expressly states that it is to apply notwithstanding the terms of this NNOR .

## 5.9 RETURN OF INFORMATION TO ENDEAVOUR

- (a) Endeavour 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 Respondent including all copies of such information) be:
- i) returned to Endeavour, in which case the Respondent must promptly return all such information to the address identified by Endeavour; or
  - ii) destroyed by the Respondent, in which case the Respondent must promptly destroy all such information.
- (b) The Respondent will promptly provide written confirmation to the NNOR contact person that they have completely fulfilled their obligations under *paragraphs (a)* if required by Endeavour.

## 5.10 APPLICABLE LAW

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

## 6. SUBMISSION RESPONSES

Respondents must note that Endeavour will not be engaging any Respondent as a result of this NNOR process. Respondents may consequently submit any information believed to be relevant to help Endeavour Energy formulate its sourcing strategy in respect of the Goods and Services provided that they comply with this NNOR document.

## 7. DEFINITION OF TERMS USED IN THIS NON-NETWORK OPTIONS REPORT

Definitions of terms used in this NNOR:

**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 Responses by Respondents specified in **section** Error! Reference source not found. of this NNOR (as may be modified in accordance with this NNOR).

**Endeavour or Endeavour Energy** means, a corporation constituted under the Energy Goods and Services Corporations Act 1995, of 51 Huntingwood Drive, Huntingwood New South Wales 2148, Australia.

**Goods and Services** means the goods and/or Goods and Services broadly described in Part A of this NNOR.

**including** means including without limitation.

**Non-Network Option Report** means this document, any attachments and any referenced documents and comes in the form of an RFI.

**RFI** means this Request for Information, any attachments and any referenced documents and is represented by this Non-Network Options Report.

**Statement of Requirements** means the Statement of Requirements for the Goods and Services or Works set out in **Part A** of this NNOR

**Response** means a complying or non-complying response to this NNOR.

**Respondent** means an organisation, company, or individual which obtains a copy of this NNOR (and is or remains only a prospective Respondent) or which actually lodges a Response.