
Powercor
AUSTRALIA

# AUGMENTATION

## DRYSDALE SUPPLY AREA

**PAL BUS 3.02 – PUBLIC**

**2026–31 REGULATORY PROPOSAL**

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# 1. Drysdale supply area

Drysdale is located in the centre of Melbourne's growing Bellarine Peninsula community.

The Drysdale zone substation (DDL) is served by sub-transmission lines from Geelong terminal station (GTS). It supplies the Bellarine Peninsula and coastal towns of Queenscliff, Point Lonsdale, Ocean Grove and Barwon Heads. The DDL zone substation is comprised of two 20/27/33MVA transformers operating at 66/22kV.

## 1.1 Identified need

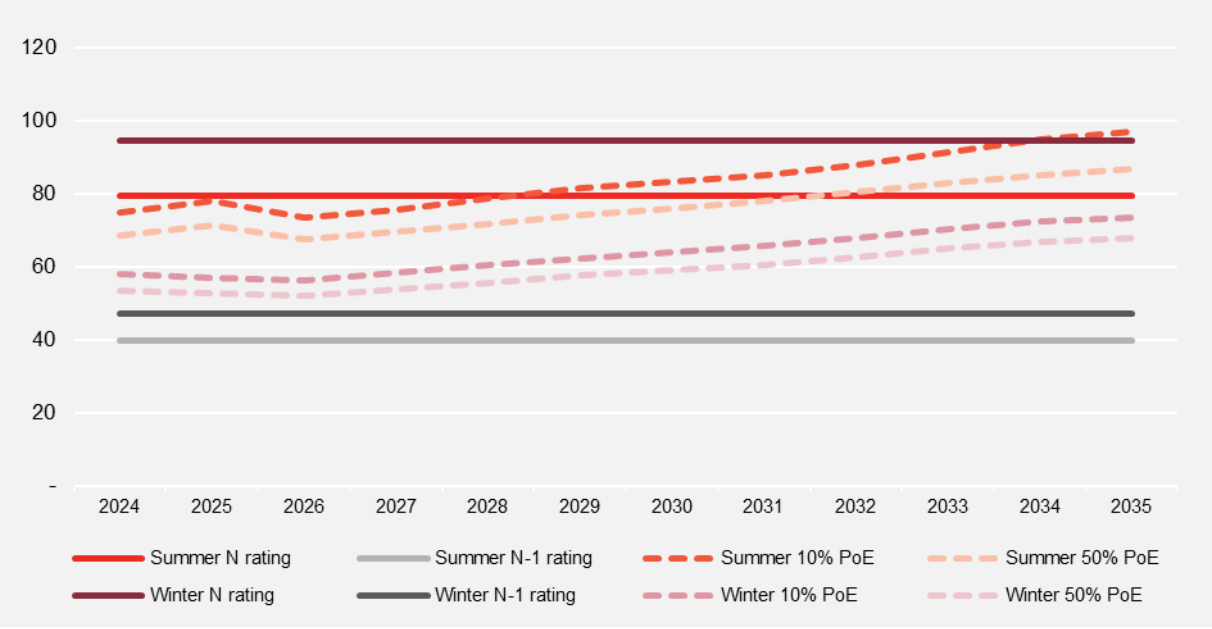
The identified need is to provide a reliable supply of electricity to customers on the Bellarine Peninsula in our Drysdale supply area as forecast residential growth and development continue.

### 1.1.1 Forecast demand

Forecast demand in the area is expected to increase in the 2026-31 regulatory period driven by ongoing electrification and population growth. Figure 1 below shows that the maximum demand at DDL in 2024 already exceeds its summer and winter N-1 thermal capacity ratings of 39.7 MVA and 47.2 MVA respectively.

Additionally, summer demand at DDL is forecast to exceed the zone substation's summer N rating of 79.4 MVA in 2028 at 10 per cent probability of exceedance and in 2032 at 50 per cent probability of exceedance.

