Regulatory Investment Test for Distribution (RIT-D)

Reliability Corrective Action
The Raceview Network Area

Draft Project Assessment Report

5 December 2025

energex
Part of Energy Queensland

INTRODUCTION

Purpose

The National Electricity Rules (NER) require that, subject to certain exclusions, distribution network service providers who are looking to address an identified need, by investing in the network, must apply the regulatory investment test for distribution (RIT-D). This Draft Project Assessment Report (DPAR) has been prepared by Energex Limited (Energex) in accordance with the requirements of clause 5.17.4(j) of the NER and is published in accordance with 5.17.4(i) of the NER.

In preparing this DPAR, Energex is required to consider reasonable future scenarios. With respect to major customer loads and generation, Energex has included as much detail as possible while maintaining necessary customer confidentiality. Potential large future connections that Energex is aware of are in different stages of progress and are subject to change (including outcomes where none or all proceed). These and other customer activity can occur over the consultation period and may change the timing and/or scope of any proposed solutions.

About Energex

Energex Limited (Energex) is a subsidiary of Energy Queensland Limited and manages the electricity distribution network in the growing region of South East Queensland which includes the major urban areas of Brisbane, Gold Coast, Sunshine Coast, Logan, Ipswich, Redlands and Moreton Bay. Our electricity distribution area runs from the NSW border north to Gympie and west to the base of the Great Dividing Range.

Our electricity network consists of approximately 57,000 kilometres of powerlines and 450,000 power poles, along with associated infrastructure such as major substations and power transformers.

Today, we provide distribution services to more than 1.5 million domestic and business connections, delivering electricity to a population base of around 4 million people.

CONTENTS

1 ASSUMPTIONS AND TECHNICAL CHARACTERISTICS OF THE IDENTIFIED NEED

1.1 Existing supply arrangement

1.1.1 Geographic Region

Raceview 110/33kV Bulk Supply substation (SSRVW) is located approximately 32km south-west of Brisbane CBD, it supplies seven zone substations via 33kV feeders: Ipswich South (SSIPS), Yamanto (SSYMT), Flinders (SSFDS), Kalbar (SSKBR), Boonah (SSBNH), Roderick St (SSRST) and Booval (SSBVL). Raceview bulk supply substation provides electricity supply to approximately 35,000 predominantly residential customers in the Yamanto, West Ipswich, Churchill, Flinders View, Ripley, Debing Heights, Purga, Coolman, Peak Crossing, Harrisville, Wilsons Plain, Milora, Milbong, Kalbar, Boonah, Moogerah and Carneys Creek areas areas.

The geographical location of Energex's sub-transmission network and substations in the area is shown in Figure 1

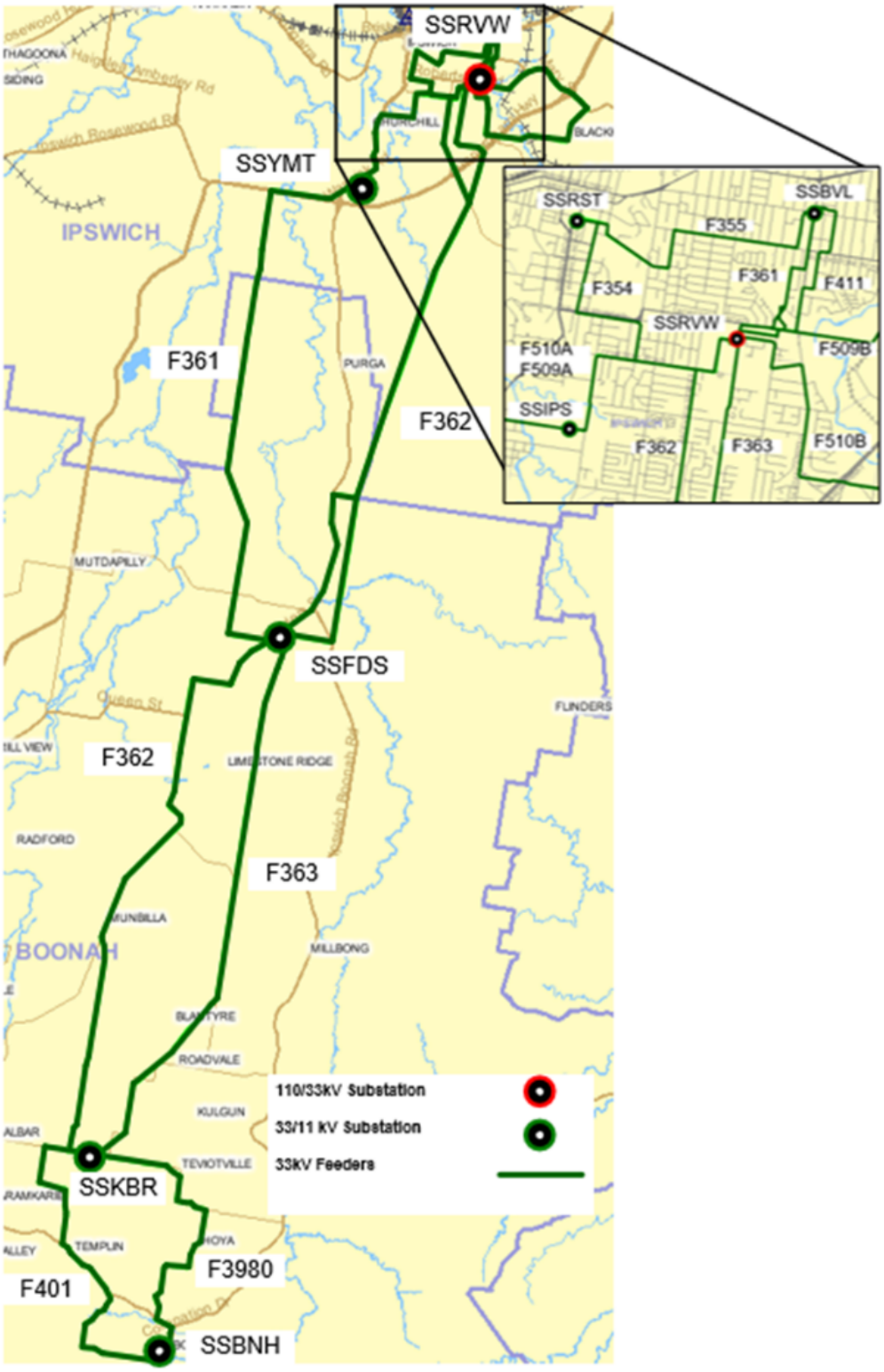


Figure 1: Existing network arrangement (geographic view)

1.1.2 Overview of Existing System

Raceview Bulk Supply substation (SSRVW) is equipped with two 60 MVA, 110/33 kV transformers (TR1 and TR3), three 33 kV outdoor buses comprising thirteen circuit breakers. SSRVW is supplied by two 110kV feeders from Powerlink's Blackstone substation (SSH72).

A schematic view of the existing sub-transmission network arrangement is shown in Figure 2.

