

# Appraisal Value Framework

## Quantifying the Cost of Consequence for Network Investments



October 2021

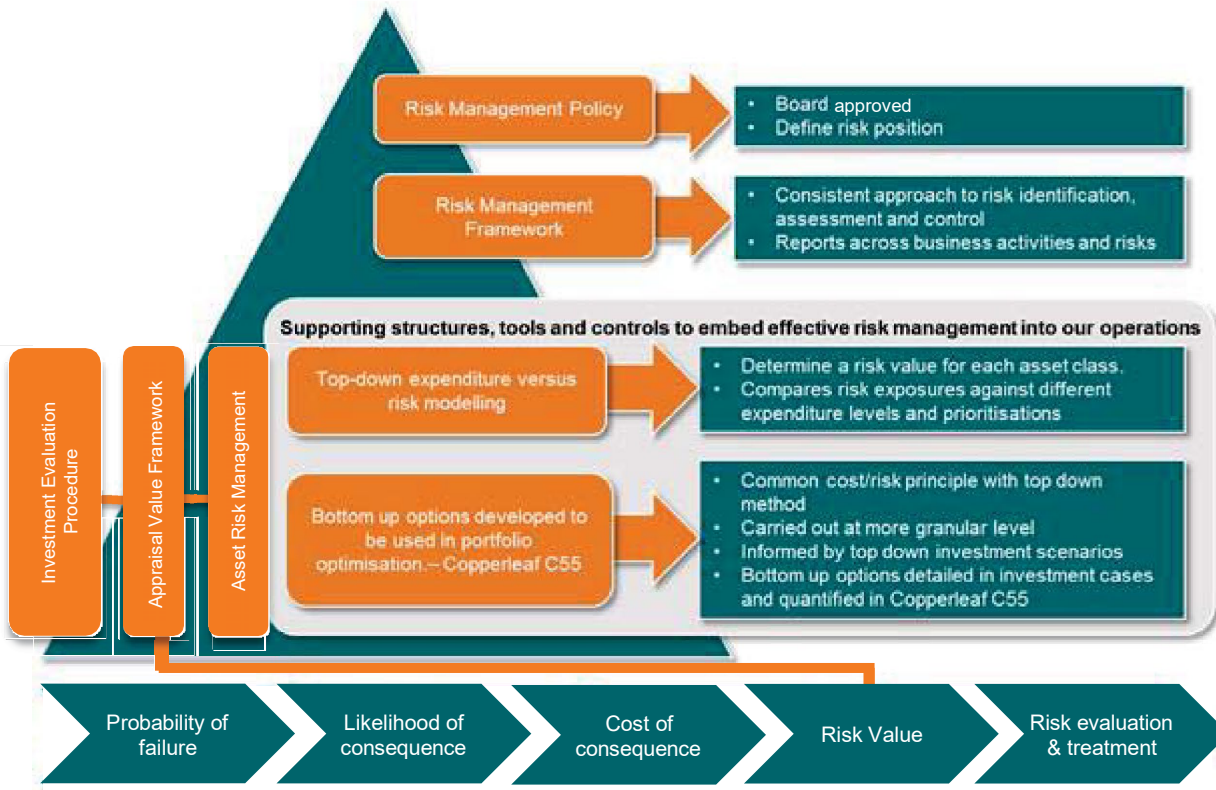
## Table of Contents

<b>1. Background</b>	<b>3</b>
1.1 Introduction to Value Based Decision Making	3
1.2 Framework for Network Investments	4
<b>2. Network Value Measures</b>	<b>6</b>
<b>3. Financial Parameters</b>	<b>8</b>
3.1 Safety	8
3.2 Compliance	10
3.3 Network	11
3.4 Reputation	13
3.5 Environment	14
3.5.1 Environment (bushfire)	14
3.5.2 Environment (Other)	15
3.6 Financial	16
<b>4. Value Function</b>	<b>17</b>
<b>Appendix A: Component Cost Tables</b>	<b>18</b>
<b>List of Figures</b>	
Figure 1 – Context and Use of the Appraisal Value Framework	3
Figure 2 – Network Value Framework	5
Figure 3 - Value Function	5
Figure 4 – Value Measure Alignment to Strategic Objectives and Enterprise Risks	6
Figure 5 - Flagfall and duration method	12
<b>List of Tables</b>	
Table 1: Safety Cost Scale, derived from ‘Costs to Essential Energy’ approach	9
Table 2: Final Safety Cost Scale	10
Table 3: Compliance Cost Scale	11
Table 4: Value of customer reliability values	12
Table 5: Network Cost Scale	13
Table 6: Reputation Cost Scale	14
Table 7: Environment (Bushfire) Cost Scale	14
Table 8: Environment (Other) Cost Scale	16
Table 9: Financial Cost Scale	16
Table 10: Value Function Weightings	17
Table 11: Litigation	18
Table 12: Media Coverage	18
Table 13: Investigation Cost	18
Table 14: Compensation - Injury	18
Table 15: Penalties	19
Table 16: Environment (Bushfire)	19
Table 17: Customer Consultation/Communication	19
Table 18: Customer Contacts	19

