

Secure supply and enable connections: Pakenham South & Surrounding Areas

Regulatory Investment Test for Distribution (RIT-D)

Options Screening Report

10th February 2026

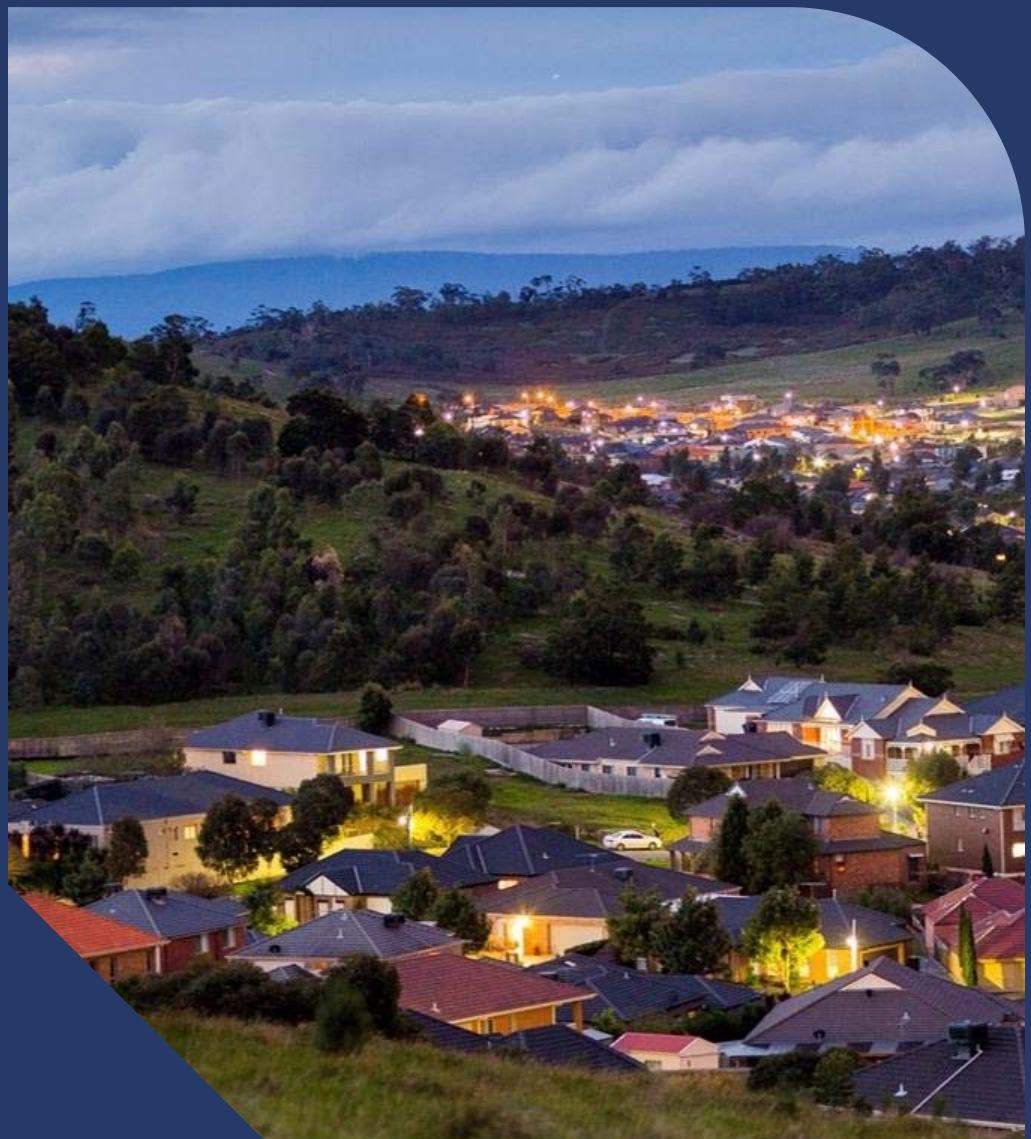


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1. Executive summary

AusNet is a regulated Victorian Distribution Network Service Provider (**DNSP**) that provides electricity distribution services to approximately 845,000 customers. Our electricity distribution network covers eastern rural Victoria and the outer northern and eastern Melbourne metropolitan areas.

The Regulatory Investment Test for Distribution (**RIT-D**) is an economic cost-benefit assessment and consultation process designed to identify the most credible option that addresses an identified need on the network, while maximising net economic benefits for stakeholders in the National Electricity Market (**NEM**) – the preferred option.

This RIT-D has been initiated by AusNet to identify the preferred option to address the supply security limitations of the Pakenham South & surrounding supply area within the Cardinia municipality of the Victorian Planning Authority's (**VPA**) South East Growth Corridor¹, a rapidly developing region within south-eastern greater metropolitan Melbourne.

Identified need

The Pakenham South & surrounding **supply** area on the urban fringes of Melbourne's south-eastern suburbs is a vast greenfield development area located between Officer and Cardinia, to the south of the Princes Highway covered by the Pakenham South Employment Precinct Structure Plan (**PSP**)², and the Officer South PSP³.

The population projection for the relevant local government area of Cardinia indicates a growth rate 2.9% per annum on a base of approximately 123,580 people, representing approximately 49,400 households with an expected growth in households of 1,400 per year.

The industries in the region that are expected to experience the strongest growth are: health care and social assistance; retail trade; manufacturing; construction; education and training. AusNet has already received several industrial and commercial customer connection applications in the South East Growth Corridor in Pakenham South and surrounding areas, resulting in more than 30 MVA additional load capacity added to our network. All of these loads are expected to be fully operational by 2029.

The region is supplied in part by AusNet's existing five zone substations Clyde North (**CLN**), Cranbourne East (**CRE**), Officer (**OFR**), Pakenham (**PHM**) and Lang Lang (**LLG**), through a network of 22 kV distribution feeders supplying approximately 122,000 customers.

AusNet has developed electricity demand forecasts for the supply area, updated to reflect the demands of recent summers, electrification activity, solar PV and battery installations, and the abovementioned developments. AusNet has identified from these forecast maximum demands, increasing levels of load-at-risk, where the demand is forecast to exceed the capacity of some parts of the network.

In particular, the maximum demand at zone substations CLN, LLG, OFR, and PHM has already exceeded their respective single contingency (**N-1**) ratings. This is shown in Table 1.

Table 1: Zone substation forecast PoE10 overload (MVA) inc. available transfers and demand management

Load-at-risk (MVA)	FY26	FY27	FY28	FY29	FY30	FY31	FY32
CLN (N-1)	10.8	15.7	19.7	23.3	29	34.1	41.2
LLG (N-1)	28.7	33.1	33	33.1	33.2	33.6	33.9
OFR (N-1)	21.1	28.1	33.2	36.2	38.6	40.5	42.4
PHM (N-1)	28.8	33.2	33	33	33.4	34.6	35.4
TOTAL (N-1)	89.4	110.1	118.9	125.6	134.2	142.8	152.9
CLN (N)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LLG (N)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OFR (N)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHM (N)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL (N)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Furthermore, feeders CLN22, CLN23, OFR14, OFR21, PHM21 and PHM22 are expected to exceed their system normal (**N**) ratings between financial year (**FY**) 2026 and 2032. This is shown in Table 2.

¹ [Victorian Planning Authority – The South East Growth Corridor Plan](#), Victorian Planning Authority (VPA), 2012.

² [Pakenham South Employment Precinct](#), Creating Cardinia, 2024

³ [Officer South \(Employment\)](#), Victorian Planning Authority (VPA), 2024

Table 2: Distribution feeder forecast PoE10 overload (MVA) inc. available transfers and demand management

Load-at-risk (MVA)	FY26	FY27	FY28	FY29	FY30	FY31	FY32
CLN22 (N)	2.4	3.2	3.7	4.3	4.9	5.6	6.4
CLN23 (N)	0.0	0.0	0.0	0.3	1.5	2.7	3.9
OFR14 (N)	0.6	4.5	6.7	8.5	9.5	9.8	10.1
OFR21 (N)	0.7	1.5	1.6	1.7	2.1	2.3	2.6
PHM21 (N)	7.4	11.1	11.2	11.0	11.3	12.5	14.1
PHM22 (N)	0.5	3.8	4.4	6.4	6.6	6.6	6.7
TOTAL (N)	11.6	24.1	27.6	32.2	35.9	39.5	43.8

Approximately 43.8 MVA of additional capacity or demand reduction is required by 2032, rising from a present need of 11.6 MVA, through network augmentation or alternative non-network approaches such as demand management, embedded generation, and/or storage to ensure a reliable electricity supply to the Pakenham South & surrounding supply area is maintained.

AusNet uses a probabilistic planning approach to calculate the expected unserved energy (EUE) if no mitigation action is taken (i.e., Do nothing base case) to assess whether it is economic to invest in risk mitigation to reduce the forecast supply reliability risk.

A material level of EUE is emerging in the area as shown in Table 3. The calculated EUE considers available load transfers and the unavailability of network asset capacity, weighted using the industry practice of 30% contribution from the 1-in-10 year (PoE10) and 70% from the 1-in-2 year (PoE50) forecast maximum demand, and monetised using a locational Value of Customer Reliability (VCR).

Table 3: Do nothing base case forecast expected unserved energy (EUE)

EUE (MWh pa)	FY26	FY27	FY28	FY29	FY30	FY31	FY32
CLN	0.0	0.1	0.1	0.2	0.4	0.7	1.1
LLG	98.6	127.7	141.4	155.7	172.2	192.3	212.4
OFR	0.9	3.9	10.5	16.9	24.0	32.7	42.2
PHM	0.5	1.4	1.9	2.5	3.4	5.1	7.0
CLN22	7.5	22.7	51.1	109.5	196.2	371.2	597.5
CLN23	0.0	0.0	0.0	0.0	2.6	7.9	21.4
OFR14	1.8	248.1	731.0	1,313.1	1,714.8	1,914.0	2,073.1
OFR21	0.4	2.2	3.1	4.5	7.2	11.8	17.8
PHM21	1,664.8	6,222.6	6,483.9	7,646.2	9,100.1	12,452.0	13,486.6
PHM22	0.1	40.6	135.6	350.7	383.7	407.4	437.1
TOTAL (MWh pa)	1,774.6	6,669.3	7,558.6	9,599.3	11,604.6	15,395.1	16,896.2
Total (\$m, 2025 pa)	65.4	247.1	283.1	362.0	439.1	581.3	639.6

By 2032, EUE and its financial impact on customers are forecast to be 16,896 MWh p.a. and \$639.6 million (real, \$2025) respectively. This presents a forecast deterioration in electricity supply reliability.

The identified need is to address forecast capacity shortfalls on the 22 kV distribution feeders and associated zone substations supplying the Pakenham South & surrounding supply area, in order to maintain electricity supply reliability and facilitate forecast load growth.

Potential credible options

For this RIT-D, AusNet proposes to investigate and evaluate the following network options to address the identified need:

1. Option 1: Pakenham South new zone substation, and new distribution feeders
2. Option 2: Third transformer and bus at Pakenham zone substation, and new distribution feeders
3. Option 3: Third transformer and bus at Officer zone substation, and new distribution feeders
4. Option 4: Second transformer and bus at Lang Lang zone substation, and new distribution feeders

AusNet will also consider and evaluate any alternative, non-network or stand-alone power system (**SAPS**) proposals that are submitted by interested parties during this RIT-D consultation, that can credibly address the identified need. This includes those that can either be combined with another solution to defer or reduce in scope credible network options being considered, and/or mitigate the EUE in the lead up to implementing a network option.

Submissions and next steps

The publication of this Options Screening Report (**OSR**) marks the first step in the RIT-D process, in line with clause 5.17 of the National Electricity Rules (**NER**)⁴ version 243 published by the Australian Energy Market Commission (**AEMC**), and section 4.2 of the RIT-D Application Guidelines⁵, published by the Australian Energy Regulator (**AER**).