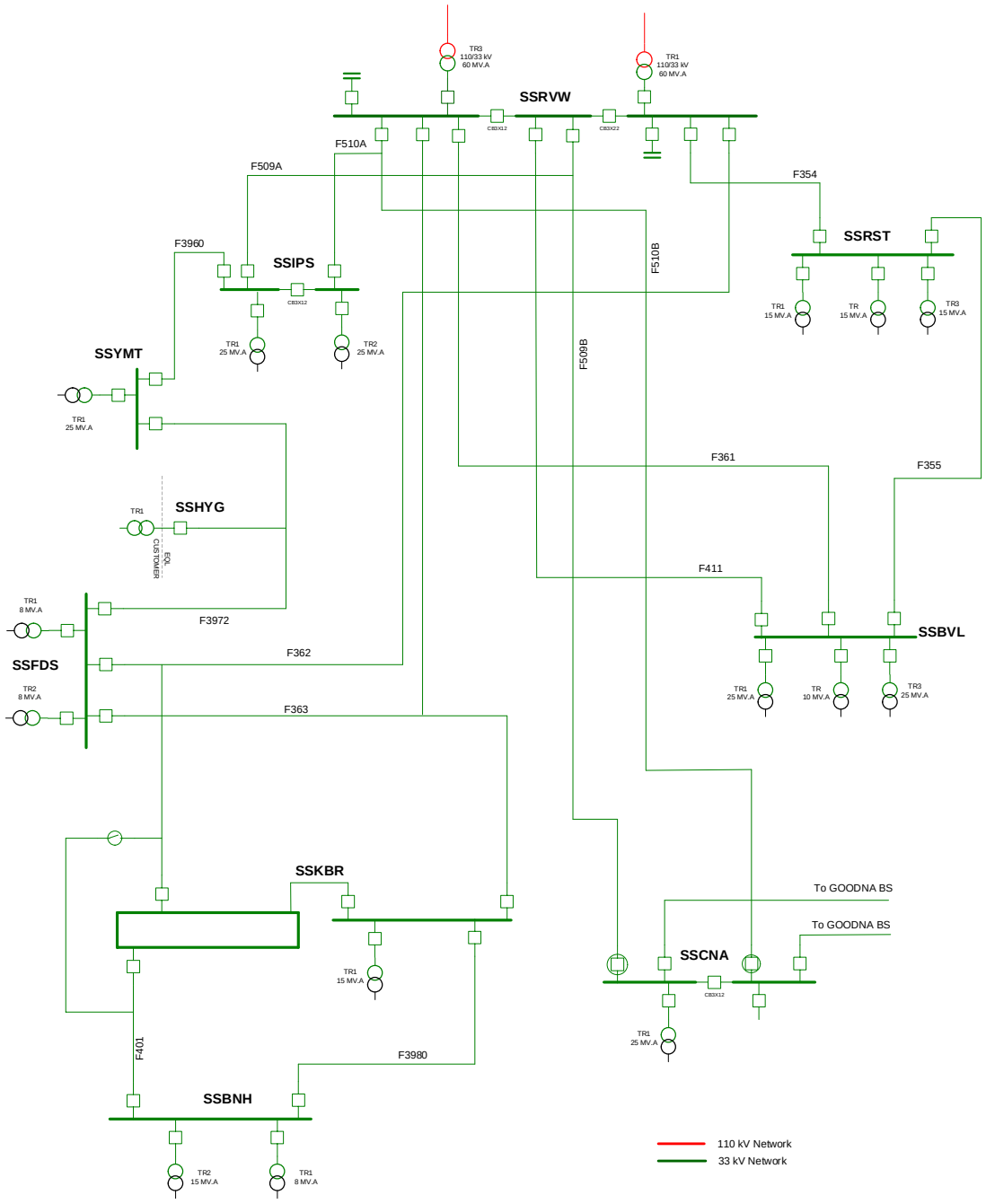


Figure 2: Existing network arrangement (schematic view)

1.2 Size of load reduction or additional supply

To meet Energex's ongoing operational needs, it is expected that any solution must provide capacity or demand reduction to the distribution network up to the forecast maximum demand as shown in the table below. Supply must be available 24 hours a day, all year round to provide continuous supply to customers in the area. For reference, the energy supplied by SSRVW in the 12 months between Oct 2024 and Sep 2025 was 382GWh with a peak demand of 112MVA.

As measured at Raceview bulk supply substation 33kV bus:

Year	Forecast maximum demand (MVA)
2029	150.5
2030	154.6
2031	156.2
2032	158.0
2033	161.3
2034	164.3
2035	166.9
2036	169.3
2037	172.0

1.3 Location

As detailed above, the location where network support and load restoration capability will be measured / referenced is on the 33kV bus at Raceview Bulk Supply Substation; however alternative options may be located downstream of the reference buses.

1.4 Contribution to power system security or reliability

The solution needs to assist Energex in complying with the safety net targets as required under its Distribution Authority to provide the level of security and reliability required. SSRVW is classified as "Urban" under the safety net. Details of the safety net targets are shown in Appendix B.

1.5 Contribution to power system fault levels

The solution must consider the fault level contribution to the network and include any mitigation works that are required due to a change in fault level. The maximum fault level on 11kV and 33kV network should not exceed 13.1kA and 25kA, respectively.

1.6 Operating profile

Refer to Section 1.2 and Appendix C for further information.

1.7 Forecast

The 10 PoE and 50 PoE load forecasts for the base case load growth scenario for Raceview bulk supply substation is illustrated in Figure 3. The historical peak load for the past six years has also been included in the graph.