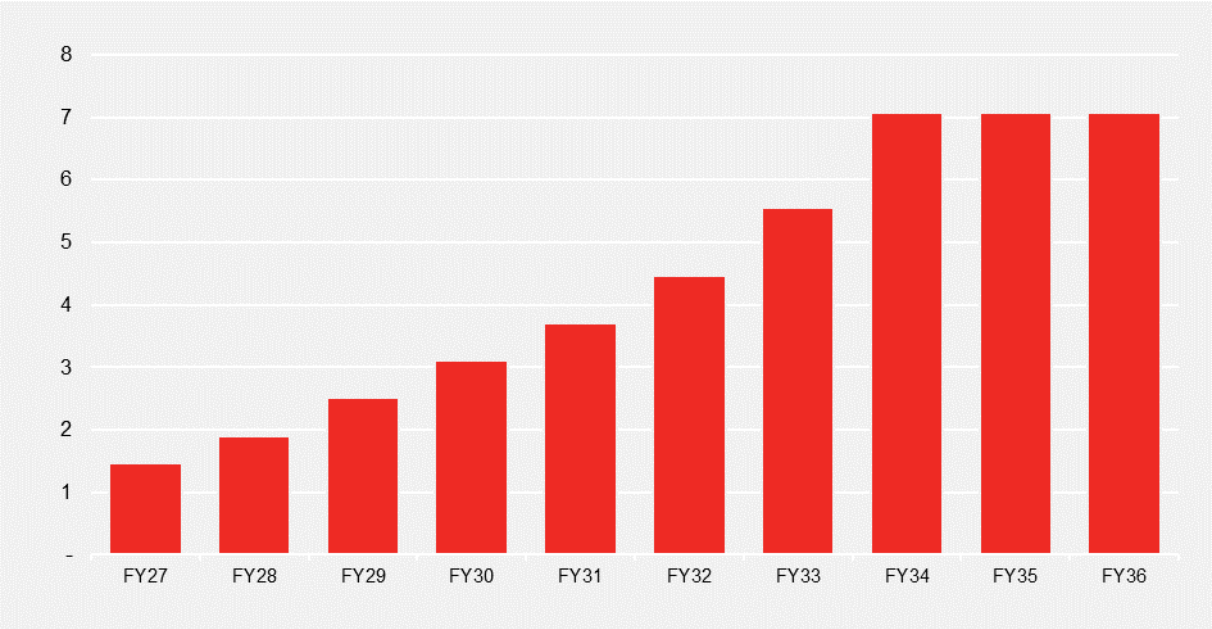
FIGURE 1 MAXIMUM DEMAND FORECAST AT DDL (MVA)



The corresponding energy at risk at DDL without investment is also shown in figure 2. Energy at risk is forecast to grow steadily throughout the 2026-31 regulatory period, followed by increases year-on-year as customer growth and electrification increases demand.

The value of expected unserved energy is based on the AER's 2023 VCR.

**FIGURE 2 VALUE OF EXPECTED UNSERVED ENERGY ($M, 2026)**



# 2. Assessment of credible options

Several options were considered to meet the forecast demand at DDL. A summary of the costs, benefits and net present value of each option considered is provided in table 1 below, with further detail provided in our attached cost-benefit modelling.[1]

**TABLE 1 OPTIONS SUMMARY ($M, 2026)**

| OPTIONS | | PV COSTS | PV BENEFITS | NET BENEFITS |
|---|---|---|---|---|
| 1 | Maintain status quo | 0 | 0 | 0 |
| 2 | Install third transformer at DDL | -4.7 | 79.7 | 75.0 |
| 3 | Install new feeders to transfer loads from DDL to GLE | -2.1 | 60.6 | 58.5 |

## 2.1 Option one: base case

The base case option to maintain the status-quo provides no mitigation to manage the energy at risk, other than through currently available operational responses such as limited load transfers. This option will lead to increased supply interruptions and greater potential asset failures as forecast loads exceed the capacity of the substation.

This option does not address the identified need to maintain a reliable electricity supply for customers within required standards.

## 2.2 Option two: install a third transformer at DDL

This option involves the installation of a third transformer at DDL zone substation to allow for greater load capacity in the zone substation's service area and would sufficiently addresses the identified need in the area.

Works on this project would commence at the beginning of the regulatory period to minimise supply disruption to customers.

The works required to implement this option include:

- installation of a new 66/22kV 20/33MVA transformer
- installation of 66kV and 22kV connections
- upgrading of existing protection, control and communication schemes to accommodate the new configuration.

The present value of expenditure required under this option and the benefits of improved capacity at DDL relative to the status quo are described in table 2 below.

[1] PAL MOD 3.03 – Drysdale supply area – Jan2025 – Public

TABLE 2 OPTION TWO: BENEFITS ASSESSMENT SUMMARY ($M 2026)

| OPTION | PV COSTS | PV BENEFITS | NET BENEFITS |
|---|---|---|---|
| Install third transformer at DDL | -4.7 | 79.7 | 75.0 |

## 2.3 Option three: install new feeders from GLE and transfer from DDL to GLE

This option addresses the identified need by installing new feeder lines from the Geelong East (GLE) zone substation to the DDL zone substation to transfer loads of up to 7.5MVA from DDL to GLE.

The works required to implement this option includes:

- Install new 22kV outdoor CB at GLE
- Construct new overhead and underground 22kV network to connect the new feeder to existing DDL 22kV distribution network.

The present value of expenditure required under this option and the benefits of installing the new feeder to transfer from DDL to GLE relative to the status quo are described in table 3 below.