AusNet welcomes written submissions on the credible options presented in this OSR and invites proposals from proponents of potential non-network or SAPS options (stand-alone or in conjunction with a network solution) that meet the identified need. Any credible non-network options will be assessed alongside the network options at the next stage of the RIT-D.

Submissions should be emailed to ritdconsultations@ausnetservices.com.au on or before 8th May 2026, considering minimum 12 weeks time for consultation period..

In the subject field, please reference '**RIT-D OSR Pakenham South & Surrounding Areas**'.

AusNet's preference is that these submissions would be published on its website and AEMO's website. If you do not want your submission to be made public, please clearly stipulate this at the time of lodgement.

Assessments of the options and responses to this OSR will be presented in the Draft Project Assessment Report (**DPAR**), which we expect to publish before the end of June 2026.

⁴ [National Electricity Rules \(NER\)](#), Australian Energy Market Commission (AEMC), 2026

⁵ [Regulatory Investment Test for Distribution application guidelines](#), version 6, Australian Energy Regulator (AER), 2024

2. Introduction

AusNet is a regulated Victorian Distribution Network Service Provider (**DNSP**) that provides electricity distribution services to approximately 845,000 customers. Our electricity distribution network covers eastern rural Victoria and the outer northern and eastern Melbourne metropolitan areas.

The Regulatory Investment Test for Distribution (**RIT-D**) is an economic cost-benefit assessment and consultation process designed to identify the most credible option that addresses an identified need on the network, while maximising net economic benefits for stakeholders in the National Electricity Market (**NEM**) – the preferred option.

This RIT-D has been initiated by AusNet to identify the preferred option to address the supply security limitations of the Pakenham South & surrounding supply area within the Cardinia municipality of the Victorian Planning Authority's (**VPA**) South East Growth Corridor⁶, a rapidly developing region within south-eastern greater metropolitan Melbourne.

The publication of this Options Screening Report (**OSR**) marks the first step in the RIT-D process, in line with clause 5.17 of the National Electricity Rules (**NER**)⁷ version 243 published by the Australian Energy Market Commission (**AEMC**), and section 4.2 of the RIT-D Application Guidelines⁸, published by the Australian Energy Regulator (**AER**).

In accordance with those requirements, this document sets out:

- the identified need that AusNet is seeking to address, together with the assumptions used in identifying this need;
- a description of the potential credible network options that may address the identified need;
- the technical characteristics of each potential credible option;
- the estimated construction timetable and commissioning date;
- the total indicative capital and operating costs for each potential credible option and a high-level cost breakdown;
- the technical characteristics of the identified need that a non-network or stand-alone power system (**SAPS**) option would be required to provide;
- information to assist non-network providers wishing to present alternative potential credible options including details of how to submit a proposal for consideration by the RIT-D proponent.

The appendices provide an overview of the RIT-D assessment and consultation process, and an NER compliance checklist.

⁶ [Victorian Planning Authority – The South East Growth Corridor Plan](#), Victorian Planning Authority (VPA), 2012.

⁷ [National Electricity Rules \(NER\)](#), Australian Energy Market Commission (AEMC), 2026

⁸ [Regulatory Investment Test for Distribution application guidelines](#), version 6, Australian Energy Regulator (AER), 2024

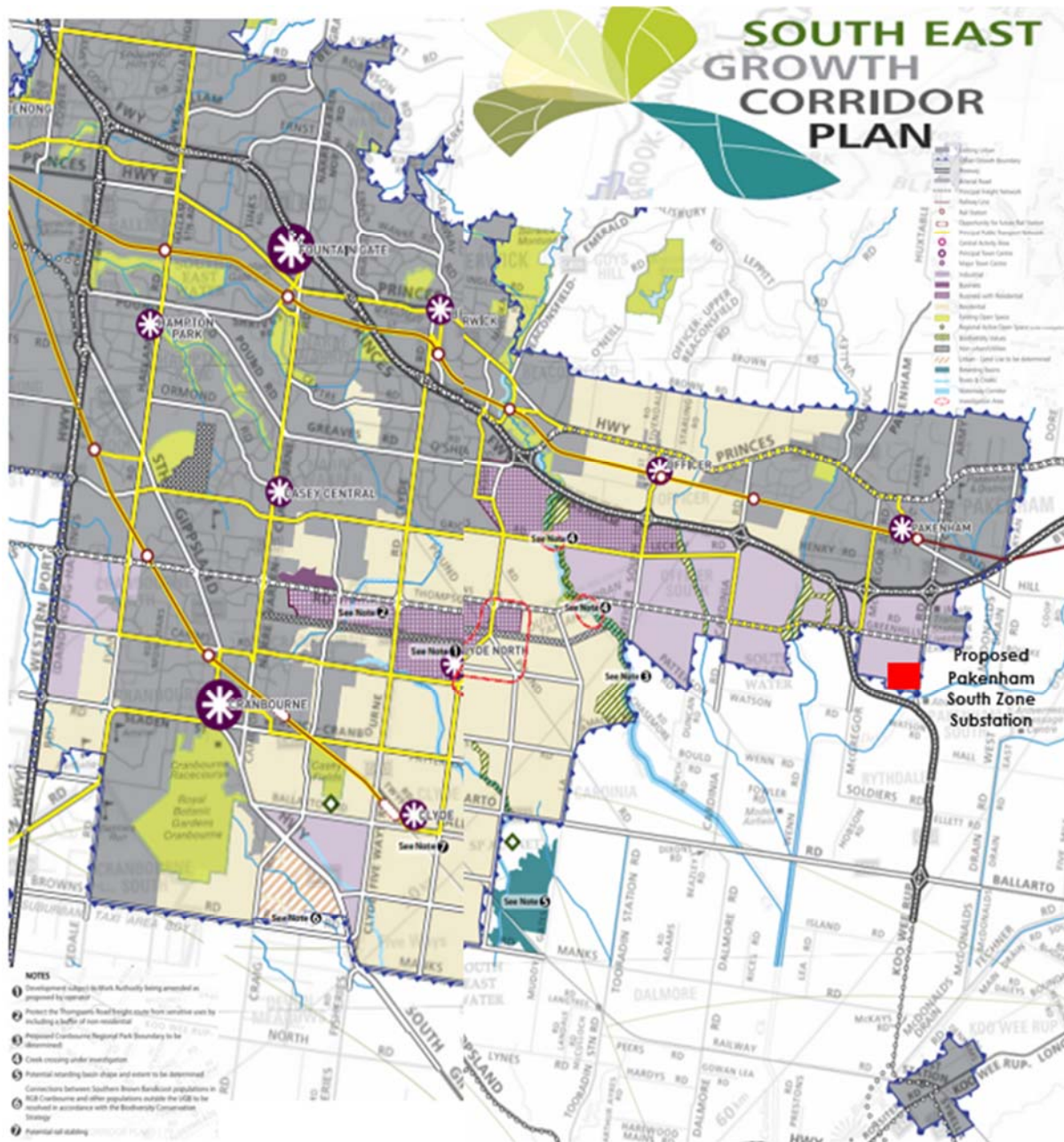
3. Background

The Pakenham South & surrounding supply area on the urban fringes of Melbourne’s south-eastern suburbs is a vast greenfield development area located between Officer and Cardinia, to the south of the Princes Highway covered by the Pakenham South Employment Precinct Structure Plan (PSP)⁹, and the Officer South PSP¹⁰.

The population projection for the relevant local government area of Cardinia indicates a growth rate 2.9% per annum on a base of approximately 123,580 people, representing approximately 49,400 households with an expected growth in households of 1,400 per year.

This area is illustrated in Figure 1 within the broader South East Growth Corridor¹¹.

Figure 1: South East Growth Corridor



Source: VPA

⁹ Pakenham South Employment Precinct, Creating Cardinia, 2024

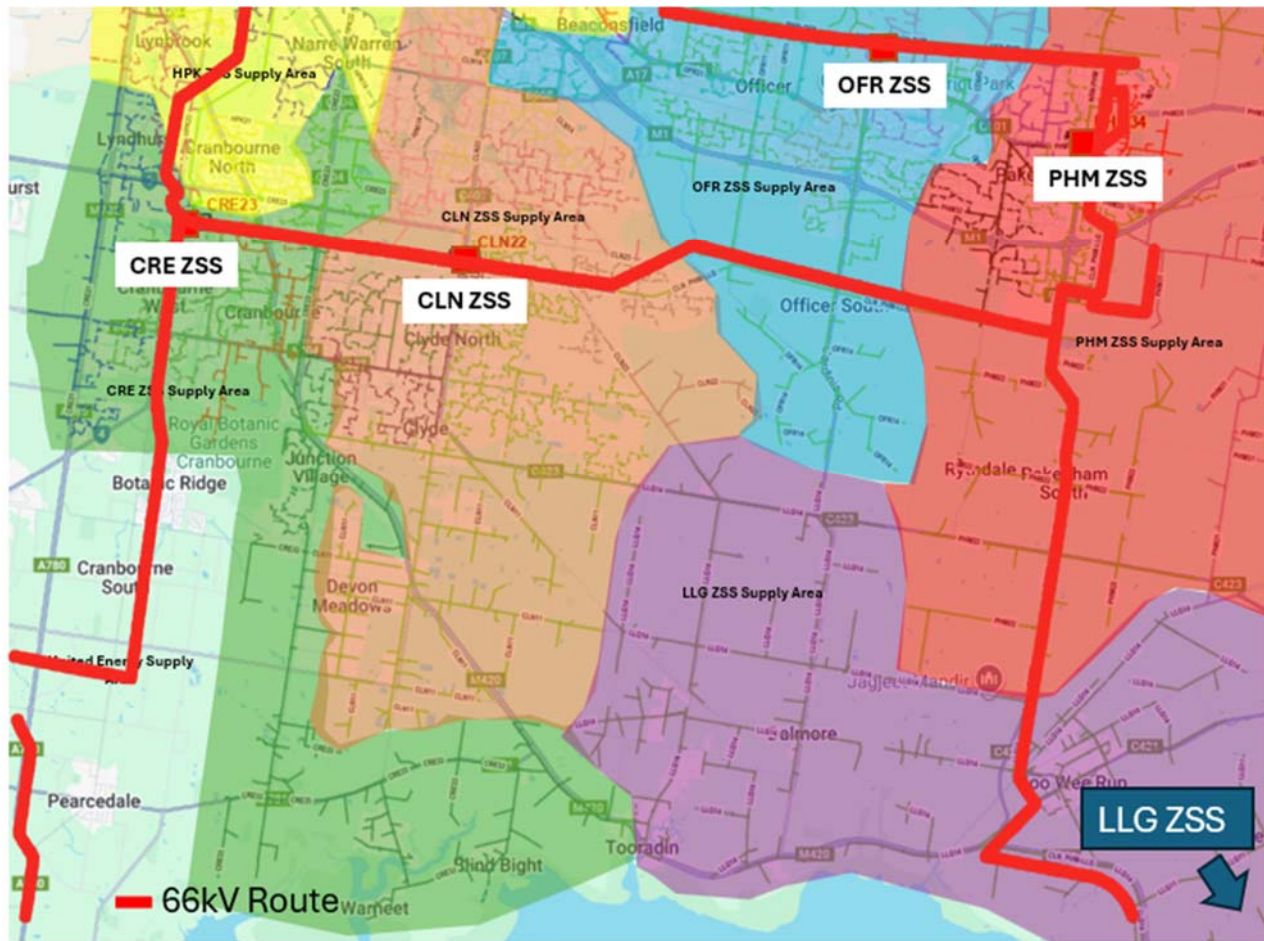
¹⁰ Officer South (Employment), Victorian Planning Authority (VPA), 2024

¹¹ Victorian Planning Authority – The South East Growth Corridor Plan, Victorian Planning Authority (VPA), 2012.

The industries in the region that are expected to experience the strongest growth are: health care and social assistance; retail trade; manufacturing; construction; education and training. AusNet has already received several industrial and commercial customer connection applications in the South East Growth Corridor, including business parks in Pakenham South and surrounding areas, resulting in more than 30 MVA additional load capacity added to our network. All of these loads are expected to be fully operational by 2029.