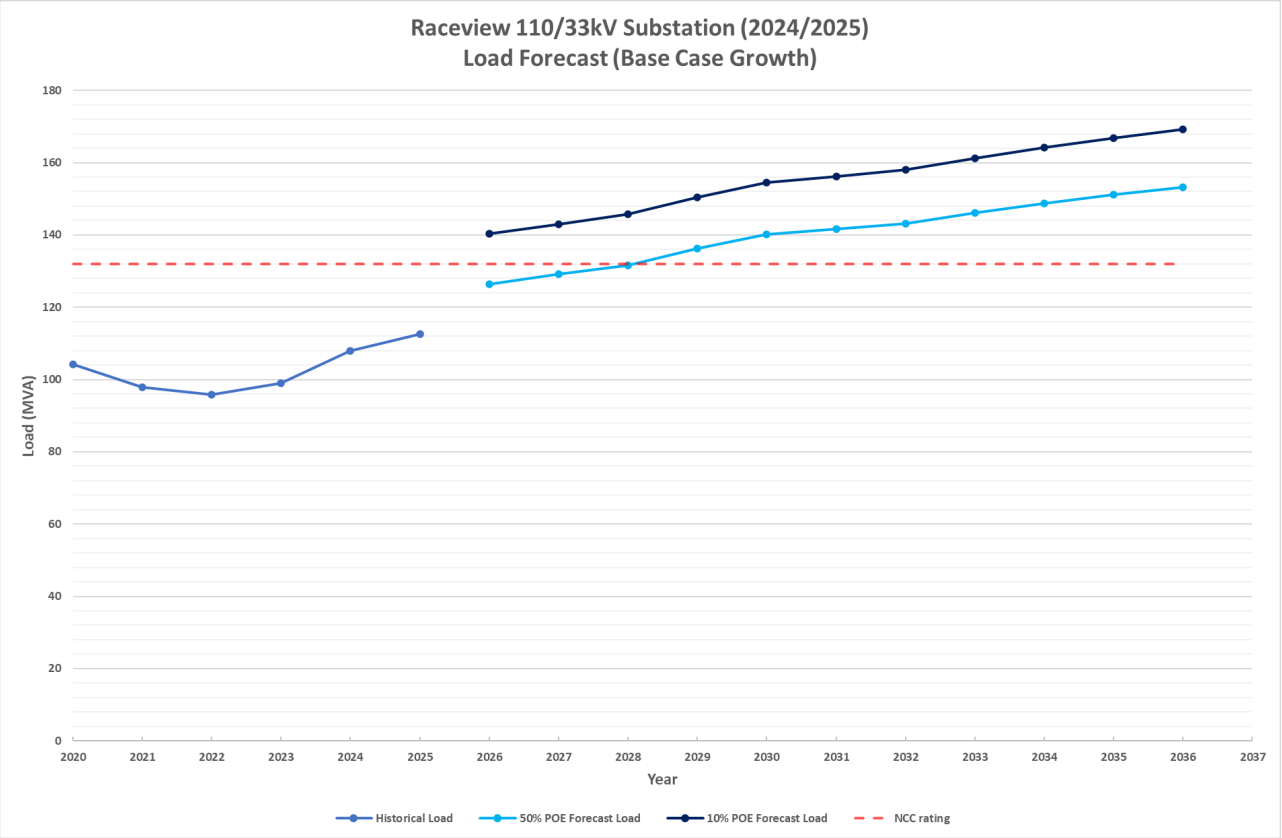


Figure 3: Raceview bulk supply Substation load forecast

2 IDENTIFIED NEED

A recent condition assessment has highlighted that a number of critical assets at SSRVW are at end of life and are in poor condition. The condition of these assets presents a considerable safety, environmental and reliability risk. These assets include:

- Two 110/33kV transformers, TR1 and TR3
- Three 33kV circuit breakers, CB3T12, CB3T32 and CB3X22
- Various protection relays

Deterioration of these primary and secondary system assets poses safety risks to staff working within the switchyard. There is also a considerable risk of environmental harm due to tank rupture and oil spill from the transformers and circuit breakers, which would require clean up and rectification.

The poor condition of these assets significantly increases the likelihood of outages, resulting in a reduction in the level of reliability experienced by the customers supplied from Raceview Substation.

Furthermore, the forecast load at Raceview Bulk Supply substation (SSRVW) will exceed the transformer capacities in the coming years.

The identified need is for reliability corrective action to ensure that reliability of supply and service obligations are maintained to customers in the Raceview network area. Under applicable regulatory instruments, Energex is required to connect new customers and maintain the reliability of supply to these customers. To ensure that Energex can continue to meet these requirements, reliability corrective action is required by 2029. If this does not occur, Energex estimates the probability of failure to comply with regulatory requirements is deemed to have reached unacceptably high levels.

Investment in Energex's network is required to continue to meet the following service standards and regulatory requirements.

- *Electrical Safety Act 2002* (Qld) – Under Section 29 and 30, Energex has a duty of care to ensure that its works are electrically safe and are operated in a way that is electrically safe. This duty also extends to ensuring the electrical safety of all persons and property likely to be affected by the electrical work.
- *National Energy Retail Law (Queensland)* – Under Part 3, Division 2, Energex has an obligation to provide customers connection service for the premises of a customer who requests those services to be connected to the distribution system.
- Energex's Distribution Authority issued under the *Electricity Act 1994* (Qld) – Under Clause 10, Energex is required to design, plan and operate its network to meet the service safety net, which aims to mitigate the risk of low probability-high consequence network outages to avoid unexpected customer hardship and/or significant community or economic disruption. The safety net has specific outage restoration timeframe targets that Energex is required to achieve. Details of the safety net targets are shown in Appendix B.

If Energex did not invest to address this identified need, it may result in a breach of these regulatory obligations, due to:

- Continuation of deteriorated plant in operation heightens the risks of injury to people. This may place Energex in breach of *Electrical Safety Act 2002* (Qld) Section 29 and 30.
- Insufficient capacities from the Year 2028 onwards at Raceview bulk supply substation (SSRVW), which limits Energex's ability to connect new customers to the distribution system. This may place Energex in breach of the *National Energy Retail Law (Queensland)* Part 3, Division 2.
- The failure of a transformer at SSRVW can result in many customers without power and supply cannot be restored within the timeframes stipulated under the safety net targets in the Distribution Authority.

Therefore, Energex considers that reliability corrective actions in the Raceview area are necessary.

2.1 Associated Relevant Annual Deferred Augmentation Charge

A present value analysis of the costs associated with the preferred option show that there is a saving of approximately $0.6 million for each year the proposed augmentation cost is deferred.

3 POTENTIAL CREDIBLE OPTIONS

3.1 Credible Options Identified

Energex has considered all options that could reasonably be classified as a credible option without bias to energy source, technology, ownership and whether it is a network option, a non-network option or a SAPS option.

Energex has identified the following potential credible options that are commercially and technically feasible and can be implemented in an appropriate timeframe to address the identified need. All costs and benefits for each credible option have been measured against a 'business as usual' base case.

3.1.1 Option A: Replace 110/33kV Transformers TR1/TR3 with 120 MVA Units and Install 2 X 33kV CBs per Transformer

This option involves works at SSRVW:

- Installation of 2 X 120 MVA, 110/33kV transformers with NEXs to replace TR1 and TR3
- Installation of 2 X 33kV CBs and associated isolators for each transformer and replacement of 33kV bus section circuit breaker CB3X22
- Installation of 2 X 33kV VTs for new transformers
- Upgrade/Install protection panels for new transformers
- Replace end of life relays at SSRVW and at associated remote end substations.

A schematic diagram of the proposed network arrangement for Option A is shown in Figure 4 .

