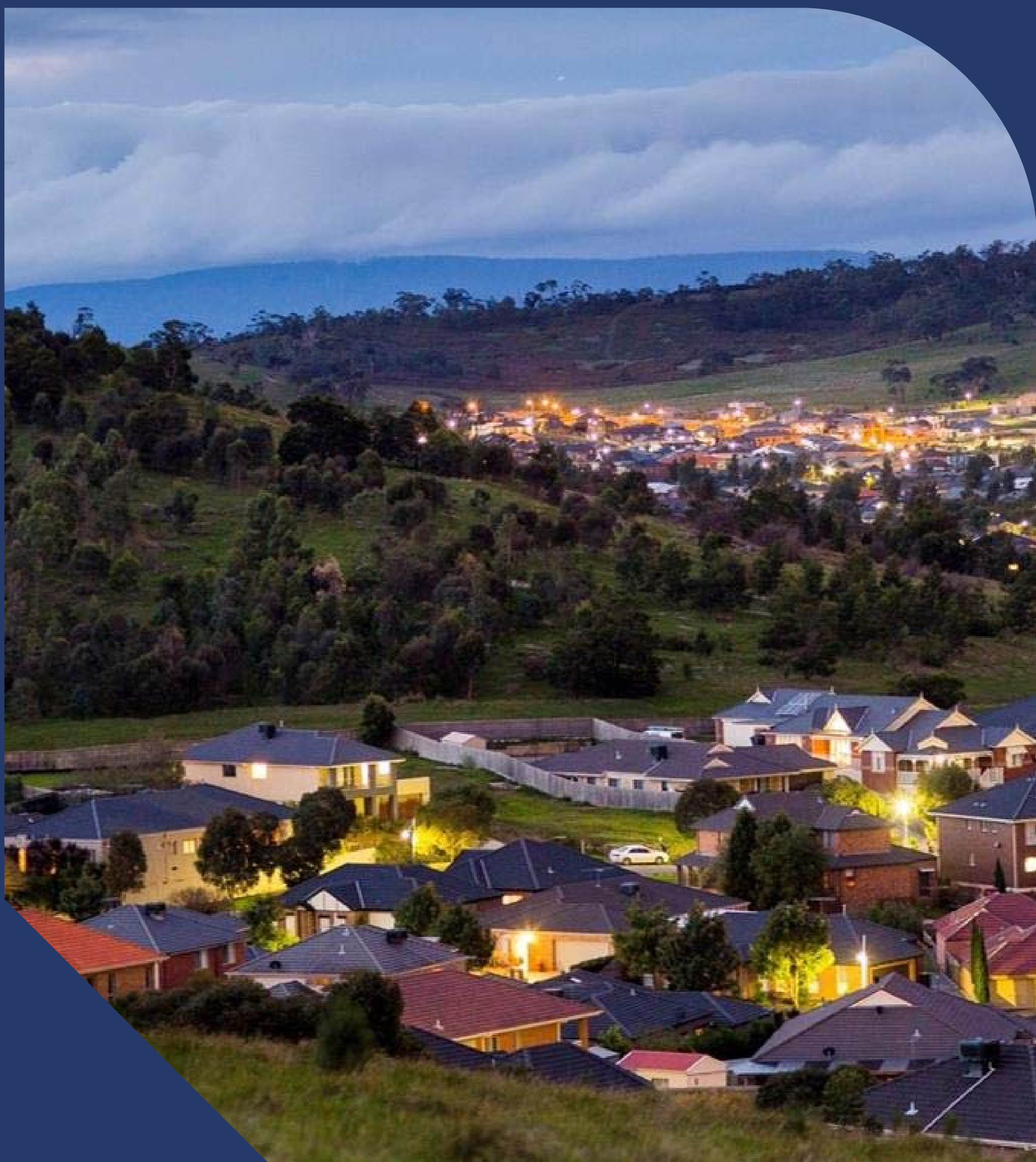
Expulsion Drop Out Fuse Replacement Project

Regulatory Investment Test for Distribution

Final Project Assessment Report

Tuesday, 25 October 2022



AusNet

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1. Executive summary

AusNet Services is a regulated Victorian Distribution Network Service Provider (DNSP) that supplies electrical distribution services to more than 745,000 customers. Our electricity distribution network covers eastern rural Victoria and the fringe of the northern and eastern Melbourne metropolitan area.

As expected by our customers and required by the various regulatory instruments that we operate under, AusNet Services aims to maintain service levels at the lowest possible cost to our customers. To achieve this, we develop forward looking plans that aim to maximise the present value of economic benefit to all those who produce, consume and transport electricity in the National Electricity Market (NEM).