The region is supplied in part by AusNet’s existing five zone substations Clyde North (CLN), Cranbourne (CRE), Officer (OFR), Pakenham (PHM) and Lang Lang (LLG), through a network of 22 kV distribution feeders supplying approximately 122,000 customers, as shown in Figure 2, overlaid by the 66 kV sub-transmission lines supplying the South East Growth Corridor.

Figure 2: South East Growth Corridor 22 kV distribution feeder and 66 kV sub-transmission network



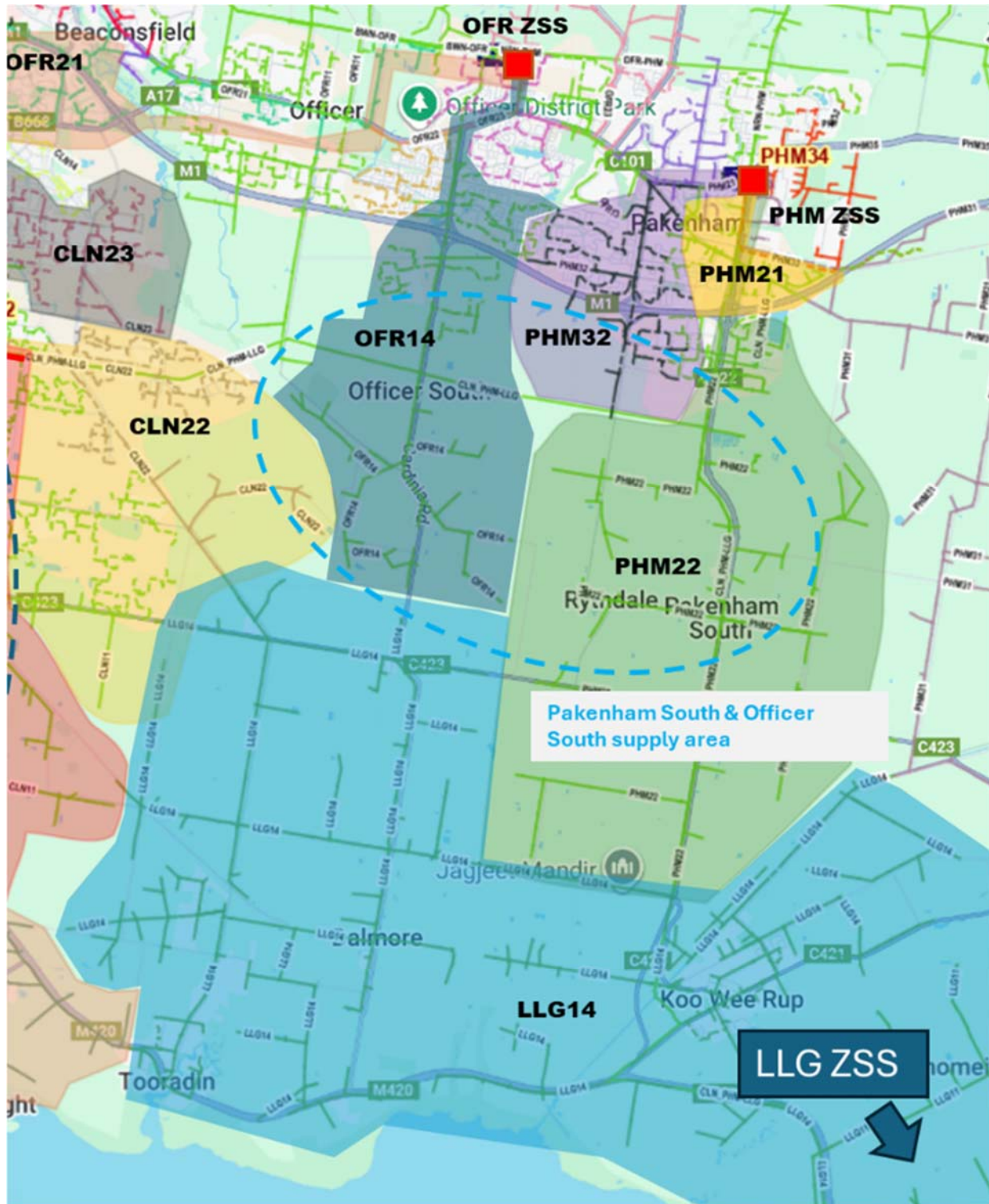
AusNet has developed electricity demand forecasts for the Pakenham South & surrounding supply area, updated to reflect the demands of recent summers, electrification activity, solar PV and battery installations, and the abovementioned developments. AusNet has identified from these forecast maximum demands, increasing levels of load-at-risk, where the demand is forecast to exceed the capacity of some parts of the network.

Of particular concern are existing 22 kV feeders that supply into the development areas:

- CLN22, and CLN23 feeders being in the rapidly growing estates towards east/south/southeast of CLN and brown field areas serving communities in Thompsons Road, Clyde creek, Cranbourne East and Clyde North
- OFR14 and OFR21 serving Officer South employment precinct and surrounding areas
- PHM21 and PHM22 serving Pakenham South industrial precinct and surrounding areas

The coverage of these feeders is shown in Figure 3.

Figure 3: Existing 22 kV network supplying the Pakenham South & Surrounding supply area



AusNet has another RIT-D¹² with a proposed preferred option to upgrade the sub-transmission loop from the Cranbourne Terminal Station (**CBTS**) to OFR zone substation, driven by the “do nothing” energy at risk. We have assessed the CBTS 66 kV sub-transmission loop supplying the South East growth corridor and determined that, irrespective of the options considered in this RIT-D, the proposed augmentation from CBTS to OFR remains necessary to mitigate energy at risk and is economically justified. Additionally, the proposed CBTS to OFR sub-transmission augmentation has been assessed to have no impact on the 22 kV distribution network options evaluated in this RIT-D. Therefore, it is not included in this RIT-D.

¹² Final Project Assessment Report: East Cranbourne, AusNet September 2025.

4. Identified need

This section provides information regarding the identified need of this RIT-D, and the assumptions used in quantifying the identified need.

4.1. Description of the identified need

The identified need is to address forecast capacity shortfalls on the 22 kV distribution feeders and associated zone substations supplying the Pakenham South & surrounding supply area, in order to maintain electricity supply reliability and facilitate forecast load growth.

The maximum demand at CLN, PHM, OFR and LLG has already exceeded their respective single contingency (N-1) ratings. This is shown in Table 4.

Table 4: Zone substation forecast PoE10 overload (MVA) inc. available transfers and demand management

Load-at-risk (MVA)	FY26	FY27	FY28	FY29	FY30	FY31	FY32
CLN (N-1)	10.8	15.7	19.7	23.3	29	34.1	41.2
LLG (N-1)	28.7	33.1	33	33.1	33.2	33.6	33.9
OFR (N-1)	21.1	28.1	33.2	36.2	38.6	40.5	42.4
PHM (N-1)	28.8	33.2	33	33	33.4	34.6	35.4
TOTAL (N-1)	89.4	110.1	118.9	125.6	134.2	142.8	152.9
CLN (N)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LLG (N)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OFR (N)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHM (N)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL (N)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Feeders CLN22, CLN23, OFR14, OFR21, PHM21 and PHM22 are expected to exceed their system normal (N) ratings between financial year (FY) 2026 and 2032. This is shown in Table 5.

Table 5: Distribution feeder forecast PoE10 overload (MVA) inc. available transfers and demand management

Load-at-risk (MVA)	FY26	FY27	FY28	FY29	FY30	FY31	FY32
CLN22 (N)	2.4	3.2	3.7	4.3	4.9	5.6	6.4
CLN23 (N)	0.0	0.0	0.0	0.3	1.5	2.7	3.9
OFR14 (N)	0.6	4.5	6.7	8.5	9.5	9.8	10.1
OFR21 (N)	0.7	1.5	1.6	1.7	2.1	2.3	2.6
PHM21 (N)	7.4	11.1	11.2	11.0	11.3	12.5	14.1
PHM22 (N)	0.5	3.8	4.4	6.4	6.6	6.6	6.7
TOTAL (N)	11.6	24.1	27.6	32.2	35.9	39.5	43.8

The forecast demand in the Pakenham South & surrounding supply area shows that there is currently very little capacity remaining within the distribution feeder network, having a total capacity shortfall of 11.6 MVA in 2026, forecast to increase to 43.8 MVA by 2032 with all assets in service¹³.

¹³ Total (N) load-at-risk in Table 4 and Table 5.

4.2. Quantification of the identified need

AusNet uses a probabilistic planning approach to calculate the expected unserved energy (**EUE**) if no mitigation action is taken (i.e., Do nothing base case) to assess whether it is economic to invest in risk mitigation to reduce the forecast supply reliability risk.

We have calculated the EUE by determining the amount of energy that would not be able to be supplied by the CLN22, CLN23, OFR14, OFR21, PHM21 and PHM22 distribution feeders and the CLN, LLG, PHM and OFR zone substations under system normal conditions. We calculate the EUE by using the maximum demand forecast of the feeder or zone substation and multiplying it by its normalised load duration curve to determine the energy at risk based on the amount of time that the forecast load is above the (N) rating, taking into account load transfer capacity.

We have also calculated the EUE by determining the amount of energy that would not be able to be supplied by the CLN, LLG, OFR and PHM zone substations under single contingency conditions. The calculation differs from that of the above by instead using the (N-1) rating and multiplying the overall result by the transformer unavailability, which considers its failure rate and restoration time.

The total EUE is weighted according to 30% of the EUE calculated using a 1-in-10 year (**PoE10**) maximum demand, and 70% of the EUE calculated using a 1-in-2 year (**PoE50**) maximum demand.

The cost of deteriorating reliability to the community is determined by multiplying the total EUE by the Value of Customer Reliability (**VCR**). We have calculated the locational VCR by adopting the Australian Energy Regulator's (**AER**) 2024 VCRs¹⁴ for the different customer segments, weighting them by the mix of customers' annual energy consumption localised, for each relevant network asset.

A material level of EUE is calculated for the Pakenham South & surrounding supply area, as shown in Table 6.

Table 6: Do nothing base case forecast expected unserved energy (EUE)

EUE (MWh)	FY26	FY27	FY28	FY29	FY30	FY31	FY32
CLN	0.0	0.1	0.1	0.2	0.4	0.7	1.1
LLG	98.6	127.7	141.4	155.7	172.2	192.3	212.4
OFR	0.9	3.9	10.5	16.9	24.0	32.7	42.2
PHM	0.5	1.4	1.9	2.5	3.4	5.1	7.0
CLN22	7.5	22.7	51.1	109.5	196.2	371.2	597.5
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PHM21	1,664.8	6,222.6	6,483.9	7,646.2	9,100.1	12,452.0	13,486.6
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TOTAL (MWh pa)	1,774.6	6,669.3	7,558.6	9,599.3	11,604.6	15,395.1	16,896.2
Total (\$m, 2025 pa)	65.4	247.1	283.1	362.0	439.1	581.3	639.6

By 2032, the EUE and its financial impact on customers are forecast to be 16,896 MWh p.a. and \$639.6 million (real, \$2025) respectively. This presents a forecast deterioration in electricity supply reliability.

¹⁴ [Values of Customer Reliability - Final report](#), Australian Energy Regulator (AER), 2024

4.3. Summary of identified network need

AusNet has identified that approximately 43.8 MVA of additional capacity or demand reduction is required by 2032, rising from the present need of 11.6 MVA, through network augmentation or alternative non-network approaches (such as demand management, embedded generation and/or storage) to maintain a reliable supply of electricity to the Pakenham South & surrounding supply area.

If left unaddressed, these network capacity shortfalls could:

- increase the risk of involuntary load shedding;
- inhibit new customer connections; and
- risk non-compliance with AusNet's regulatory obligations.

Addressing these network capacity limitations will help to ensure that AusNet is able to prudently and efficiently meet forecast electricity demand growth within the Pakenham South & surrounding supply area to:

- support economic growth anticipated for this region;
- support the electrification of homes, businesses and transport¹⁵; and
- maintain electricity supply reliability and facilitate new customer connections.