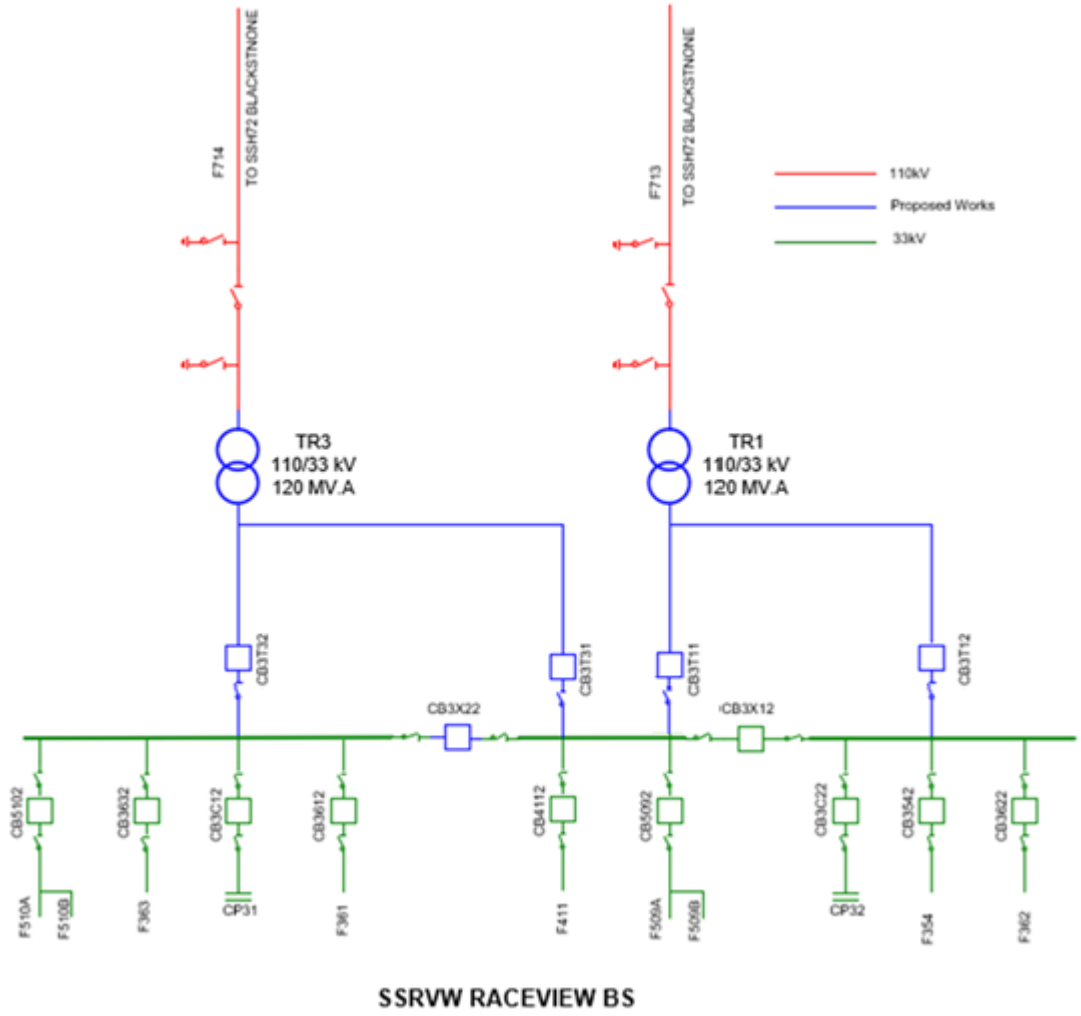


Figure 4: Option A proposed network arrangement (schematic view)

This option is commercially and technically feasible, can be implemented in the timeframe identified and would address the identified need by replacing deteriorating assets and providing additional capacity to the Raceview area, which enables Energex to connect new customers to the distribution network. This will enable Energex to meet the reliability requirements as stipulated in the safety net targets of Energex's Distribution Authority.

The estimated capital cost of this option would be $19.4 million. The estimated operating costs of this option would be $8,000 a year. The estimated delivery timeline of this option would be 2029.

The estimated construction timetable is:

- Construction start: 2027
- Commissioning: 2029

The estimated costs comprise the following components:

- financial costs incurred in constructing or providing the credible option (including early engagement on the potential connection requirements and costs of each option)

- other operating and maintenance costs during the assessment period; and
- costs of complying with relevant laws, regulations and administrative requirements

The scope of works at SSRVW are being contained within the existing site. Given the reliability and economic benefits of this option to the local community, there are not expected to be social licence issues with this option. No additional costs to manage or increase the delivery timeline have been considered in the evaluation of this option.

3.1.2 Option B: Replace 110/33kV Transformers TR1/TR3 with 120 MVA Units and Upgrade 33kV Bus to 2000A

This option involves works at SSSRVW:

- Install 120 MVA, 110/33kV transformers with NEXs to replace TR1 and TR3
- Replace 110/33kV transformer 33kV CBs and associated isolators with ratings suitable for 120 MVA transformers.
- Upgrade 33kV bus BB31, BB32 and BB33 to 2000A.
- Replace 33kV bus section circuit breaker CB3X12, CB3X22 and associated isolators
- Install 2 X 33kV VTs for new transformers.
- Upgrade/Install Protection panels for new transformers.
- Replace end of life relays at SSRVW and at associated remote end substations.

A schematic diagram with the proposed network arrangement for Option B is shown in Figure 5 .