Our planning approach includes the application of a probabilistic planning methodology, under which conditions often exist where some of the load cannot be supplied under rare but possible conditions, such as during extreme demand conditions or with a network element out of service. Where relevant, we also prepare, publish, and consult on a regulatory investment test for distribution (RIT-D), which further helps ensure all credible options are identified and considered, and the best option is selected.

This Final Project Assessment Report (FPAR) is the third stage of the RIT-D consultation process in relation to the Expulsion Drop Out (EDO) Fuse Replacement project. The FPAR follows our earlier publication of a notice of determination in accordance with clause 5.17.4(d) of the National Electricity Rules (the Rules), which explained that there are no credible non-network options that could address the identified need relating to EDO fuses.

On 22 August 2022, we also published the Draft Project Assessment Report (DPAR) in relation to this project and invited submissions from stakeholders. The DPAR is the second stage of the RIT-D process and sets out the cost-benefit analysis that underpins the selection of the preferred option. We did not receive any submissions in response to that report.

This FPAR has been prepared by AusNet Services in accordance with the requirements of clause 5.17 of the Rules. This FPAR complies with the requirements of Clause 5.17.4(r) of the Rules, as detailed in section 7 of this document, and the AER's RIT - D application guidelines.

1.1. Identified Need

EDO fuses are known to perform poorly. The continued use of EDO fuses on our network exposes customers and the community to a higher likelihood of asset failure leading to bushfire risk, health and safety risk and unserved energy. Power filled (PF) fuses are the next poorest performing fuses, which also expose customers and the community to increased risk.

The nature of these risks is asset-related and cannot be mitigated by a non-network option. Specifically, Medium Voltage (MV) Fuse Switch Disconnectors are an essential component of a safe and reliable distribution network. The need for these assets cannot be addressed by a non-network option. As such, deteriorated and poorly performing assets must be replaced by a modern equivalent asset so that customers continue to receive the safe and reliable distribution services they expect.

1.2. Options considered and preferred option

The options considered in this FPAR are:

- 'Do nothing' or Business as Usual
- Planned replacement of fuses (proactive replacement)

There are no other credible options, as there is no other technology available to replace an MV fuse. Our cost-benefit analysis has identified the optimal replacement volumes and net benefits, using sensitivity analysis and scenario testing. Based on this analysis, the optimal fuse replacement volume is 5,505 by 2026. Approximately 98% of these fuses are EDOs, with the remaining volume being PF fuses.

1.3. Contact details

Any questions regarding this report should be directed to:

Auras Bugheanu
AusNet Services
Level 30, 2 Southbank Boulevard
Southbank, Victoria 3006

Ph: (03) 9695 6000

2. Background

Medium Voltage (MV) Fuse Switch Disconnectors (FSDs) provide the following functions:

- Over-current protection to detect and disconnect faulty electrical equipment or sections of medium voltage line or insulated cable.
- Manual disconnection facilities to isolate electrical equipment and sections of line or cable from voltage sources, which enable the application of protective earth devices. Hence, it provides a safe working condition for line workers.
- In conjunction with “load buster” devices, they provide single-phase switching facilities which enable the manual energisation and de-energisation of electrical equipment or sections of line or cable.

AusNet Services distribution network currently employs several types of MV FSDs. The current type of MV fuses installed on the network are EDO fuses, Boric Acid (BA), Energy Limited (ELF), Powder Filled (PF) and Fault Tamer (FT) fuses, where each type of fuse has different characteristics and specific advantages and risks.

The population of FSDs on our network by type is shown in the figure below.