4.4. Assumptions underpinning the identified need

Key factors underpinning the quantification of the identified need in this RIT-D include:

- Forecast maximum demand;
- Load duration curves;
- Asset ratings;
- Asset unavailability;
- Load transfer capacity; and
- Demand management.

4.4.1. Forecast maximum demand

The forecast maximum demands for the existing 22 kV distribution feeders supplying the developing part of the Pakenham South & surrounding supply area, being CLN22, CLN23, OFR14, OFR21, PHM21 and PHM22, were developed by AusNet in 2025 and are summarised in Table 7 through to

Table 12 respectively.

¹⁵ Refer to [Victoria State Government, 'Gas Substitution Roadmap – Update: Victoria's Electrification Pathway.'](#)

Table 7: Do nothing base case forecast CLN22 maximum demand (MVA)

CLN22	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Summer PoE10	16.7	17.5	18.0	18.6	19.2	19.9	20.6
Summer PoE50	15.5	16.1	16.5	17.0	17.6	18.2	18.8
Winter PoE10	14.7	15.3	15.8	16.3	16.8	17.5	18.1
Winter PoE50	13.6	14.2	14.6	15.0	15.4	16.0	16.5

Table 8: Do nothing base case forecast CLN23 maximum demand (MVA)

CLN23	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Summer PoE10	10.4	11.2	12.3	13.4	14.6	15.8	17.0
Summer PoE50	7.2	7.8	8.7	9.7	10.7	11.8	12.7
Winter PoE10	7.3	8.1	9.6	10.8	11.9	13.3	14.5
Winter PoE50	5.3	6.1	7.4	8.5	9.6	10.8	12.0

Table 9: Do nothing base case forecast OFR14 maximum demand (MVA)

OFR14	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Summer PoE10	14.3	18.2	20.5	22.2	23.2	23.5	23.8
Summer PoE50	12.3	16.2	18.4	20.2	21.1	21.4	21.8
Winter PoE10	14.7	18.8	21.2	23.1	24.1	24.6	25.0
Winter PoE50	12.2	16.2	18.7	20.5	21.5	21.9	22.2

Table 10: Do nothing base case forecast OFR21 maximum demand (MVA)

OFR21	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Summer PoE10	15.0	15.8	15.9	16.0	16.4	16.6	16.9
Summer PoE50	12.9	13.7	13.8	13.9	14.1	14.3	14.5
Winter PoE10	14.0	14.9	15.2	15.4	15.7	16.0	16.3
Winter PoE50	12.9	13.7	14.0	14.3	14.5	14.8	15.1

Table 11: Do nothing base case forecast PHM21 maximum demand (MVA)

PHM21	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Summer PoE10	20.2	23.8	24.0	23.8	24.0	25.3	26.8
Summer PoE50	19.5	23.1	23.2	23.6	24.0	24.6	25.9
Winter PoE10	19.5	23.3	23.6	24.3	25.3	27.3	27.5
Winter PoE50	18.9	22.7	22.8	23.8	24.7	26.7	26.7

Table 12: Do nothing base case forecast PHM22 maximum demand (MVA)

PHM22	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Summer PoE10	14.8	18.1	18.7	20.7	20.9	20.9	21.0
Summer PoE50	14.0	17.4	18.3	19.7	19.8	19.9	20.0
Winter PoE10	14.6	18.5	20.2	20.3	20.3	20.4	20.5
Winter PoE50	13.8	17.9	19.5	19.6	19.6	19.7	19.8

The forecast maximum demands for the 66/22 kV zone substations supplying into the Pakenham South & surrounding supply area being CLN, LLG, OFR and PHM, were developed by AusNet in 2025 and are summarised below in Table 13 through to Table 16 respectively.

Table 13: Do nothing base case forecast CLN maximum demand (MVA)

CLN	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Summer PoE10	100.0	104.9	108.9	112.5	118.2	123.3	130.4
Summer PoE50	84.7	88.9	92.3	96.4	100.5	104.9	109.9
Winter PoE10	69.8	73.9	78.9	83.7	88.7	93.9	101.5
Winter PoE50	64.9	68.8	73.7	78.6	82.9	88.8	95.2

Table 14: Do nothing base case forecast LLG maximum demand (MVA)

LLG	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Summer PoE10	28.7	33.1	33.0	33.1	33.2	33.6	33.9
Summer PoE50	26.1	30.5	30.4	30.4	30.9	31.6	32.0
Winter PoE10	26.1	30.7	31.0	31.3	31.6	32.6	33.2
Winter PoE50	23.9	28.4	28.8	29.1	29.5	30.3	31.0

Table 15 Do nothing base case forecast OFR maximum demand (MVA)

OFR	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Summer PoE10	66.3	73.3	78.4	81.4	83.8	85.7	87.6
Summer PoE50	58.7	65.7	70.8	73.5	75.9	77.4	79.1
Winter PoE10	56.2	63.3	69.6	72.9	75.6	78.1	80.3
Winter PoE50	52.8	60.0	66.1	69.4	71.7	74.5	76.5

Table 16 Do nothing base case forecast PHM maximum demand (MVA)

PHM	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Summer PoE10	73.8	78.2	78.0	78.0	78.4	79.6	80.4
Summer PoE50	67.9	72.5	72.3	72.3	72.9	73.4	74.6
Winter PoE10	65.4	70.1	70.8	71.3	72.3	74.7	76.0
Winter PoE50	62.4	67.0	67.7	68.3	69.4	71.7	73.3

4.4.2. Load-duration curves

Load-duration curves plot demand, normalised as a percentage of the seasonal maximum demand (for summer and winter separately), against the cumulative percentage of time within that season. Demand values are ordered in descending magnitude, such that each point on the load-duration curve represents the proportion of the season for which demand is expected to be greater than or equal to the corresponding load level. Where the product of the load-duration ordinate and the forecast seasonal maximum demand exceeds the seasonal rating, the excess portion, represented by the area above the rating, contributes to EUE.

Figure 4 through to Figure 7 show the load-duration curves for the assets at CLN, LLG, OFR and PHM, respectively.