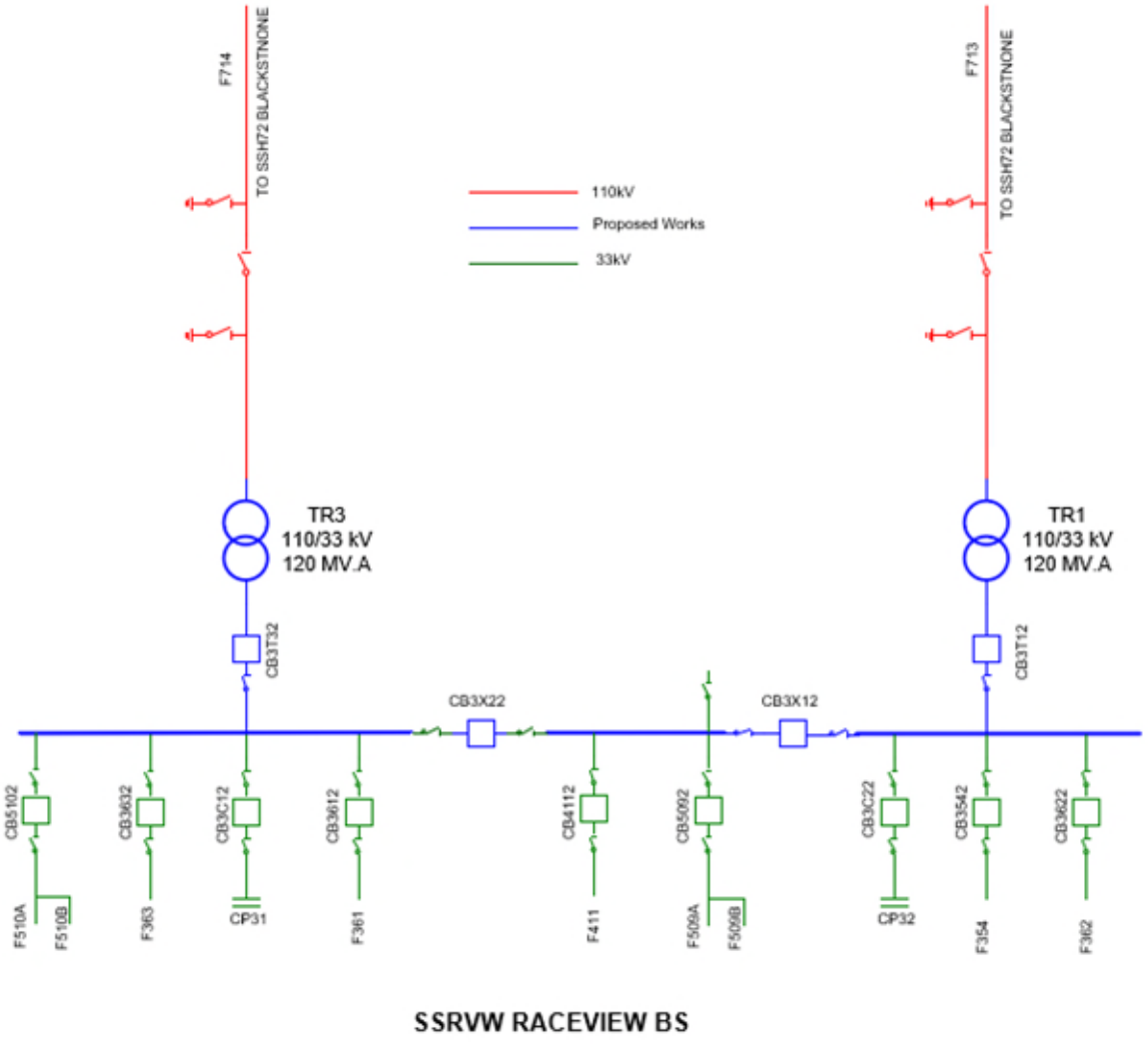


Figure 5: Option B proposed network arrangement (schematic view)

This option is commercially and technically feasible, can be implemented in the timeframe identified and would address the identified need by replacing deteriorating assets and increasing capacity at the Raceview areas, which enables Energex to connect new customers to the distribution network. This will enable Energex to meet the reliability requirements as stipulated in the safety net targets of Energex's Distribution Authority.

The estimated capital cost of this option would be $21.0 million. The estimated operating costs of this option would be $7,800 a year. The estimated commissioning date of this option would be 2029.

The estimated construction timetable is:

- Construction start: 2027
- Commissioning: 2029

The estimated costs comprise the following components:

- financial costs incurred in constructing or providing the credible option (including early engagement on the potential connection requirements and costs of each option)
- other operating and maintenance costs during the assessment period; and
- costs of complying with relevant laws, regulations and administrative requirements

The scope of works at SSRVW are being contained within the existing site. Given the reliability and economic benefits of this option to the local community, there are not expected to be social licence issues with this option. No additional costs to manage or increase the delivery timeline have been considered in the evaluation of this option.

4 QUANTIFICATION OF MARKET BENEFITS FOR EACH CREDIBLE OPTION

Energex has analysed the following classes of market benefits.

4.1 Changes in Voluntary Load Curtailment

There are no customers on voluntary load curtailment agreements in the study area, therefore, Energex has determined that there will be no material change in this class of market benefit for any of the potential credible options.

4.2 Changes in Involuntary load shedding and Customer Interruptions

Involuntary load shedding is where a customer's load is interrupted from the network without their agreement or prior warning. Energex has forecast load over the assessment period and has quantified the expected unserved energy by comparing forecast load to network capabilities under system normal and network outage conditions. A reduction in involuntary load shedding expected from an option, relative to the base case, results in a positive contribution to the market benefits of the credible option being assessed.

Involuntary load shedding of a credible option is derived by the quantity in kWh of involuntary load shedding required assuming the credible option is completed multiplied by the Value of Customer Reliability (VCR). The VCR is measured in dollars per kWh and is used as a proxy to evaluate the economic impact of unserved energy on customers under the RIT-D.

Customer export Curtailment value (CECV) represents the detriment to all customers from the curtailment of DER export (e.g. rooftop solar PV systems). A reduction in curtailment due to implementing a credible option result in a positive contribution to the market benefits of that option. These benefits have been calculated according to the AER CECV methodology based on the capacity of DER currently installed and forecast to be installed within the study area.

4.3 Changes in Costs for Other Parties

Energex has determined that there will be no material change in costs incurred by other parties due to any of the potential credible options.

4.4 Differences in the Timing of Expenditure

The potential credible options included in this RIT-D assessment are not expected to affect the timing of other distribution investments for unrelated identified needs. Energex has determined that there will be no material change in this class of market benefit for any of the potential credible options.

4.5 Changes in load transfer capacity and the capacity of distribution connected units to take up load

The potential credible options included in this RIT-D assessment will increase the load transfer capacity in the Raceview distribution network as well as increasing the hosting capacity for distribution connected embedded generators. The market benefits gained from increased load

transfer capability and/or the ability of embedded generators to take up load is treated in the same way as changes in involuntary load shedding and customer interruptions.

4.6 Additional Option Value

Energex has not identified any additional option value that would result in a material change in market benefit.

4.7 Changes in Electrical Energy Losses

Energex does not anticipate that the credible options included in the RIT-D assessment will lead to any significant change in the network losses.

4.8 Changes in Australia's Greenhouse Gas Emissions

Energex has determined that the change in Australia's greenhouse gas emissions for any of the potential credible options do not result in a material change in market benefit.

5 NPV ANALYSIS OF EACH CREDIBLE OPTION

This section outlines the methodology applied in assessing the market benefits and costs associated with each potential credible option.

The RIT-D requires Energex to identify the credible option that maximises the present value of net economic benefit to all who produce, consume and transport electricity in the National Electricity Market. Accordingly, a base case Net Present Value (NPV) comparison of the potential credible options has been undertaken. A sensitivity analysis was then conducted to establish the option that remained the lowest cost option in the scenarios considered.

5.1 Overview of Analysis Framework

All costs and benefits for each credible option have been measured against a 'business as usual' base case. Under this base case, Energex would not be compliant with its requirements under applicable regulatory instruments. The base case is therefore not a realistic state of the world.

The RIT-D analysis has been undertaken over a 15-year period, from 2025 to 2040. Energex considers this period is appropriate as it takes into account the size, complexity and forecast growth of the area to provide a reasonable indication of the market benefits and costs of the options.

Where the capital components of the credible options have asset lives greater than 15 years, Energex has taken a terminal value approach to incorporate capital costs in the assessment, which ensures that the capital cost of long-lived options is appropriately captured in the 15 year assessment period. The terminal value has been calculated as the undepreciated value of capital costs at the end of the analysis period.

Energex has adopted a real, pre-tax discount rate of 3.69% as the central assumption for the NPV analysis, this aligns with the latest AER Final Decision for a Distribution Network Service Provider's (DNSP's) regulated weighted average cost of capital (WACC) at the time of preparing this DPAR. To test the results against variations in the discount rate, an upper value sensitivity of 4.69% and a lower value sensitivity of 2.69% have been adopted for this RIT-D.

5.2 Estimating the Costs of each Potential Credible Option

Energex uses a combination of comparative and standard cost estimating methodologies, underpinned by a bottom-up approach as the basis for the estimation process of individual projects, which provides the platform for the development of forecast capital and operating expenditure.