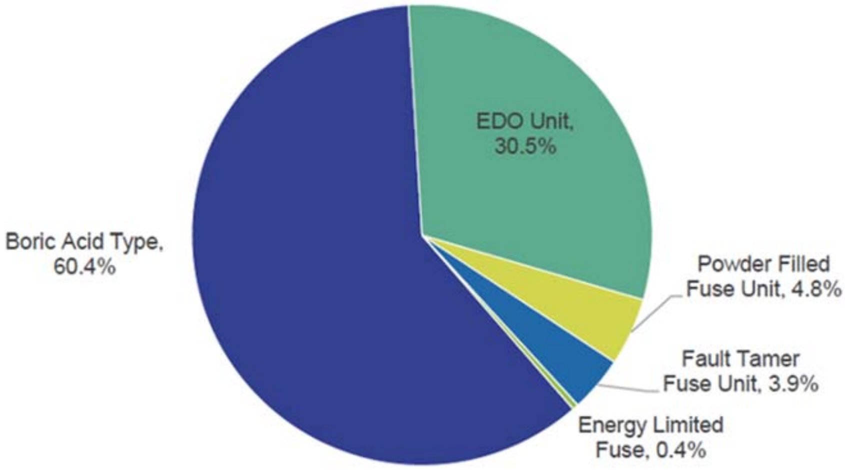

Figure 1: Population of Fuse Switch Disconnectors, by type

EDO FSDs were introduced to the distribution network during the earliest days of electrification of the State. Earlier models of EDOs were of a type referred to as “double vented”, meaning when the fuse operates, the hot material expulsed from both top and bottom ends of the fuse carrier. The “double vented” contact and carrier combinations present higher risks of sustained supply outages and fire ignition due to uncontrolled expulsion of arcing products during operation and the relative ease with which birds or animals can short circuit the upper electrical contact to the FSD mounting bracket.

Later models have modified fuse carriers which vent from the bottom end only into a fire choke that catches any molten fuse particles. The single-vented EDOs were introduced around 1985. In operation, the combination of a spring tensioned fuse link and the super-heated gasses created by the arc across the melted fuse link, expel the remnants of the fuse link from the fuse carrier allowing the hinges and trunnions at the base of the carrier to pivot. The pivoting motion releases the top contact of the fuse carrier from its mating contact on the fuse mount and the faulted circuit is thus disconnected.

The performance of all fuse types is assessed in terms of number of failures, number of sustained outages and fire ignition, both in relation to pole and ground. Amongst all types of fuses, the EDO fuse performance is the poorest performing, and hence a proactive replacement program was introduced in 2010 to mitigate the risk of fire ignition and power outage. The failure rate of EDO FSDs is estimated as 0.35% per annum, followed by the Powder Filled FSDs failure rate of 0.32% per annum and Boric Acid FSDs failure rate of 0.03% per annum.

The potential economic impacts of a fuse failure are:

- Bushfire start;
- Health and safety impact; and
- Unserved energy.

AusNet Services ceased installing new EDO fuse units around the year 2000. The population is reducing as units are progressively removed or replaced from service.

3. Identified need

The continued use of EDOs on our network exposes customers and the community to a higher likelihood of asset failure leading to bushfire risk, health and safety risk and unserved energy. PF fuses are the next poorest performing fuses, which also expose customers and the community to increased risk.

MV FSDs are an essential component of a safe and reliable distribution network. As such, deteriorated and poorly performing assets must be replaced by a modern equivalent asset so that customers continue to receive the safe and reliable distribution services they expect. In July 2022, we published a notice of determination under clause 5.17.4(d) of the Rules, which explained that there are no credible non-network options.

Our assessment is that works are required to address the asset-related risks in accordance with our obligations under clause 5.2 of the Electricity Distribution Code, which requires us to meet reasonable customer expectations of reliability of supply. Furthermore, we are required to manage risk "as far as practicable" in accordance with the Electricity Safety Act, which requires action to be taken to address the risks associated with EDOs and the highest risk/consequence PF fuses.

4. Assumptions underpinning the identified need

The purpose of this chapter is to summarise the key input assumptions that underpin the identified need described in the previous chapter.

4.1. Regulatory obligations

In addressing the identified need, we must satisfy our regulatory obligations, which we summarise below.

Clause 6.5.7 of the National Electricity Rules requires AusNet Services to only propose capital expenditure required to achieve each of the following:

(1) meet or manage the expected demand for standard control services over that period;

(2) comply with all applicable regulatory obligations or requirements associated with the provision of standard control services;

(3) to the extent that there is no applicable regulatory obligation or requirement in relation to:

(i) quality, reliability or security of supply of standard control services; or

(ii) the reliability or security of the distribution system through the supply of standard control services

to the relevant extent:

(iii) maintain the quality, reliability and security of supply of standard control services, and

(iv) maintain the reliability and security of the distribution system through the supply of standard control services; and

(4) maintain the safety of the distribution system through the supply of standard control services.

Section 98(a) of the Electricity Safety Act requires AusNet Services to design, construct, operate, maintain and decommission its supply network to minimise as far as practicable:

(a) the hazards and risks to the safety of any person arising from the supply network; and

(b) the hazards and risks of damage to the property of any person arising from the supply network; and

(c) the bushfire danger arising from the supply network.

The Electricity Safety act defines 'practicable' to mean having regard to –

(a) severity of the hazard or risk in question; and

(b) state of knowledge about the hazard or risk and any ways of removing or mitigating the hazard or risk; and

(c) availability and suitability of ways to remove or mitigate the hazard or risk; and

(d) cost of removing or mitigating the hazard or risk.