Figure 4: CLN (and its feeders) load-duration curves

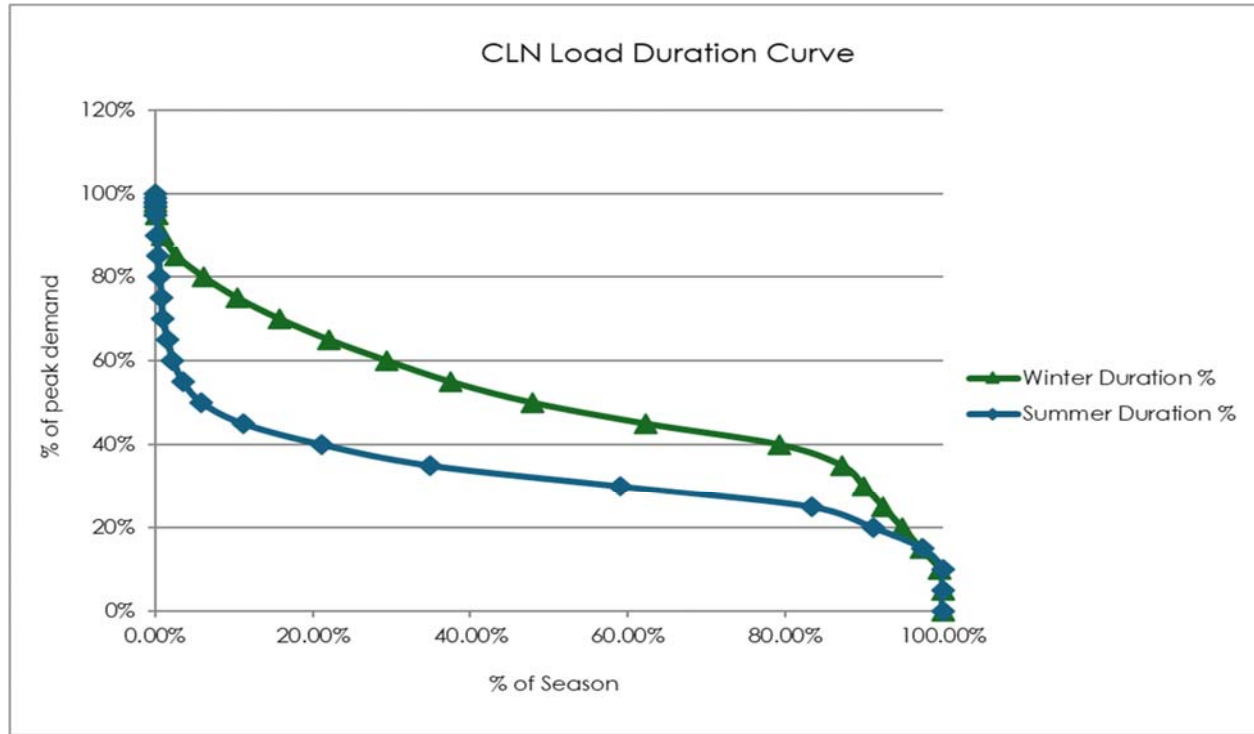


Figure 5: LLG (and its feeders) load-duration curves

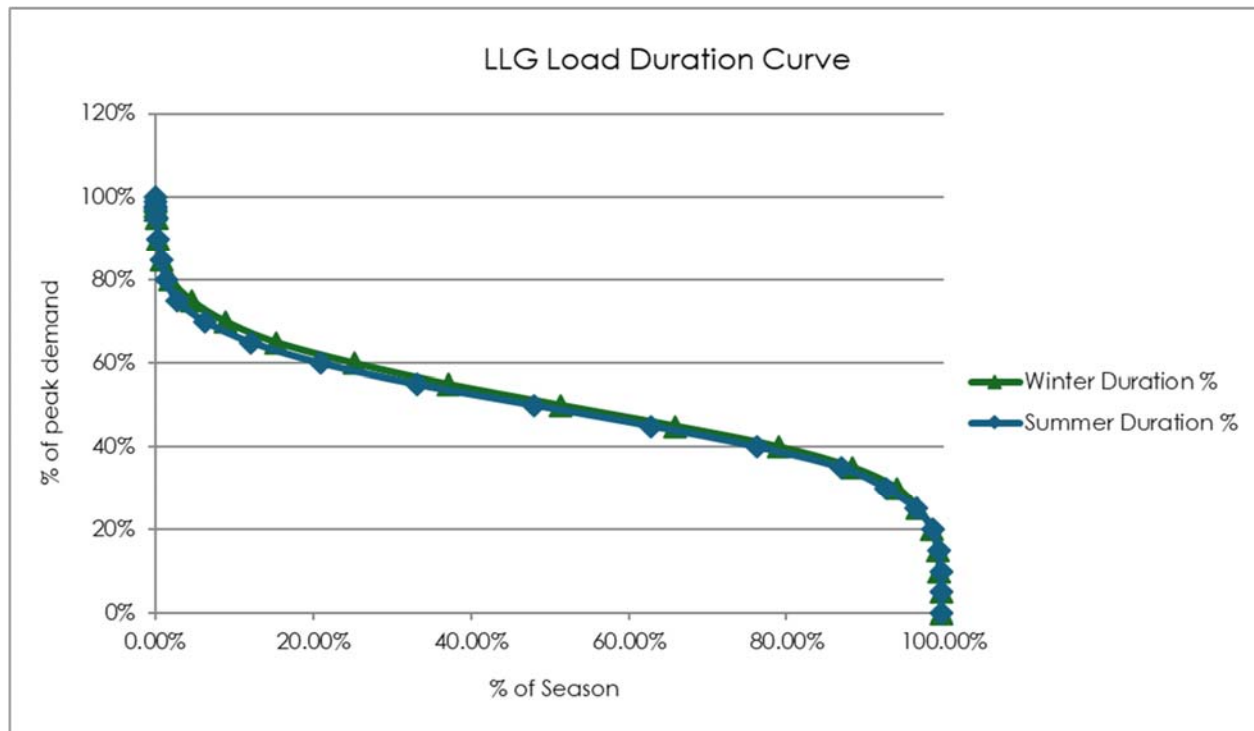


Figure 6: OFR (and its feeders) load-duration curves

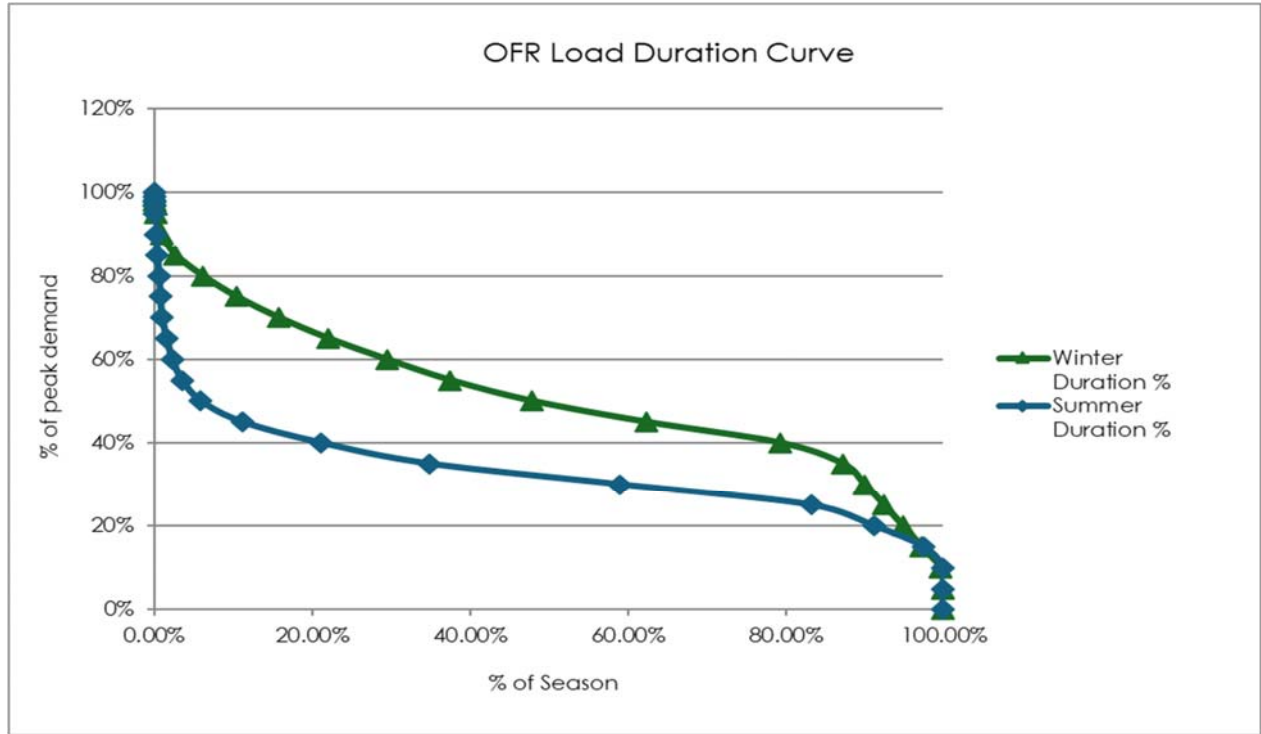
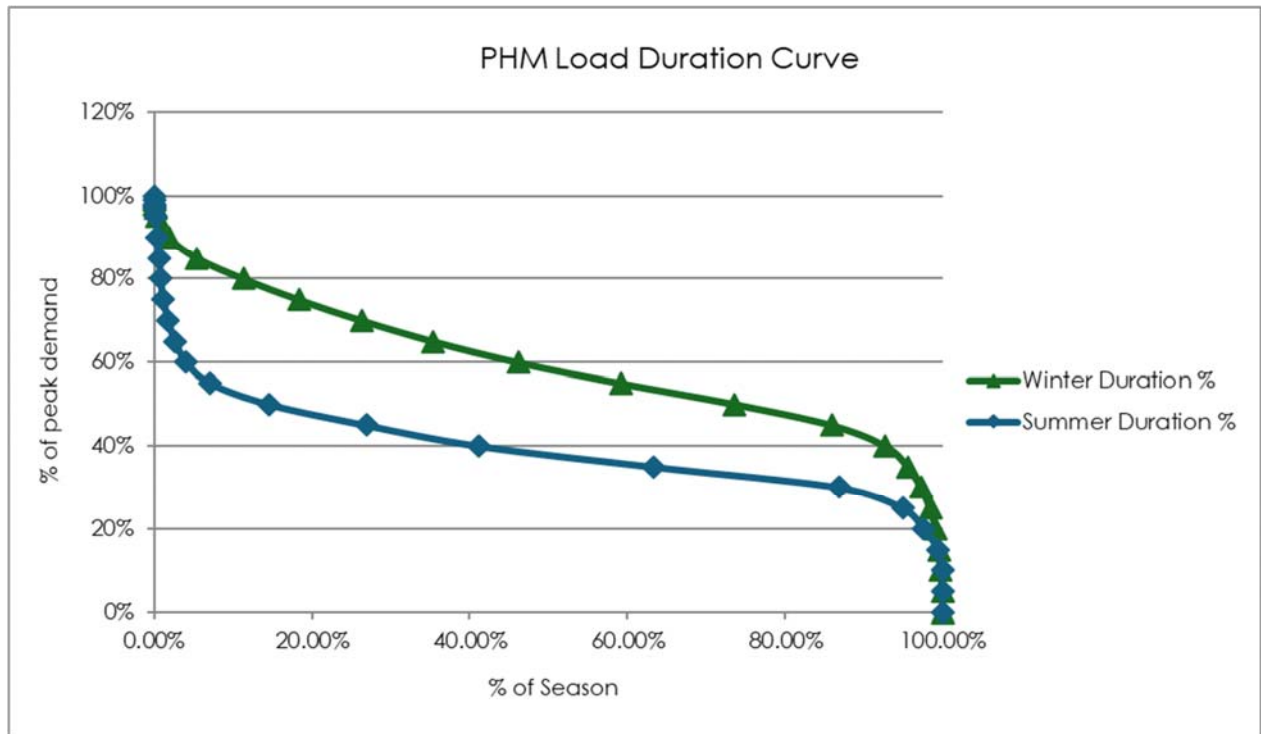


Figure 7: PHM (and its feeders) load-duration curves



4.4.3. Asset ratings

The (N) summer and winter ratings of the distribution feeders that are currently supplying the greenfield growth area within the Pakenham South & surrounding supply area are presented in Table 17.

Table 17: Do nothing base case distribution feeder ratings (MVA)

Feeder	Summer	Winter
CLN22	14.3	14.3
CLN23	13.1	13.1
OFR14	13.7	13.7
OFR21	14.3	14.3
PHM21	12.8	12.8
PHM22	14.3	14.3

The (N) and (N-1) summer and winter ratings of the zone substations servicing the Pakenham South & surrounding supply area are presented in Table 18.

Table 18: Do nothing base case zone substation cyclic ratings (MVA)

Feeder	Summer (N)	Winter (N)	Summer (N-1)	Winter (N-1)
CLN ¹⁶	131.0	143.0	89.2	97.8
LLG	47.4	48.3	0.0	0.0
OFR	93.2	93.2	45.2	48.0
PHM	91.9	95.7	45.0	49.1

4.4.4. Asset unavailability

For distribution feeders, AusNet only considers the EUE as material under system normal operating conditions, that is, when the asset demand exceeds the asset rating with all assets in service.

For zone substations, AusNet considers the EUE as material under both system normal and single contingency conditions, that is, when demand exceeds the asset's rating with all assets in service, and also when one asset is out of service. Table 19 shows the 2026 unavailability per transformer used for calculating the single contingency conditions of zone substations.

Table 19: Transformer unavailability (%)

Zone substation	Failure rate (% p.a.)	No. of transformers	Restoration time (years)	Unavailability (% p.a.)
CLN ¹⁶	0.38	3	0.3858	0.147
LLG	0.19	1	0.3858	0.073
OFR	0.38	2	0.3858	0.147
PHM	0.03	2	0.3858	0.0105

4.4.5. Load transfer capacity

The forecast load transfer capacity for the assets in proximity to the greenfield growth area within the Pakenham South & surrounding supply area is presented in Table 20. The ability to transfer load from the constrained feeders to neighbouring feeders during peak demand will continue to decline. This is because the neighbouring feeders that

¹⁶ AusNet has considered the impact of the 3rd transformer at Clyde North zone substation which is currently at delivery stage.

currently absorb load from these constrained feeders are themselves already near or at their capacity and will also become constrained.

Table 20: Do nothing base case forecast load transfer capacity (MVA)

Transfer capacity	FY26	FY27	FY28	FY29	FY30	FY31	FY32
CLN	18.0	17.7	17.5	17.2	16.9	16.7	16.4
LLG	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OFR	3.3	3.3	3.2	3.2	3.1	3.1	3.0
PHM	1.7	1.7	1.7	1.6	1.6	1.6	1.6
CLN22	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLN23	2.7	2.4	2.2	2.0	1.8	1.6	1.4
OFR14	0.5	0.5	0.5	0.5	0.5	0.5	0.5
OFR21	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHM21	1.4	1.3	1.2	1.0	0.9	0.9	0.8
PHM22	1.2	1.1	0.9	0.9	0.8	0.7	0.6

4.4.6. Demand management

The forecast demand management capacity in proximity to the greenfield growth area within the Pakenham South & surrounding supply area is presented in Table 21.

Table 21: Do nothing base case demand management capacity (MVA)

Demand management	FY26	FY27	FY28	FY29	FY30	FY31	FY32
CLN	1.7	1.7	1.7	1.7	1.7	1.7	1.7
LLG	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OFR	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHM	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLN22	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CLN23	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OFR14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OFR21	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHM21	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHM22	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Although demand management can be contracted for the assets mentioned, customer participation is voluntary. As a result, the full existing demand management capacity may not be available during peak demand. However, for energy at risk modelling, we have assumed that the full existing demand management capacity is available.

5. Potential credible options

This section outlines the potential credible options that are able to address the identified need, including a "do nothing" counterfactual option as the base case for comparing credible options. These include all substantially differing commercially and technically credible options, including non-network and SAPS solutions.

Credible options (or a group of options) are those that meet the following criteria:

- addresses the identified need,
- is (or are) commercially and technically feasible, and
- can be implemented in sufficient time to meet the identified need.

The options proposed to be analysed in this RIT-D to address the identified need in the Pakenham South & surrounding supply area are as follows:

- Option 0: Do nothing base case - no proactive investment intervention
- Option 1: Pakenham South new zone substation, and new distribution feeders
- Option 2: Third transformer and bus at Pakenham zone substation, and new distribution feeders
- Option 3: Third transformer and bus at Officer zone substation, and new distribution feeders
- Option 4: Second transformer and bus at Lang Lang zone substation, and new distribution feeders
- Option 5: Non-network and SAPS solutions

Option 1, 2, 3 and 4 are credible network solutions proposed to be assessed to address the identified need.

AusNet will also consider and evaluate any alternative, non-network or SAPS proposals that are submitted by interested parties during the RIT-D consultation, that can credibly address the identified need. This includes those that can either be combined with another solution to defer or reduce in scope credible network options being considered, and/or mitigate the EUE in the lead up to implementing a network option. These will be assessed under Option 5.

Each credible option is further elaborated in the subsequent sections.