Standard cost estimation forms the basis of typical larger, lower volume high complexity type network projects. With this approach, the most common network configurations associated with transmission, sub-transmission and distribution project types or components are catered for, incorporating the experience and knowledge of agreed engineered standard ways of construction of network components. These cover a wide range of activities and are adjusted on application to cater for site specific identified requirements through a bottom-up quantification of project scope and application.

Comparative costing is used where a statistically significant historical sample size exists, whereby actual project or program costs are reconciled and assessed. This approached is used in determining the operating costs.

Energex has estimated the capital and operating costs of each potential credible option which is inclusive of the following components:

- All material costs.
- All labour costs incurred in delivery of the project (e.g. planning, design, construction, commissioning, network operations, and project management).
- All contractor costs incurred.
- Ancillary cost such as location allowances, environmental offsets.

5.3 Sensitivity Analysis

A sensitivity analysis was conducted to establish the option that remained the lowest cost option in the scenarios considered.

Table 1 outlines the major sensitivities analysed within the Monte-Carlo analysis which was undertaken to assess the sensitivity to a change in parameters of the NPV model.

Parameter	Mode Value	Lower Bound	Upper Bound
Discount Rate	3.69%	2.69%	4.69%
Project Costs	Standard estimates	-40%	+40%
Opex Costs	Comparative estimates	-10%	+10%

Table 1: Economic parameters and sensitivity analysis factors

5.4 Considered Scenarios

The only scenario that has been considered is the base case load forecast. The low or high growth scenarios have not been considered due to the deteriorated conditions of the equipment to be replaced at Raceview bulk supply substation. As a result, alternative scenarios have no impact to the timings of the identified needs.

5.5 Ranking of Credible Options

The table below summarises the costs and benefits relative to the counterfactual, of the potential credible options in present value terms. The counterfactual is the continual operation of the existing network without augmentation and assuming load growth is lower than the forecast.

Option	Option Name	Rank	Initial Capital Cost ($ million)	Net Economic Benefit ($ million)	PV of Capex ($ million)	PV of Opex ($ million)	PV of Benefits ($ million)
A	Replace 110/33kV Transformers TR1/TR3 with 120 MVA Units and Install 2 X 33kV CBs per Transformer	1	$19.4	-$6.78	-$8.40	-$0.08	$1.7
B	Replace 110/33kV Transformers TR1/TR3 with 120 MVA Units and Upgrade 33kV Bus to 2000A	2	$21.0	-$7.44	-$9.07	-$0.07	$1.7

Table 2: Present value analysis and ranking of credible options

The table below summarises the results of the sensitivity analysis.

Option	Option Name	Rank	Occurrence out of 3000 iterations
A	Replace 110/33kV Transformers TR1/TR3 with 120 MVA Units and Install 2 X 33kV CBs per Transformer	1	70%
		2	30%
B	Replace 110/33kV Transformers TR1/TR3 with 120 MVA Units and Upgrade 33kV Bus to 2000A	1	30%
		2	70%

Table 3: Summary of sensitivity analysis results

6 PREFERRED OPTION

Option A has been identified as the preferred option, and it satisfies the regulatory investment test for distribution. This option maximises the present value of the net economic benefit.

This statement is made on the basis of the detailed analysis set out in this DPAR. The preferred option is the credible option that has the highest net economic benefit under the most likely reasonable scenario.

7 SOCIAL LICENCE AND COMMUNITY ENGAGEMENT

7.1 Social Licence

Energex has not identified any social licence considerations that have affected the identification and selection of credible options to address the identified need. The scope of works at SSRVW is being contained within the existing sites. Given the reliability and economic benefits to the local community, there are not expected to be social licence issues.

7.2 Community Engagement

As the scope of works for the preferred option will not extend into new areas of the community and will be entirely contained within the existing site owned by Energex, it is not expected to cause any disruption to the community at large. As a result, we have not identified any community stakeholders who might reasonably be expected to be affected by the development of this project. While Energex does not anticipate any community stakeholder concerns, should any be identified, these would be addressed as part of the Energex Community Engagement Framework which is integrated into the project workflow.

8 REQUEST FOR SUBMISSIONS

Energex engages with customers and demand management providers to develop and implement demand side, non-network and SAPS solutions in accordance with our Industry Engagement Document.[1]

Energex invites written submissions on the matters set out in this DPAR, including the proposed preferred option, from registered participants, AEMO, interested parties, non-network providers and persons registered on Energex's industry engagement register.

Energex will not be legally bound in any way or otherwise obligated to any person who may receive this DPAR or to any person who may provide a submission. At no time will Energex be liable for any costs incurred by a proponent in the assessment of this DPAR, any site visits, obtainment of further information from Energex or the preparation by a proponent of a proposal to address the identified need specified in this DPAR.

For any queries in relation to this DPAR, please contact:

E: demandmanagement@energex.com.au
P: 13 12 53

Submissions in writing are due by 4pm on the 20th January 2026 and should be lodged to demandmanagement@energex.com.au

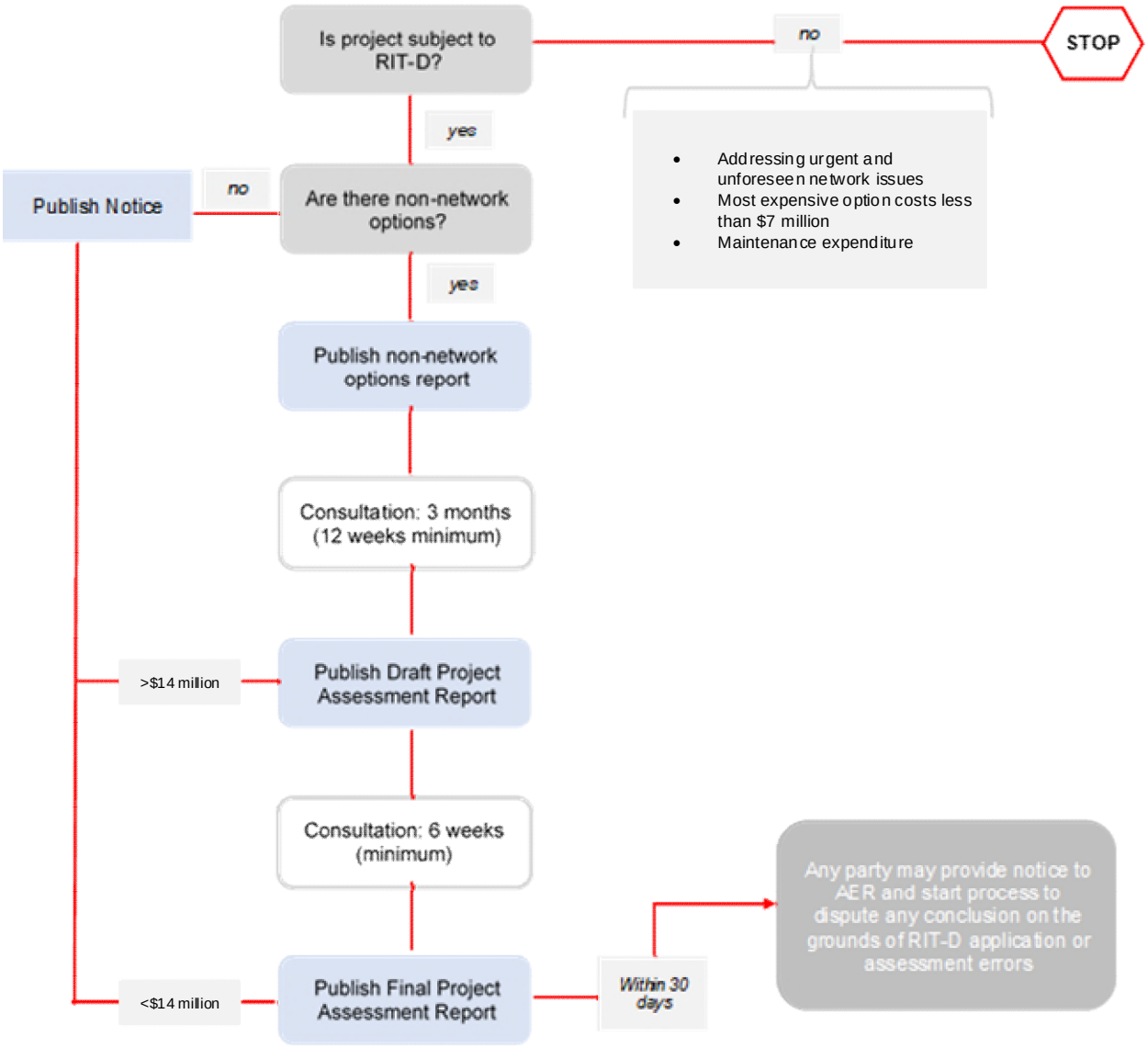
[1] Available at: https://www.energex.com.au/__data/assets/pdf_file/0020/1005725/Industry-Engagement-Document.pdf