Clause 3.1 of the Electricity Distribution Code requires AusNet Services to:

develop and implement plans for the acquisition, creation, maintenance, operation, refurbishment, repair and disposal of its distribution system assets and plans for the establishment and augmentation of transmission connections:

(i) to comply with the laws and other performance obligations which apply to the provision of distribution services including those contained in this Code;

(ii) to minimise the risks associated with the failure or reduced performance of assets; and

(iii) in a way which minimises costs to customers taking into account distribution losses.

Under clause 5.2 of the Electricity Distribution Code, AusNet Services:

must use best endeavours to meet targets required by the Price Determination and targets published under clause 5.1 and otherwise meet reasonable customer expectations of reliability of supply.

4.2. Asset condition

AMS 10-13 Condition Monitoring describes AusNet Services' strategy and approach to monitoring the condition of assets. Asset condition is measured with reference to an asset health index on a scale of C1 to C5. The condition scores are used to calculate the asset failure rates using the Weibull parameters determined for each asset class. The table below provides a description of the asset condition scores.

Table 1: Asset Condition Score and Remaining Service Potential

Condition Score	Condition	Condition Description
C1	Very Good	Initial service condition
C2	Good	Deterioration has minimal impact on asset performance. Minimal short term asset failure risk.
C3	Average	Functionally sound showing some wear with minor failures, but asset still functions safely at adequate level of service.
C4	Poor	Advanced deterioration – plant and components function but require a high level of maintenance to remain operational.
C5	Very Poor	Extreme deterioration approaching end of life with failure imminent.

The condition for EDO fuses, which are approximately 31% of the total MV FSDs population, is either 4 or 5. The asset condition ranking of this fuse types compares unfavourably with other fuse types, as shown in the figure below.

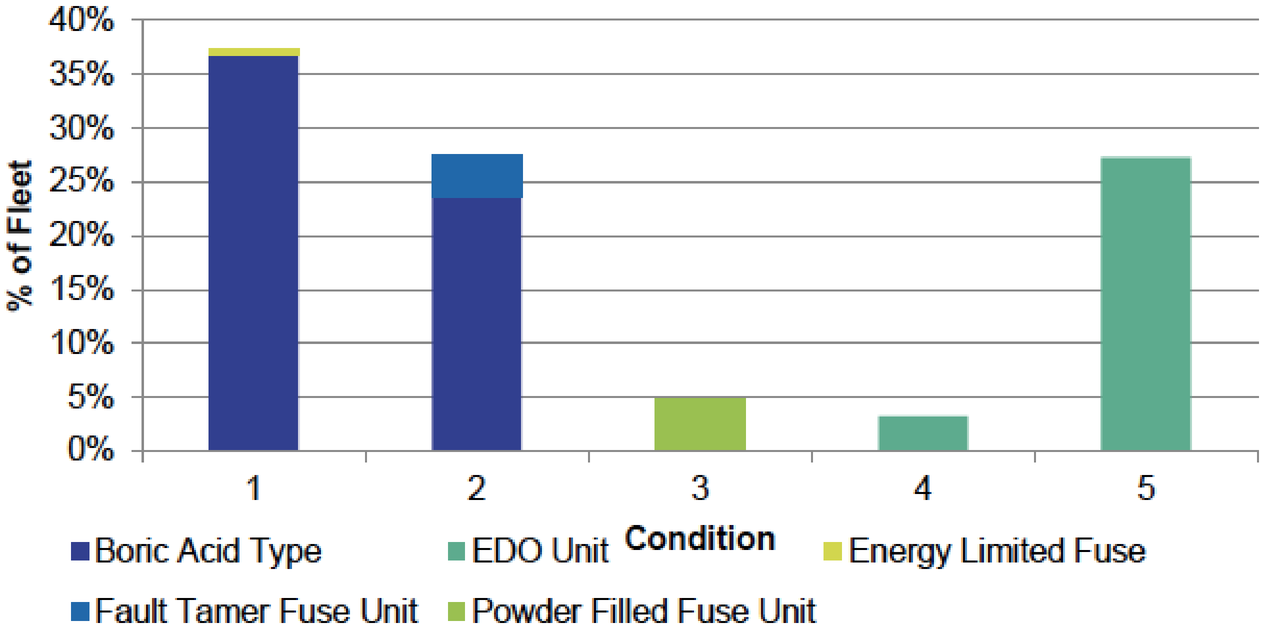

Figure 2: Condition Profile of MV FSDs

5. Potential Credible Options

This section outlines the potential options that have been considered to address the identified need, and summarises the key works and costs associated with implementing these options. In subsequent analysis some of these options have been found not to be credible but are nevertheless included here for completeness.