5.1. Do nothing

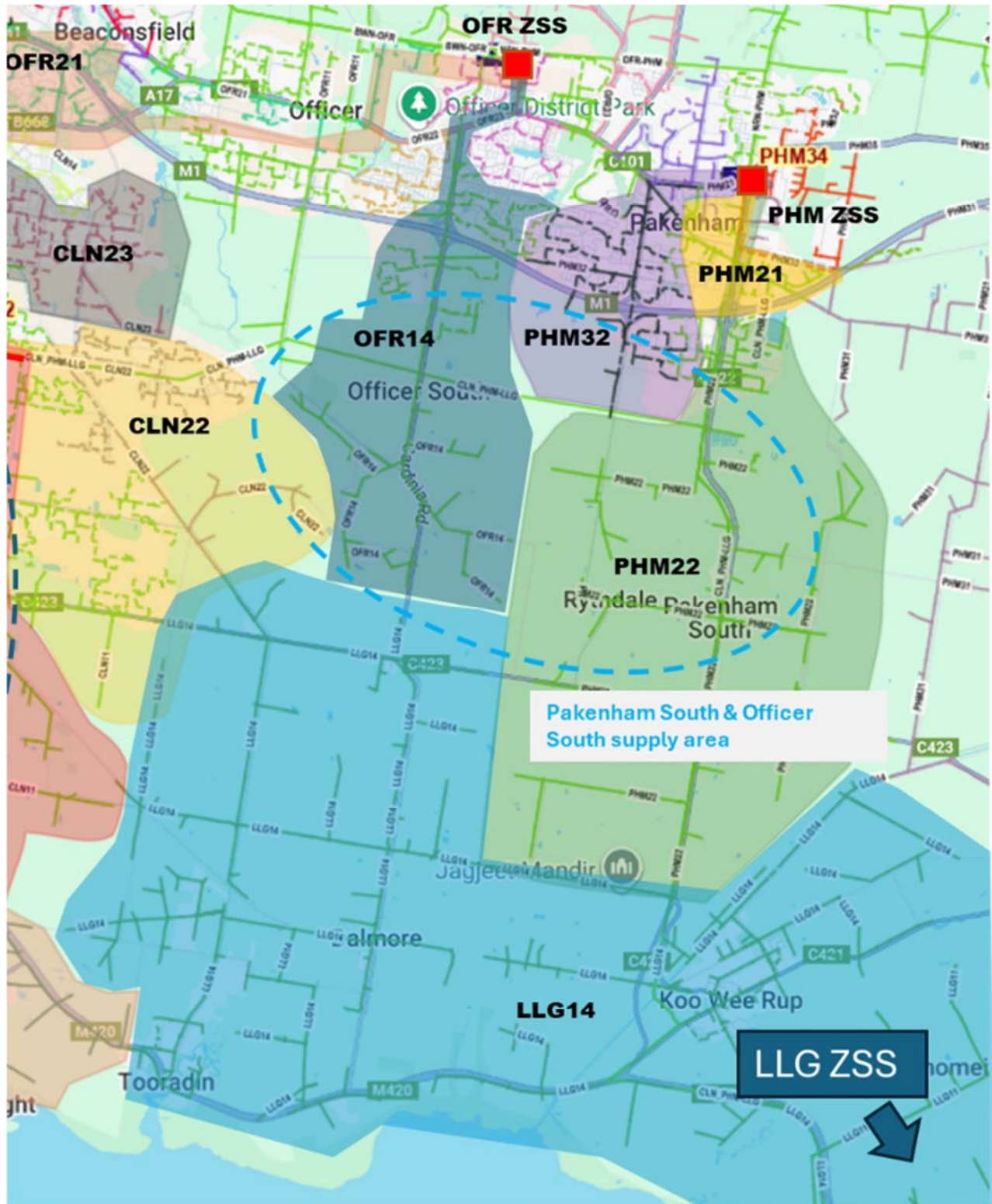
The "do nothing" option assumes that AusNet would not undertake any proactive investment, outside of normal operational and planning processes for managing peak demand and thermal overloading. This option is the counterfactual to the other options considered and establishes the base level of risk (base case) and the basis for comparing other credible options.

While this option does not entail any upfront capital costs, it exposes customers to the continuing and increasing risk of network-induced electricity supply outages, as a result of demand exceeding the available network capacity. The reliability cost of this option is represented by the EUE in Table 6.

Figure 8 presents a detailed view of the existing 22 kV distribution feeders supplying the Pakenham South & surrounding supply area.

With the forecast overloads of our existing zone substations and distribution feeders in this area (presented in Table 4 and Table 5), this option does not address the identified need.

Figure 8: Existing 22 kV network supplying the Pakenham South & surrounding supply area



5.2. Option 1: Pakenham South new zone substation, and new distribution feeders

A new zone substation at Pakenham South is proposed to meet growing maximum demand in the Pakenham South & surrounding supply area. A zone substation site (with a site yet to be acquired) near the existing tee joint of CLN–PHM–LLG 66 kV sub-transmission line, shown in Figure 9, is centrally located to mitigate most of the energy at risk in the supply area and is ideally located for connection into the existing 66 kV sub-transmission network

Figure 9: Approximate location of the proposed Pakenham South zone substation



The scope of this project is to:

- Install two new 20/33MVA, 66/22 kV power transformers. Scope includes associated civil, structural works, primary works and secondary works.
- Install two new 22 kV urban switch-room switchboards. Scope includes, associated civil, structural works, primary works and secondary works.
- Install three new 22 kV underground/overhead feeders, including associated structures and switches. Please note the additional 4th feeder is not part of this RIT-D and will be considered & assessed in the future
- Design, procure, install, and commission of all necessary primary, civil/structural, and secondary equipment for the new 66 kV line entry at remote ends.

Figure 10 presents a detailed view of the proposed new 22 kV distribution feeders supply coverage around the growth in the area after implementing this option.

- The proposed three 22 kV distribution feeders would originate from newly established zone substation at Pakenham South to pick up the load centres at North/East/South of the zone substation location.
- The feeders will take on the load from the constrained feeders PHM21, PHM22, OFR14, CLN22, CLN23, and OFR21 to supply the Pakenham South Employment Precinct, Officer Employment Precinct, and surrounding areas of Pakenham, Clyde, and Officer, which are projected to experience significant growth based on the demand forecast. The proposed Pakenham South zone substation is strategically located near these load centres, enabling efficient supply through approximately 13 km of a combination of new underground cables and reconductoring of existing overhead lines to meet the required capacity.
- The proposed feeders will serve industrial/commercial and residential loads and traverse key roads including the recently upgraded Healesville-Koo Wee Rup Road. These areas are experiencing substantial urban transformation driven by increased housing demand and residential subdivisions. The distribution feeders sections include underground installation due to strategic and operational considerations: facilitating future road expansions, ensuring safe transmission line crossings through maintained clearances and reduced electromagnetic induction, and aligning with existing infrastructure and regulatory requirements within urban residential developments.

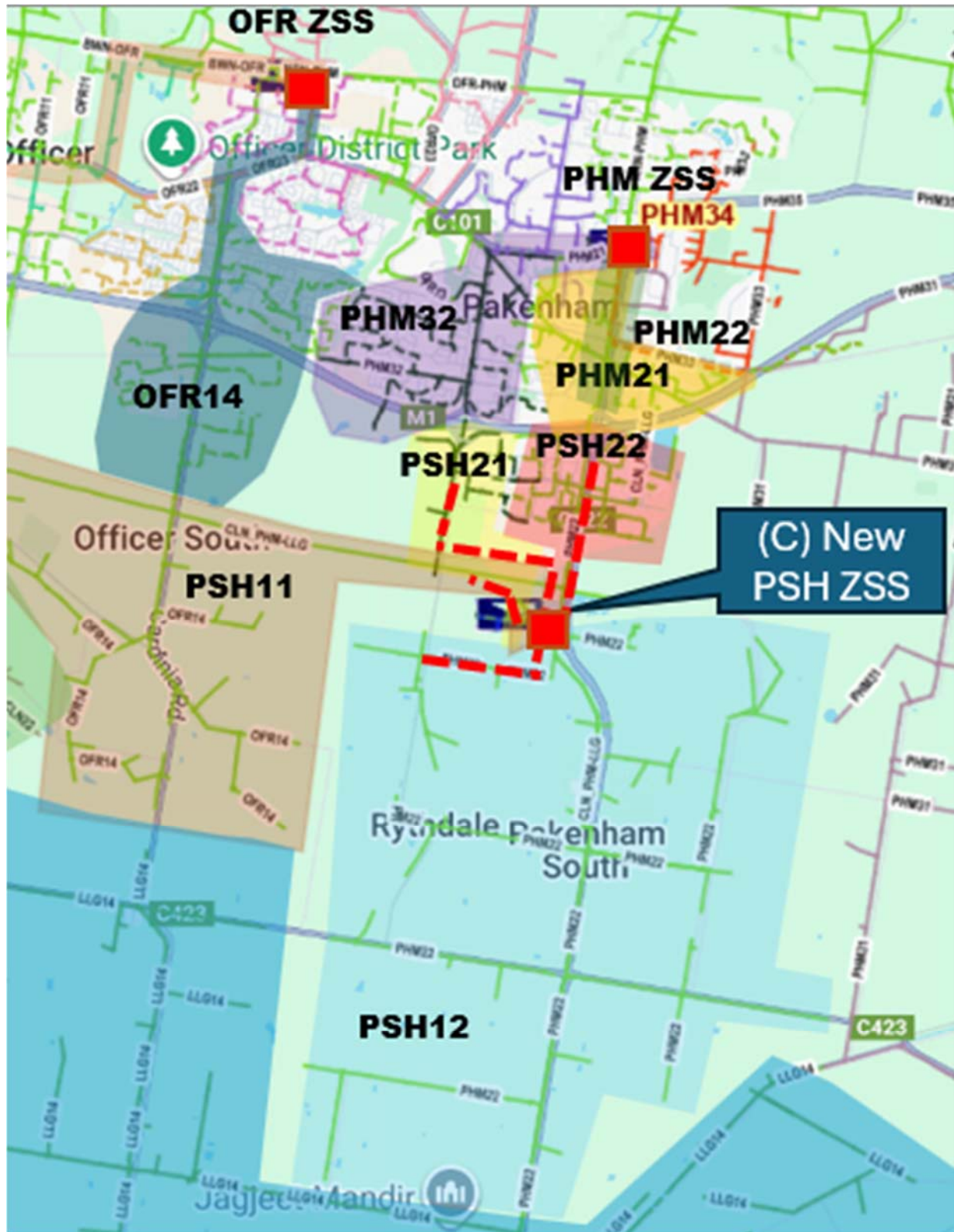
The estimated total capital cost of this option including sub-transmission, zone substation, distribution feeders and site acquisition is \$73.26 million¹⁷ (real, \$2025). In relation to O&M expenditure, annual routine maintenance expenditure would be \$0.7 million.

The optimal economic timing of this option is FY28 with anticipated commissioning by FY29.

The land acquisition costs for the proposed Pakenham South zone substation are excluded from the above cost as being progressed under a separate project.

¹⁷Present value of total costs includes both Direct + P90 Risk + Indirects

Figure 10: Proposed distribution feeder supply coverage



5.3. Option 2: Third transformer and bus at Pakenham zone substation, and new distribution feeders

This option proposes to install a third 66/22 kV 33MVA transformer and associated 22 kV bus works at PHM with three new distribution feeders from a 3rd 22 kV switch-room to provide new 22 kV feeders (as the existing 22 kV switch-rooms have no spare circuit breaker capacity). A fourth 22 kV feeder would instead be supplied from an existing spare circuit breaker at OFR zone substation.

This augmentation will reduce the energy at risk in the Pakenham South & surrounding supply area. However, this option does not fully provide a comprehensive solution for meeting new electricity demand growth given the distance that PHM is from the development areas compared to other potential locations.