9 COMPLIANCE STATEMENT

This DPAR complies with the requirements of clause 5.17.4(j) of the NER as demonstrated below:

Requirement	Report Section
(1) a description of the identified need for investment;	2
(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;	1 and 2
(3) if applicable, a summary of, and commentary on, the submissions received on the Options Screening Report;	N/A
(4) a description of each credible option assessed	3
(5) where a *Distribution Network Service Provider* has quantified market benefits in accordance with clause 5.17.1(d), a quantification of each applicable market benefit of each credible option	4 and 5
(6) a quantification of each applicable cost for each credible option, including a breakdown of operating and capital expenditure	3
(7) a detailed description of the methodologies used in quantifying each class of costs or market benefit	4
(8) where relevant, the reasons why the RIT-D proponent has determined that a class or classes of market benefits or costs do not apply to a credible option	4
(9) the results of a NPV analysis of each credible option and accompanying explanatory statements regarding the results	5
(10) the identification of the proposed preferred option	5 and 6
(11) for the proposed preferred option, the RIT-D proponent must provide: (i) details of the technical characteristics; (ii) the estimated construction timetable and commissioning date (where relevant); (iii) the indicative capital and operating costs (where relevant); (iv) a statement and accompanying analysis that the proposed preferred option satisfied the RIT-D; and (v) if the proposed preferred option is for reliability corrective action and that option has a proponent, the name of the proponent	 1 3 3 6 N/A
(12) contact details for a suitably qualified staff member of the RIT-D proponent to whom queries on the draft report may be directed.	8
5.17.4(k) request for submissions on the matters set out in DPAR	8

10 APPENDIX A – THE RIT-D PROCESS



11 APPENDIX B – SAFETY NET TARGETS

Energex has an obligation to meet the Safety Net Targets under its Distribution Authority. The Safety Net targets are defined by the load impacted and the duration of this impact. The table below shows the specific requirements that Energex needs to achieve.

SCHEDULE 3

Service Safety Net Targets

Feeder Type	Targets *(for restoration of supply following an N-1 event)*
CBD	• Any interruption in customer supply resulting from an N – 1 event at the sub-transmission level is restored with 1 minute
Urban – Following an N – 1 event	• No greater than 40MVA (16,000 customers) is without supply for more than 30 minutes • No greater than 12MVA (5,000 customers) is without supply for more than 3 hours and • No greater than 4MVA (1,600 customers) is without supply for more than 8 hours
Short Rural – Following an N – 1 event	• No greater than 40MVA (16,000 customers) is without supply for more than 30 minutes • No greater than 15MVA (6,000 customers) is without supply for more than 4 hours and • No greater than 10MVA (4,000 customers) is without supply for more than 12 hours

Note: All modelling and analysis will be benchmarked against 50PoE loads and based on credible contingencies

12 APPENDIX C – LOAD CHARACTERISTICS

12.1.1 Existing Load Profiles

The load at Raceview bulk supply substation comprises a mix of residential and commercial/industrial customers.

The full annual load profile for Raceview bulk supply substation over the 2024/25 financial year is shown in Figure 6 . It can be noted that the peak load occurs during summer.

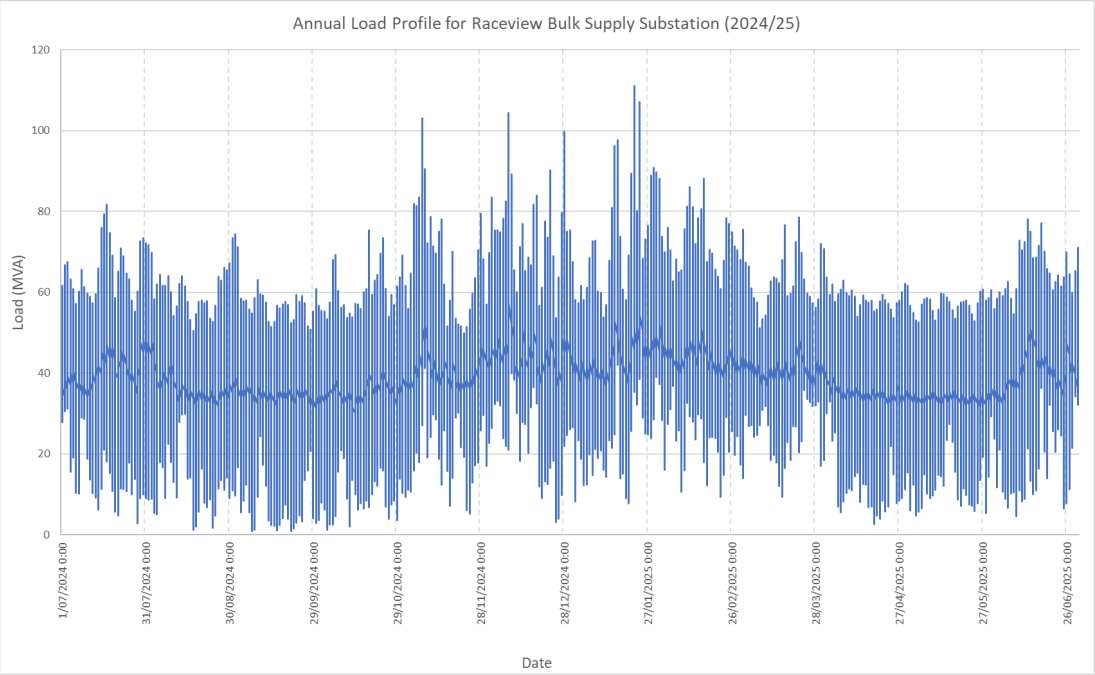


Figure 6: Raceview Bulk Supply Substation actual annual load profile

12.1.2 Load Duration Curve

The load duration curve for Raceview bulk supply substation over the 2024/25 financial year is shown in Figure 7