(1) Do Nothing (counterfactual)

(2) Pro-active replacement

5.1. Option 1: Do Nothing

The Do Nothing (counterfactual) option assumes that AusNet Services would not undertake any investment, outside of the normal operational and maintenance processes. The Do Nothing (counterfactual) option establishes the base level of risk and provides a basis for comparing other credible options.

Whilst the direct capital costs of this option are zero, the continued exposure to residual risks means that this option has significant risk costs associated with it. In relation to EDO fuses, ‘do nothing’ is not a credible option.

5.2. Options 2: Proactive asset replacement

This option involves the pro-active replacement of EDO fuses and the highest risk/consequence PF fuses. The nature of the risks associated with fuse failures means that this option will be superior to Option 1. The key issue in relation to this option is to determine the optimal volume and timing of EDO and PF fuse replacements to deliver the maximum benefit to electricity consumers and the broader community.

This option is the preferred option. The optimal volume and timing of fuse replacements is addressed in the next section.

6. Economic assessment of the credible options

6.1. Market benefit

The regulatory investment test for distribution requires the RIT-D proponent to consider whether each credible option provides the classes of market benefits described in clause 5.17.1(c)(4) of the Rules. To address this requirement, the table below discusses our approach to each of the market benefits listed in clause 5.17.1(c)(4) in assessing the credible options to address the identified need relating to EDO fuses and the highest risk/consequence PF fuses.

Table 2: Analysis of Market Benefits

Class of Market Benefit	Analysis
(i) changes in voluntary load curtailment;	The options are not expected to lead to changes in voluntary load curtailment.
(ii) changes in involuntary load shedding and customer interruptions caused by network outages, using a reasonable forecast of the value of electricity to customers;	The options are expected to have an impact on involuntary load shedding, although the identified need relates to asset condition. AusNet Services applies probabilistic planning techniques to assess the expected cost of unserved energy for each option.
(iii) changes in costs for parties, other than the RIT-D proponent, due to differences in: *(A) the timing of new plant;* *(B) capital costs; and* *(C) the operating and maintenance costs;*	There is no impact on other parties.
(iv) differences in the timing of expenditure;	This project will not result in changes in the timing of other expenditure.
(v) changes in load transfer capacity and the capacity of Embedded Generators to take up load;	This project will not impact on the capacity of Embedded Generators to take up load.
(vi) any additional option value (where this value has not already been included in the other classes of market benefits) gained or foregone from implementing the credible option with respect to the likely future investment needs of the National Electricity Market;	This project will not impact the option value in respect to likely future investment needs of the NEM.
(vii) changes in electrical energy losses; and	This project will not result in changes to electrical energy losses.
(viii) any other class of market benefit determined to be relevant by the AER.	We do not consider any other class of market benefit as relevant to the selection of the preferred option.

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6.2. Methodology

The purpose of this section is to provide a high-level explanation of our methodology for identifying the preferred option. As a general principle, it is important that the methodology takes account of the identified need and the factors that are likely to influence the choice of the preferred option. As such, the methodology is not a 'one size fits all' approach, but one that is tailored for the particular circumstances under consideration.

The identified need for this project can be described in terms of two types of risk:

- supply risk, where an asset failure may lead to a loss of supply to customers; and
- non-supply risk, which captures the potential consequences of an asset failure, which may include safety, bushfire risk and environmental costs, in addition to damage to adjacent assets or property.

In relation to supply risk, we adopt a probabilistic planning methodology which considers the likelihood and severity of critical network conditions and outages. The expected annual cost to customers associated with supply risk is calculated by multiplying the expected unserved energy (the expected energy not supplied based on the probability of the supply constraint occurring in a year) by the value of customer reliability (VCR).

In relation to non-supply risks, our approach monetises this risk by multiplying the following parameter estimates:

- the probability of asset failure;
- the cost of consequence of the asset failure;
- the likelihood of the consequence given the failure has occurred; and
- the number of assets to which the analysis relates.

The purpose of the cost benefit analysis that underpins the RIT-D assessment is to determine whether there is a cost-effective option to mitigate the supply and non-supply risks (the aggregate 'risk-cost'). To be cost-effective, the reduction in the aggregate risk-cost that an option is expected to provide must exceed the cost of implementing that option. The preferred option provides greatest expected net benefit, expressed in present value terms.