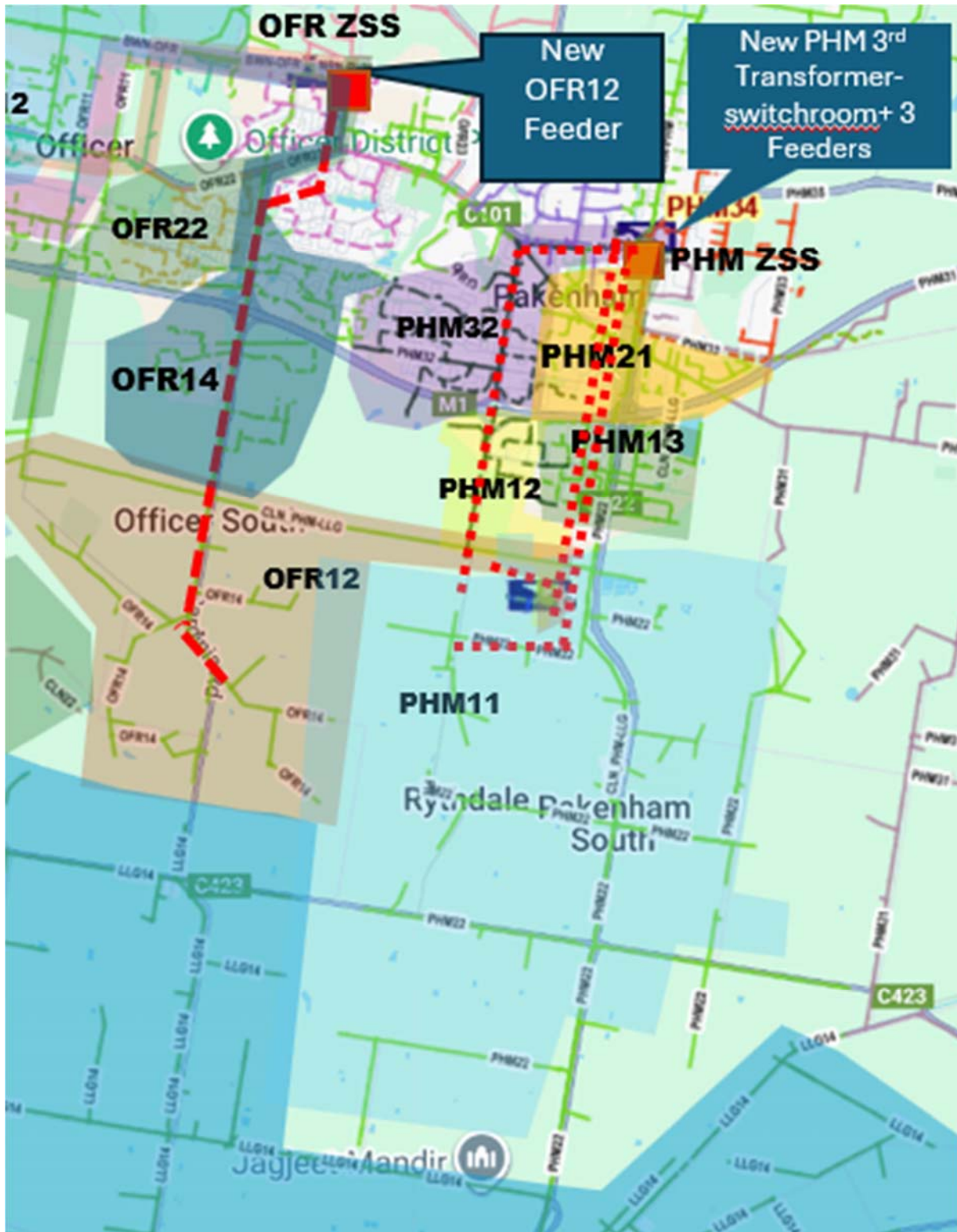
Figure 11 presents a detailed view of the proposed 22 kV distribution feeder supply coverage around the growth area after implementing this option.

- The proposed 22 kV distribution feeder works would originate from the newly established third transformer and bus at the existing Pakenham zone substation including fourth feeder from existing OFR zone substation and traverse through developed urban areas. Most feeders within the developed and underground residential subdivision areas will be installed within developed and underground residential subdivision areas, where compliance with legal requirements mandates underground installation.
- All four feeders will be of significantly longer length as the load centres are far away from existing zone substations, with load centres expansion in the future, it will become more difficult to serve the area
- This approach introduces several construction challenges, including elevated costs associated with boring, traffic management complexities, acquisition of easements, and potential disruptions to the community.
- Additionally, augmenting existing zone substations will inevitably cause temporary interruptions for current customers due to the staging and sequencing of construction activities. These works will also involve modifications to existing feeders to enable effective load management across transformers and feeder networks.

The estimated capital cost of this option including feeders is \$46.9 million (real, \$2025). In relation to O&M expenditure, annual routine maintenance expenditure would be \$0.5 million.

The optimal economic timing of this option is FY28 with anticipated commissioning by FY29.

Figure 11: Proposed distribution feeder supply coverage



5.4. Option 3: Third transformer and bus at Officer zone substation, and new distribution feeders

This option proposes installing a third 66/22 kV, 33 MVA transformer at OFR, along with the associated 22 kV bus works, and constructing three new 22 kV distribution feeders from the new third 22 kV switch-room. The existing 22 kV switch-room has only one spare 22 kV circuit breaker, which will be utilised for a fourth feeder supplied from the existing switch-room. These works collectively provide the additional 22 kV feeders required to service growing maximum demand in the Pakenham South & surrounding supply area.

This augmentation will reduce the energy at risk in the Pakenham South & surrounding supply area. However, this option does not fully provide a comprehensive solution for meeting new electricity demand growth given the distance that OFR is from the development areas compared to other potential locations.

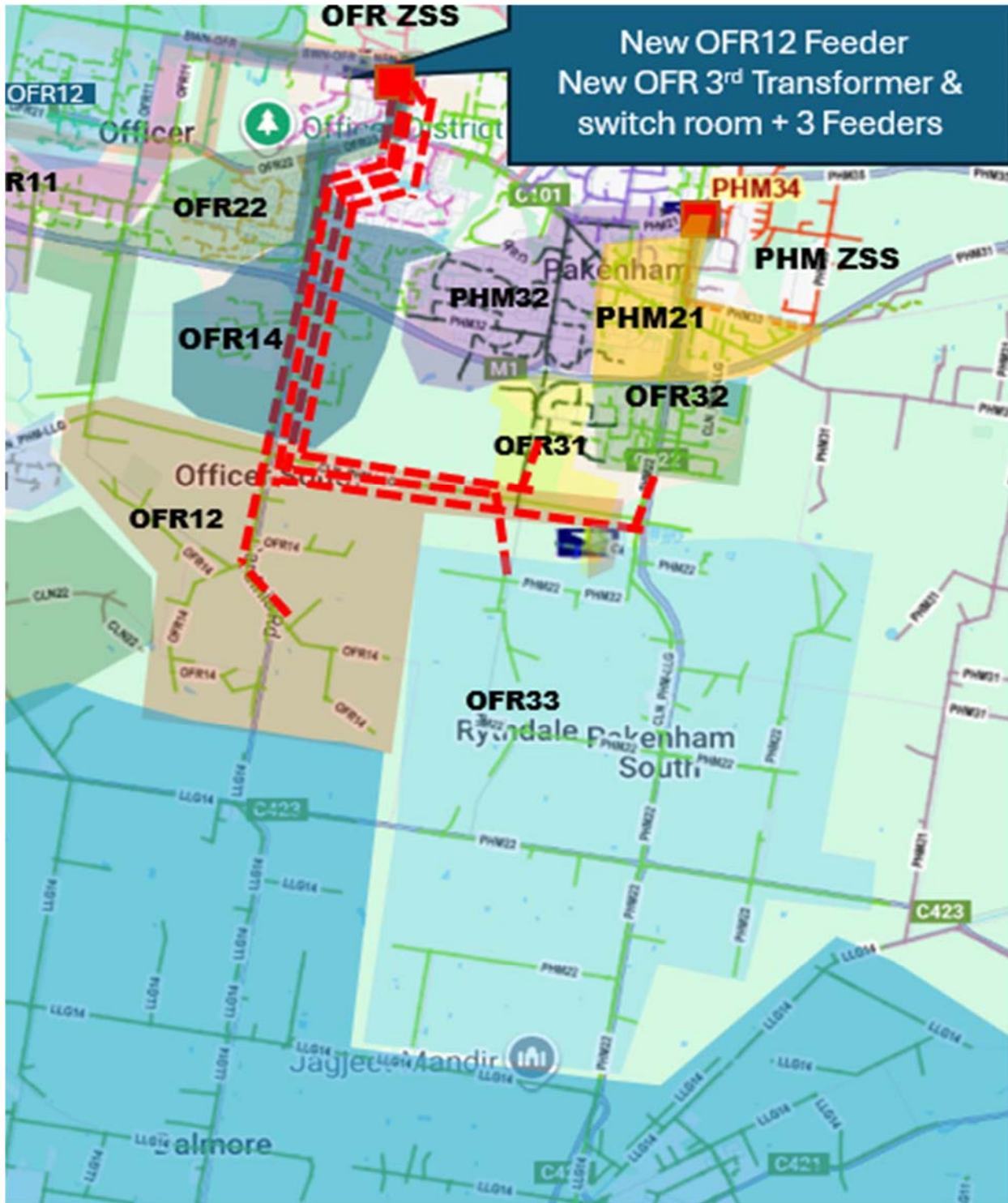
Figure 12 presents a detailed view of the proposed 22 kV distribution feeder supply coverage around the growth area after implementing this option.

- The proposed 22 kV distribution feeder works would originate from newly established third transformer and bus at the existing Officer zone substation including a fourth feeder from an existing OFR bus group and traverse through developed urban areas. Most feeders will be installed within developed and underground residential subdivision areas, where compliance with legal requirements mandates underground installation.
- All the four feeders will be of significantly longer length as the load centres are far away from existing zone substations.
- This approach introduces several construction challenges, including elevated costs associated with boring, traffic management complexities, acquisition of easements, and potential disruptions to the community.
- Additionally, augmenting existing zone substations will inevitably cause temporary interruptions for current customers due to the staging and sequencing of construction activities. These works will also involve modifications to existing feeders to enable effective load management across transformers and feeder networks.

The estimated capital cost of this option including feeders is \$64.18 million (real, \$2025). In relation to O&M expenditure, annual routine maintenance expenditure would be \$0.6 million.

The optimal economic timing of this option is FY28 with anticipated commissioning by FY29.

Figure 12: Proposed distribution feeder supply coverage



5.5. Option 4: Second transformer and bus at Lang Lang zone substation, and new distribution feeders

This option proposes to install a second 66/22 kV 33MVA transformer and associated 22 kV bus works at LLG, along with three new distribution feeders, and one 22 kV feeder supplied from the existing spare circuit breaker at OFR zone substation to address the growing energy demands in the Pakenham South & surrounding supply area.

This augmentation will eliminate the energy at risk at Lang Lang substation and will substantially reduce the expected energy at risk in the supply area. However, this option does not fully address the energy at risk at other zone substations identified, nor does it provide a comprehensive solution for meeting new electricity demand growth given the distance that LLG is from the development areas compared to other potential locations.

Figure 13 provides an overview of the Lang Lang substation and the available space to accommodate the proposed augmentation.

- The proposed 22 kV distribution feeder works would originate from newly established second transformer and bus at the existing Lang Lang zone substation, including the fourth feeder from the existing OFR zone substation and traverse through developed urban areas. Most feeders will be installed within developed and underground residential subdivision areas, where compliance with legal requirements mandates underground installation.
- All four feeders will be significantly longer length as the load centres are far away from existing zone substations and feeders from Lang Lang need to be REFCL hardened as the feeder will pass through bushfire risk areas.
- This approach introduces several construction challenges, including elevated costs associated with boring, traffic management complexities, acquisition of easements, and potential disruptions to the community.
- Additionally, augmenting existing zone substations will inevitably cause temporary interruptions for current customers due to the staging and sequencing of construction activities. These works will also involve modifications to existing feeders to enable effective load management across transformers and feeder networks.

Figure 13 : Lang Lang zone substation site



Figure 14 presents a detailed view of the proposed 22 kV distribution feeder supply coverage around the growth area after implementing this option.

The proposed 22 kV distribution feeder works would originate from newly established second transformer and bus at Lang Lang zone substation and extend along existing arterial routes to support the forecast demand in the Pakenham South and surrounding supply area. Some feeder sections are planned for underground installation due to operational considerations: staging and sequencing of construction works, community impacts etc.

The estimated capital cost of this option including feeders is \$60 million (real, \$2025). In relation to O&M expenditure, annual routine maintenance expenditure would be \$0.6 million.