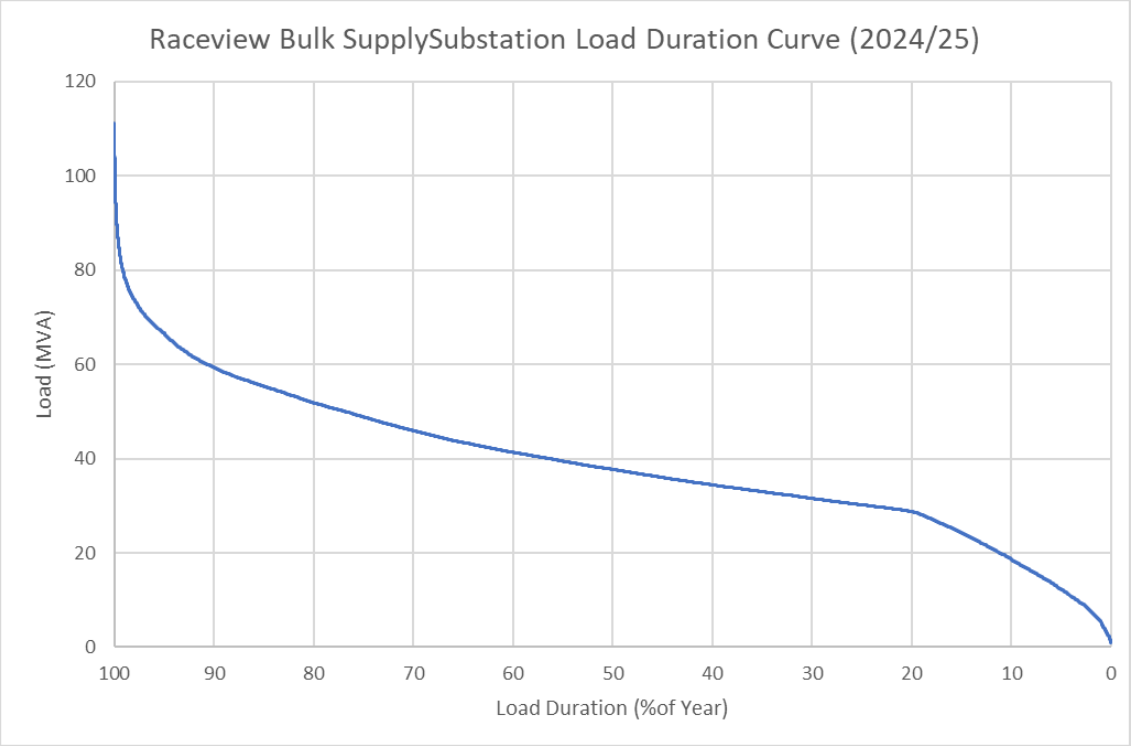


Figure 7: Raceview Bulk Supply Substation load duration curve

12.1.3 Average Peak Weekday Load Profile (Summer)

The daily load profile for an average peak weekday during summer is illustrated below in Figure 8 . It can be noted that the summer peak loads at Raceview bulk supply substations are historically experienced in the late afternoon and evening.

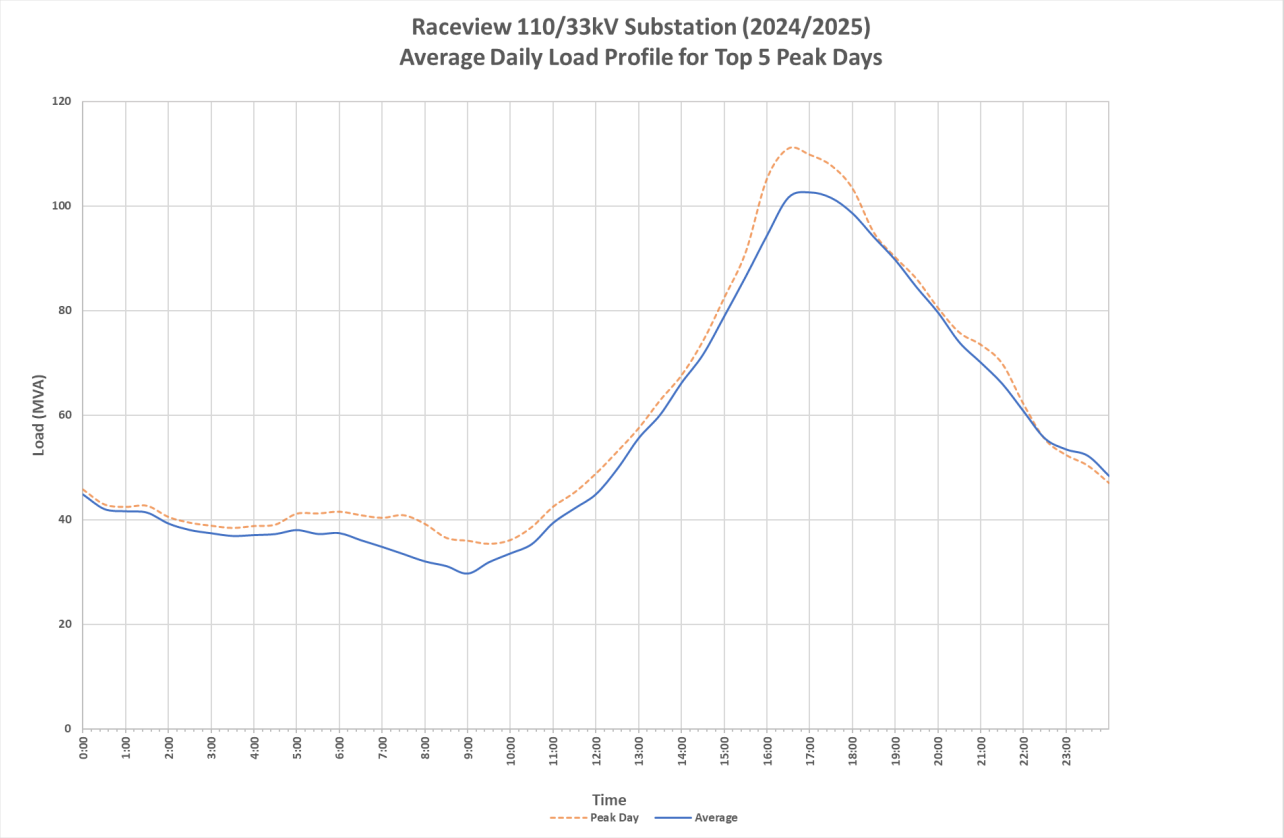


Figure 8: Raceview bulk supply Substation average peak weekday load profile (summer)