In the absence of remedial action,

Figure 3 shows how the aggregate risk-cost will typically increase as the risk of asset failure and energy at risk increase over time. The optimal timing of the preferred option occurs when the annualised capital cost of that option (or the operating cost for a non-network option) is equal to the aggregate risk-cost.

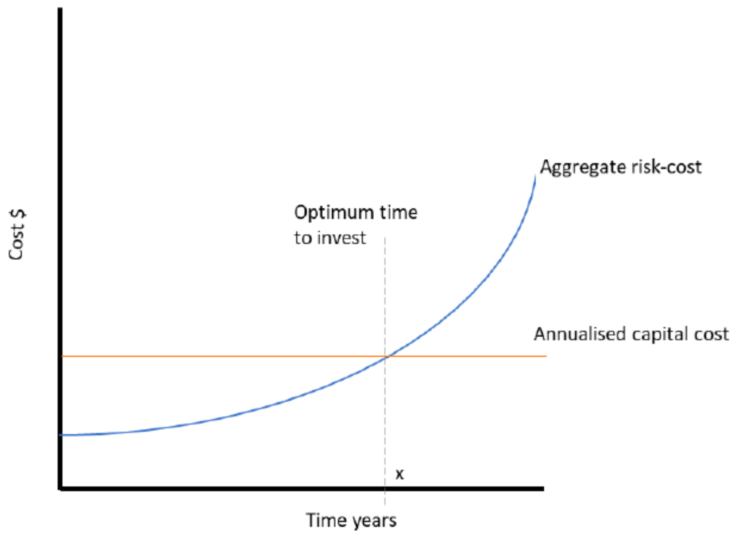

Figure 3: Increasing risk-cost over time and optimal project timing[1]

In effect, the preferred option delivers the lowest total cost to customers, which is the sum of the cost of implementing that option and any residual risk-cost. The identification of the preferred option is complicated by the fact that the future is uncertain and that various input parameters are 'best estimates' rather than known values. Therefore, the RIT-D analysis must be conducted in the face of uncertainty.

1 This figure is reproduced from the AER's Industry practice application note, Asset replacement planning, January 2019, figure 8. This figure assumes that the option eliminates the aggregate risk-cost in full, which may not be the case.

To address uncertainty in our assessment of the credible options, we use sensitivity analysis and scenario analysis in our cost benefit assessment. As recommended by the AER's application guidelines, we use sensitivity analysis to assist in determining an appropriate set of reasonable scenarios.[2] The relationship between sensitivity analysis and scenarios is best explained by the AER's practice note:[3]

> *Scenarios should be constructed to express a reasonable set of internally consistent possible future states of the world. Each scenario enables consideration of the prudent and efficient investment option (or set of options) that deliver the service levels required in that scenario at the most efficient long run service cost consistent with the National Electricity Objective (NEO).*
>
> *Sensitivity analysis enables understanding of which input values (variables) are the most determinant in selecting the preferred option (or set of options). By understanding the sensitivity of the options model to the input values a greater focus can be placed on refining and evidencing the key input values. Generally the more sensitive the model output is to a key input value, the more value there is in refining and evidencing the associated assumptions and choice of value.*
>
> *Scenario and sensitivity analyses should be used to demonstrate that the proposed solution is robust for a reasonable range of futures and for a reasonable range of positive and negative variations in key input assumptions. NSPs should explain the rationale for the selection of the key input assumptions and the variations applied to the analysis.*

In applying sensitivities and scenarios to our cost benefit assessment, we have regard to the particular circumstances to ensure that the approach is appropriate. Where our analysis shows that an option is clearly preferred, we will not undertake further testing. This approach is consistent with clause 5.17.1(c)(2) of the Rules, which states that the RIT–D must not require a level of analysis that is disproportionate to the scale and likely impact of each credible option considered.

In preparing the RIT-D, we have also had regard to AEMO's 2021 Inputs, Assumptions and Scenarios Report and its 2022 Integrated System Plan (ISP). We note that the scenarios adopted by AEMO are focused particularly on the matters that are relevant to major transmission investments, rather than distribution investments of the type considered in this report. Accordingly, we have adopted an approach that is appropriate to the specific circumstances described in this report relating to the identified need and the credible options.

Specifically, in relation to the identified need for EDO fuses and the highest risk/consequence PF fuses, it is evident that the proactive replacement of these fuses is appropriate given the unacceptable risks of the 'do nothing' option. In addition, the absence of any alternative technological solution means that this RIT-D should focus on the optimal volume and timing of the fuse replacements.