TABLE 3 OPTION THREE: BENEFITS ASSESSMENT SUMMARY

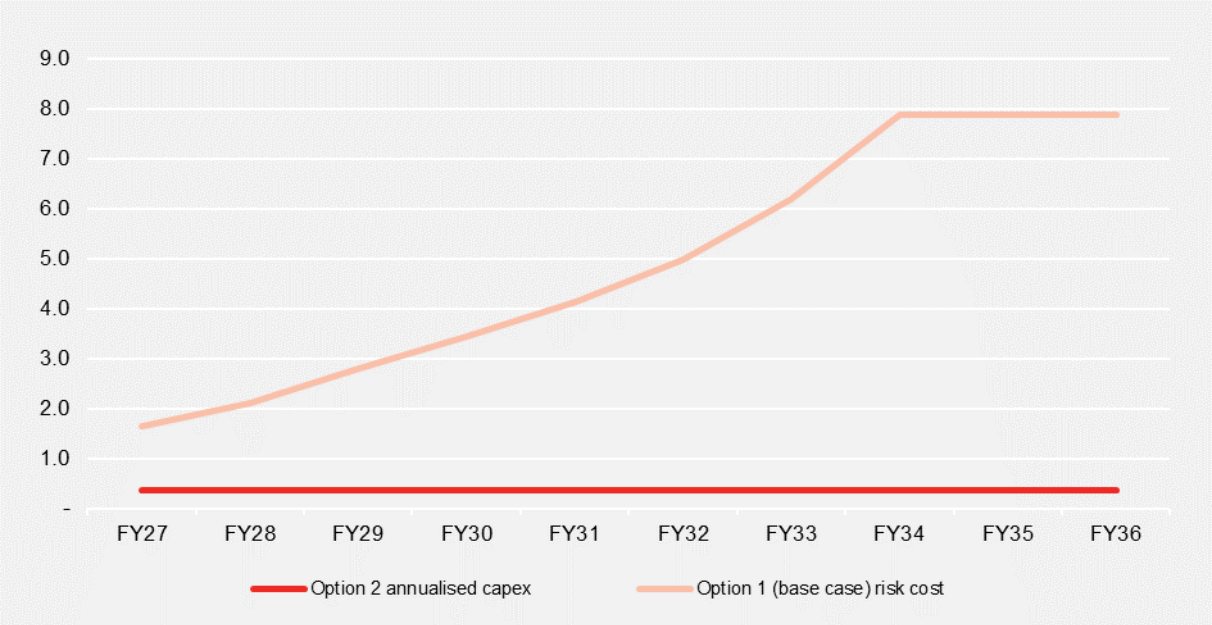
| OPTION | PV COSTS | PV BENEFITS | NET BENEFITS |
|---|---|---|---|
| Install new feeders to transfer loads from DDL to GLE | -2.1 | 60.6 | 58.5 |

# 3. Preferred option

The preferred option for the 2026–31 regulatory period is option two, to install a third transformer at DDL. This option is preferred because it addresses the identified need and provides the highest net economic benefits. Without this augmentation, there is insufficient system capacity to supply forecast demand. Our preferred option is the least cost option that maximises net benefits for our customers.

A detailed economic assessment, located in our attached cost benefit modelling,[2] of the optimal timing for option 2 shows the net economic benefits of establishing a third transformer are maximised if this project is commissioned no later than FY28, as shown in figure 3.

**FIGURE 3 TIMING OF PREFERRED OPTION ($'000 2026)**




This project will also be subject to a regulatory investment test for distribution (RIT–D) before the economic timing of the preferred network option to maximise the chance of a viable non-network solution being identified. Engagement of non-network service providers to seek alternative solutions to defer investment is a major part of the RIT-D consultation.

Table 4 shows the capital expenditure forecast for the preferred option.

**TABLE 4 EXPENDITURE FORECAST FOR PREFERRED OPTION ($M, 2026)**

| CAPITAL EXPENDITURE | FY27 | FY28 | FY29 | FY30 | FY31 | TOTAL |
|---|---|---|---|---|---|---|
| Install third transformer at DDL | 4.2 | 4.2 | - | - | - | 8.5 |

[2] PAL MOD 3.03 – Drysdale supply area – Jan2025 – Public

## 3.1 Sensitivity analysis

Sensitivity analysis was undertaken to understand the impact of increasing costs and decreasing the value of energy at risk mitigated on the net economic benefits of each option in different scenarios. Option two provides the highest net economic benefit under all scenarios and remains the preferred option. Further information on our sensitivity analysis can be found in our attached cost benefit modelling.[3]

[3] PAL MOD 3.03 – Drysdale supply area – Jan2025 – Public

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