The optimal economic timing of this option is FY28 with anticipated commissioning by FY29.

Figure 14: Proposed distribution feeder supply coverage



5.6. Option 5: Non-network and SAPS solutions

The NER require DNSPs to investigate non-network and SAPS options as part of the RIT-D process.

For this option, AusNet will consider and evaluate any alternative, non-network or SAPS proposals that are submitted by interested parties during this RIT-D consultation, that can credibly address the identified need. AusNet will also assess any that can be combined with another solution to defer or reduce in scope, credible network options being considered, and/or mitigate the EUE in the lead up to implementing a network option.

The following non-network solutions located at strategic locations within the Pakenham South & surrounding supply area are likely to be potentially feasible options to address the identified need (at least in part):

- New dispatchable generation;
- New renewable generation firmed up by energy storage systems;
- Demand management using customer standby generation and/or controllable load.

Without limiting the potential for non-network solutions, the following types of non-network options are unlikely to be feasible:

- Renewable generation not coupled with dispatchable generation, storage or controllable load;
- Behavioural demand response not coupled with dispatchable generation, storage or controllable load; and
- Unproven, experimental or undemonstrated technologies.

Details of the characteristics and requirements needed for a non-network or SAPS solution to address the identified need are described in the next section of this OSR.

6. Non-network or SAPS options

This section provides information regarding the non-network or SAPS services that would be required to address the identified need, including:

- The performance characteristics that a non-network or SAPS option would be required to deliver;
- The estimated maximum deferred augmentation charge that would be available to pay for the non-network service; and
- The information that a non-network proponent should provide to AusNet to explore the potential provision of a non-network service.

6.1. Required performance characteristics

Table 22 sets out the dispatchable load reduction/generation/storage capacity required from a non-network or SAPS option, located within the Pakenham South & surrounding area, by year. It also provides an indication of the maximum number of operating hours per year, and the expected amount of energy needing to be supported by the option. This information (together with Figure 4 through to Figure 7) provides an indication of the required operating profile to address the identified need in its entirety, noting that prospective non-network service providers may not be able to exactly (or fully) match these requirements to be considered a credible solution.

Table 22: Performance requirements of a non-network solution

Year	Capacity required (MVA)	Maximum duration (hrs pa)	Expected annual energy (MWh pa)
2026	11.6	382	1,775
2027	24.1	692	6,669
2028	27.6	685	7,559
2029	32.2	745	9,599
2030	35.9	808	11,605
2031	39.5	974	15,395
2032	43.8	964	16,896

A non-network or SAPS option is required to be in service no later than summer 2027-28.

A non-network option must be capable of reliably supplying or managing load under a range of conditions and scenarios. The non-network solution will contribute to reliability to the extent that it addresses the EUE risks arising from the identified need.

If the non-network option is a generator operating in parallel with AusNet's network, the generator must comply with the requirements set out in document SOP 33-05 and other connection requirements which are set out in AusNet Services' [embedded generator connections page](#).

6.2. Information to be included in non-network solution proposals

Non-network service providers interested in alleviating the network limitations quantified in this report are advised to begin engagement with AusNet as soon as possible. A detailed proposal including the information listed below should be prepared and submitted by the requested date, during the RIT-D consultation period.

Details required include:

- Name, address and contact details of the person making the submission.
- Name, address and contact details of the person responsible for non-network support (if different to above).
- A detailed description of the services to be provided, including:
 - Size and capacity (MW/MVA/MWh).
 - Location(s).
 - Frequency and duration.
 - Type of action or technology proposed, including response / ramp rate information, where applicable.
 - Proposed dispatching arrangement (e.g. telephone, web-based trigger, automated means via RTU).
 - Availability and reliability performance details.
 - Period of notice required to enable dispatch of non-network support (e.g. to allow time for charging of energy storage solutions or market-based limitations).
 - Proposed contract period and staging (if applicable).
 - Proposed timing for delivery (including timeline to plan and implement the proposal).
- High-level electrical layout of the proposed site (if applicable).
- Evidence and track record proving capability and previous experience in implementing and completing projects of the same type as the proposal.
- Preliminary assessment of the proposal's impact on the network.
- Breakdown of the lifecycle costs for providing the service, including:
 - Capital costs (if applicable).
 - Annual operating (i.e. set up and dispatch fees) and maintenance costs.
 - Other costs (e.g. availability, project establishment, etc.).
 - Tariff assumptions.
 - Expected annual payment for providing the non-network solution
- A method outlining measurement and quantification of the agreed service, including integration of the proposed solution with the network.
- A statement outlining that the non-network service provider is prepared to enter into a Network Support Agreement (**NSA**) (subject to agreeing terms and conditions).
- Letters of support from partner organisations.
- Any special conditions to be included in an NSA.

All proposals must satisfy the requirements of any applicable laws, rules, and the requirements of any relevant regulatory authority, including following the normal network connection processes where applicable. Any network reinforcement costs required to accommodate the non-network solution will typically be borne by the proponent of the non-network solution.

For further details on AusNet's process for engaging and consulting with non-network service providers, and for investigating, developing, assessing and reporting on non-network options as alternatives to network augmentation, please refer to the Non-Network Solutions and Demand Management webpages, which contain the Industry Engagement Strategy and other relevant demand management documentation:

<https://www.ausnetservices.com.au/Electricity>.

6.3. Potential payments to non-network proponents

At this stage, the preferred network option has not yet been determined. However, the maximum annualised capital expenditure that could be deferred by contractually engaging a non-network solution is \$3.6 million per annum (real, \$2025), assuming Option 1 is the preferred network option¹⁸.

The payment for a non-network solution may vary according to availability, capacity, dispatch duration and firmness of the non-network service, its ability to address the identified need, and the responses received from other non-network proponents. The actual payment to a non-network proponent will also be subject to negotiation.

AusNet welcomes the submission of non-network and SAPS proposals for review of the potential payment amount on a case-by-case basis. For more information or enquiries regarding non-network solutions to address the identified need, please email ritdconsultations@ausnetservices.com.au. In the subject field, please reference '**RIT-D OSR Pakenham South & Surrounding Areas**'.

¹⁸ \$64.6 million (excl. land) x 5.56% (AusNet WACC) p.a. = \$3.6 million p.a. (real, \$2025).

7. Submissions and next steps

7.1. Request for submissions

AusNet invites written submissions and any queries, on the matters set out in this OSR, from Registered Participants, AEMO, interested parties, non-network providers and persons registered on our industry engagement register. As explained in section 6, prospective non-network service providers interested in alleviating the network constraints outlined in this OSR are advised to begin engagement with AusNet as soon as possible.

All submissions and enquiries should be directed to:

Email: ritdconsultations@ausnetservices.com.au

Submissions are due on or before 8th May 2026, considering minimum 12 weeks time for consultation period.. and should refer to '**RIT-D OSR Pakenham South & Surrounding Areas**' in the subject heading.

Submissions will be published on AusNet's and AEMO's websites. If you do not wish to have your submission published, please clearly stipulate this at the time of lodging your submission.

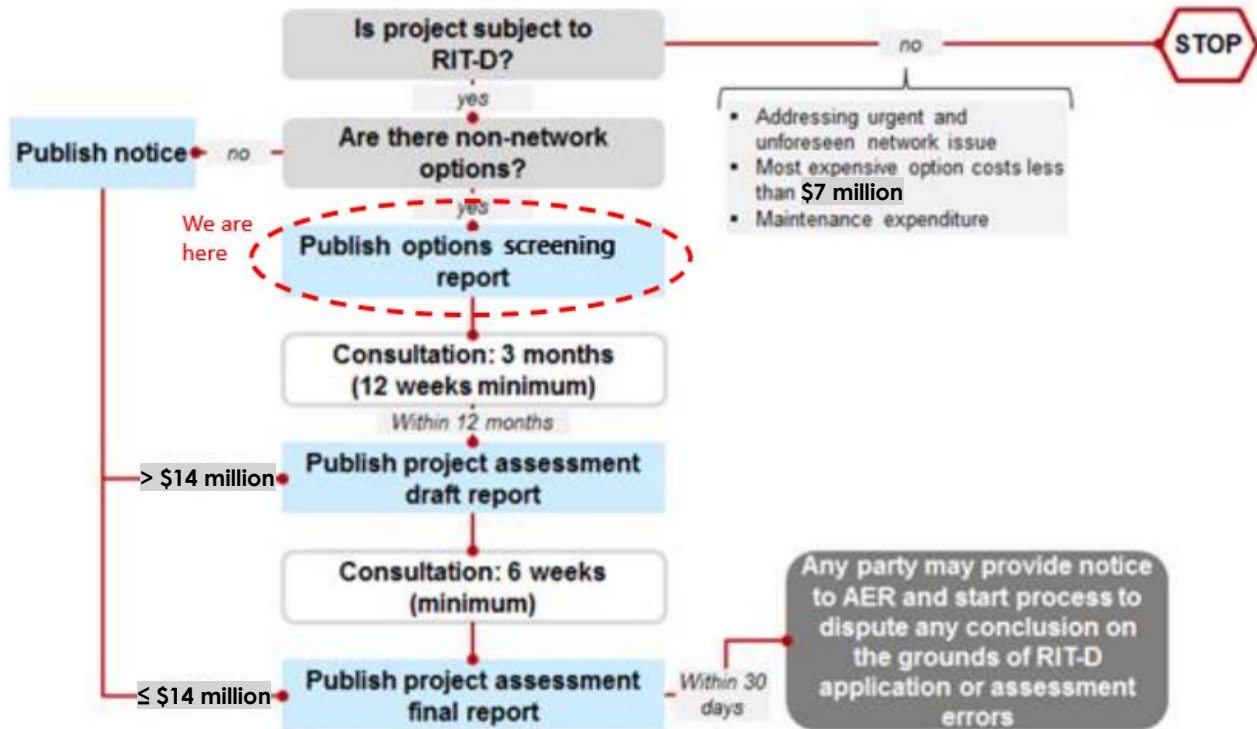
7.2. Next stage of RIT-D process

Following the conclusion of the consultation period for this OSR, AusNet will, having regard to any submissions received, prepare and publish the draft project assessment report (**DPAR**) which will include:

- A summary of, and commentary on, any submissions on this OSR.
- A detailed market benefit assessment of the proposed credible options to address the identified need.
- Identification of the proposed preferred option to meet the identified need.

AusNet expects to publish the DPAR before the end of June 2026.

A. Appendix A - RIT-D assessment and consultation process



B. Appendix B - Compliance with NER

In accordance with clause 5.17.4 of the NER, we certify that the screening for non-network and SAPS options satisfy the first stage of the RIT-D. Table 23 shows how each of these requirements have been met by the relevant section of this OSR.

Table 23: Compliance with regulatory requirements

Requirement	Section
Clause 5.17.4 of the NER, Non-network options report must include the following:	
1. a description of the identified need;	Section 4
2. the assumptions used in identifying the identified need (including, in the case of proposed reliability corrective action, why the RIT-D proponent considers reliability corrective action is necessary);	
3. if available, the relevant annual deferred augmentation charge associated with the identified need;	Section 6
4. the technical characteristics of the identified need that a non-network option or (in relation to a SAPS enabled network) a SAPS option would be required to deliver, such as:	
i. the size of load reduction or additional supply;	
ii. location;	
iii. contribution to power system security or reliability;	
iv. contribution to power system fault levels as determined under clause 4.6.1; and	
v. the operating profile;	
5. a summary of potential credible options to address the identified need, as identified by the RIT-D proponent, including network options, non-network options and (in relation to a SAPS enabled network) SAPS options.	Section 5
6. for each potential credible option, the RIT-D proponent must provide information, to the extent practicable, on:	Section 5
i. a technical definition or characteristics of the option;	
ii. the estimated construction timetable and commissioning date (where relevant); and	
iii. the total indicative cost (including capital and operating costs); and	
7. information to assist non-network providers wishing to present alternative potential credible options including details of how to submit a non-network proposal for consideration by the RIT-D proponent.	Section 7

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