6.3. Key variables and assumptions

Table 3 below lists the key variables and assumptions applied in the economic assessment, which are essential inputs to our methodology described above. The table also sets out the upper and lower bounds of the range of forecasts adopted for each of these variables. As explained above, the lower bound and upper bound estimates are used to undertake sensitivity testing and scenario analysis. The detailed results of this modelling are provided in section 6.4.

Table 3: Key variables and assumptions ($M)

Variable / assumption	Lower bound	Central estimate	Upper bound
Demand forecasts	5% reduction in central estimate of annual growth rate	Forecast average annual growth rate	5% increase in central estimate of annual growth rate
Safety cost	Central Estimate	Value of statistical life of $4.5 million[4]	Central estimate
Safety cost Disproportionate Factor	Central estimate	Generally 3, applied in accordance with Ausnet's risk management framework	Central estimate
Option cost	15% reduction in central estimate	In-house cost estimates using detailed and high-level project scopes	15% increase in central estimate
Real discount rate per annum	4.0%	6.44%	9%

2 AER, Application guidelines, Regulatory investment test for distribution, December 2018, page 42.
3 AER, Asset replacement planning, January 2019, page 36.
4 Best Practice Regulation Guidance Note Value of statistical life, December 2014, escalated, refer to model 'Inputs – Global' tab.

Variable / assumption	Lower bound	Central estimate	Upper bound
Probability of asset failure	25% reduction in central estimate	Historical asset performance data, plus forecasts based on condition monitoring and CBRM modelling	25% increase in central estimate

6.4. Cost benefit analysis

The economic analysis presented below assesses the optimal volume of EDO and PF fuse replacements under the central case, and then if we vary the input assumptions: risk of asset failure; demand; the cost of each option; and the discount rate. This analysis shows that the central case involves an optimal replacement volume of 5,505 by 2026, delivering a net benefit of $5.43 million compared to the 'do nothing' option. The finding, together with the sensitivity analysis is presented in the table below.

Table 4: Optimal volumes and net present values for Central Case and sensitivity analysis

	Central Case	High asset failure	Low asset failure	High demand	Low demand	High option cost	Low option cost	High discount rate	Low discount rate
Optimal Volume	5,505	5,514	2,703	5,505	5,282	4,714	5,514	5,361	5,505
NPV	$5.43m	$8.89m	$2.49m	$5.66m	$5.21m	$4.83m	$6.08m	$5.77m	$5.05m

Source: AusNet Services

The sensitivity analysis shows that the optimal replacement volume varies from a low of 2,703 fuse replacements to a high of 5,514 for the period to 2026. The net benefit reported in the above table relates to the replacement of 5,505 fuses for each of the sensitivities. Therefore, under a low asset failure assumption, the NPV of replacing 5,505 fuses reduces from the central case of $5.43 million to $2.49 million. Conversely, the NPV resulting from the replacement of 5,505 fuses by 2026 will increase to $8.85 million if the failure rate is higher than our central estimate.

The above analysis provides comfort that the proposed replacement volume of 5,505 fuses by 2026 achieves a net benefit under a range of different sensitivities. It therefore supports the proposition that the prudent and efficient approach is to replace 5,505 fuses by 2026, consistent with the central case. We have also conducted scenario analysis to further test this proposition, applying the definitions set out below.

Table 5: Definition of reasonable scenarios

Scenario	Probability of failure	Option Cost	Forecast Demand	VCR	Discount rate
Central Case	Central estimate	Central estimate	Central estimate	Central estimate	Central estimate
Low demand	Central estimate	Central estimate	Lower bound	Central estimate	Central estimate
Weak economic growth	Central estimate	Lower bound	Lower bound	Central estimate	Lower bound
High demand	Central estimate	Upper bound	Upper bound	Central estimate	Upper bound

Table 6 below provides a brief description of each scenario.

Table 6: Guide to scenarios

Scenario	Description
Central Case	This scenario adopts the central estimate for each variable in the economic assessment. It represents the most likely outcome.
Low demand	This scenario represents low demand driven by an increase in distributed energy resources. We have retained the other parameters at their central estimates, noting that the scenario is not driven by weak economic growth.
Weak economic growth	This scenario reflects weak economic growth, possibly due to the continuing impact of COVID-19. It has lower costs of delivering the option, lower demand and a lower discount rate
High demand	This scenario represents an economic rebound and continuing supply side issues. It is characterised by higher costs of delivering the option, higher demand and an upper bound discount rate.

The table below shows the optimal replacement volume ranges from a low of 4,809 fuse replacements under the high demand scenario and 5,514 fuse replacements under the weak economic growth scenario. The scenario analysis supports the adoption of the central case, which produces a net benefit of $5.43 million. The scenario analysis shows that the net benefit from replacing 5,505 fuses by 2026 ranges from a low of $5.21 million to a high of $5.52 million.

Table 7: Net benefit for each scenario ($M)

	Central case	Low demand	Weak economic growth	High demand
Optimal volume	5,505	5,282	5,514	4,809
NPV	$5.43m	$5.21m	$5.52m	$5.43m

Source: AusNet Services

6.5. Preferred option

Our preferred option is to replace 5,505 EDO fuses by 2026, which involves the following works:

- Replace existing EDO fuses and selected PF fuses with boric acid or fault tamer FSDs;
- Fuse replacement includes fuses links, fuse holder and mounting brackets as per by fuse type; and
- Install stand-off insulators (for fuses on concrete poles) and insulate droppers/leads.

The appendix sets out further details on the location of the sites and replacement volumes.

This option is expected to maximise the present value of the net economic benefit to all those who produce, consume and transport electricity in the NEM.

6.6. Capital and operating costs of the preferred option

The direct capital expenditure is $12.79 million (nominal). The principal capital expenditure elements, expressed in nominal terms, are:

- Design and internal labour, $1.59 million; and
- Contracts, $9.82 million.

The remaining costs relate to overheads and an allowance for risk. For the purposes of this RIT-D, it is assumed that the operating expenditure is unchanged from the 'BAU' costs.

In relation to the timetable for completing the works, we expect the replacement program to commence on 01/12/2022 and the project In-service date is expected to be 31/01/2026.

7. Satisfaction of the RIT-D

In accordance with clause 5.17.4(j)(11)(iv) of the Rules, we certify that the proposed option satisfies the regulatory investment test for distribution. The table below shows how each of the Rules requirements have been met by the relevant sections of this report. As no submissions were received in response to the DPAR, 5.17.4(r)(1)(ii) is not applicable for this FPAR.

Table 8: Compliance with regulatory requirements

Requirement			Section
5.17.4(j) The draft project assessment report must include the following[5]:			
(1)		a description of the identified need for the investment;	Section 3.
(2)		the assumptions used in identifying the identified need (including, in the case of proposed reliability corrective action, reasons that the RIT-D proponent considers reliability corrective action is necessary);	Section 4.
(3)		if applicable, a summary of, and commentary on, the submissions on the non-network options report;	Not applicable.
(4)		a description of each credible option assessed;	Section 5.
(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 for each credible option;	Section 6.4.
(6)		a quantification of each applicable cost for each credible option, including a breakdown of operating and capital expenditure;	Sections 5 and 6.6.
(7)		a detailed description of the methodologies used in quantifying each class of cost and market benefit;	Section 6.2.
(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;	Section 6.1.
(9)		the results of a net present value analysis of each credible option and accompanying explanatory statements regarding the results;	Section 6.4.
(10)		the identification of the proposed preferred option;	Section 1.1 and 6.5.
(11)		for the proposed preferred option, the RIT-D proponent must provide:	
	(i)	details of the technical characteristics;	Section 6.5.
	(ii)	the estimated construction timetable and commissioning date (where relevant);	Section 6.6.
	(iii)	the indicative capital and operating cost (where relevant);	Section 6.6.
	(iv)	a statement and accompanying detailed analysis that the proposed preferred option satisfies the regulatory investment test for distribution; and	Section 7, including this table.
	(v)	if the proposed preferred option is for reliability corrective action and that option has a proponent, the name of the proponent;	Not applicable.

5 Although this provision refers to the draft project assessment report, it is applicable to this FPAR by virtue of clause 5.17.4(r)(1).

Requirement	Section
(12) contact details for a suitably qualified staff member of the RIT-D proponent to whom queries on the draft report may be directed.	Section 1.3.

Appendix – Proposed sites and fuse replacements

The selected sites and numbers of fuses to be replaced are set out in the table below.

Table 9: Fuse replacement program

Region/Plant Section	No of Sites	No of Fuses
CENTRAL	**400**	**879**
BFD	112	260
LDL	113	259
SMG	175	360
EAST	**567**	**1,351**
BDL	273	671
LGA	129	302
TGN	165	378
NORTH	**1,525**	**3,275**
BNA	438	990
SMR	888	1,807
WOD	199	478
Grand Total	**2,492**	**5,505**

AusNet Services

Level 31
2 Southbank Boulevard
Southbank VIC 3006
T +613 9695 6000
F +613 9695 6666
Locked Bag 14051 Melbourne City Mail Centre Melbourne VIC 8001
www.AusNetservices.com.au

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