# 1. Background

This Appraisal Value Framework sets out the fundamental cost of consequence assumptions that are used to determine the common network risk value. It is a supporting document which sits under the Risk Management Framework, Asset Risk Management and the Investment Evaluation Procedure<sup>1</sup>. It is designed to be used as a tool to guide risk-based decision-making in areas such as network investment optimisation.

Figure 1 shows the relationship between the Appraisal Value Framework and the related procedures. While the framework is designed to support all aspects of network investment decisions, at the present time, its primary use is to inform the 2019-24 portfolio optimisation performed within the Copperleaf C55 software tool.



**Figure 1 – Context and Use of the Appraisal Value Framework**

In order to gain a full understanding of the approach to network investment evaluation and risk management, this document must be read in conjunction with the Investment Evaluation Procedure and Asset Risk Management Framework.

## 1.1 Introduction to Value Based Decision Making

There are several elements that can contribute to the overall value of an investment, including:

- Impacts to key performance indicators (KPI)
- Risks mitigated by the investment
- Financial impacts such as cost savings
- Overall cost of the investment

<sup>1</sup> Investment Evaluation Procedure - CECP0002.32

An investment's value is then used to determine both its independent merit and its standing among other investments competing for resources in a constrained optimisation process.

The process used to generate this Value Framework is called Value-Based Decision Making (VBDM) and is an implementation of Multi-Criteria Decision Analysis (MCDA). The VBDM approach is a best practice in Asset Investment Planning and Management (AIPM) and encourages organisations to:

- Use a value-based approach to guide the development of the decision criteria and the relative weighting of the criteria to one another.
- Use a rational economic approach calibrated to a common scale so dissimilar investments can be compared based on a wide range of criteria.
- Align this model to the objectives and values of the organisation to ensure that higher value translates into more success for the organisation sooner.
- Use a quantitative, consistent and repeatable approach to assess all benefits.
- Use a risk-informed approach.
- Ensure that both financial and non-financial benefits are included and that their contributions are aligned to a common scale.
- Use a time-sensitive approach to planning investments that considers differing costs and consequences resulting from deferral or acceleration of projects.
- Optimise investments across the entire organisation to determine the highest total value that can be achieved with the available resources.
- Employ a decision-support solution that delivers transparency, consistency, accuracy, repeatability and rigor to the organisation in an efficient and collaborative manner.
- Provide an efficient mechanism to communicate and defend the recommended investment decisions.

The VBDM approach can be simplified into two primary activities;

- develop a unique framework that captures the organisation's key Value Measures, financial parameters and risk matrix, that is aligned with the overall strategic goals;
- use this Framework to evaluate and optimise potential investments.

The framework itself starts with the strategic objectives and the scope of the investments being considered which, in-turn, guides the Value Measures aligned to the risk matrix and, ultimately, the Value Function. It is also necessary to define and document the financial parameters as well as any detailed supporting calculations, processes and related assumptions. This is the requirement that is addressed by this document.

## 1.2 Framework for Network Investments

Figure 2 shows the Network Value Framework. This is concerned with network investments, as defined in the Investment Evaluation Procedure as '*capital or operating investment that directly supports the electrical network*'.

The framework starts with the Essential Energy strategic goals which, in turn guide the (network) Value Measures aligned to the risk matrix. The Value Measures are translated into financial parameters. These are brought together through the Value Function to evaluate each candidate investment option.

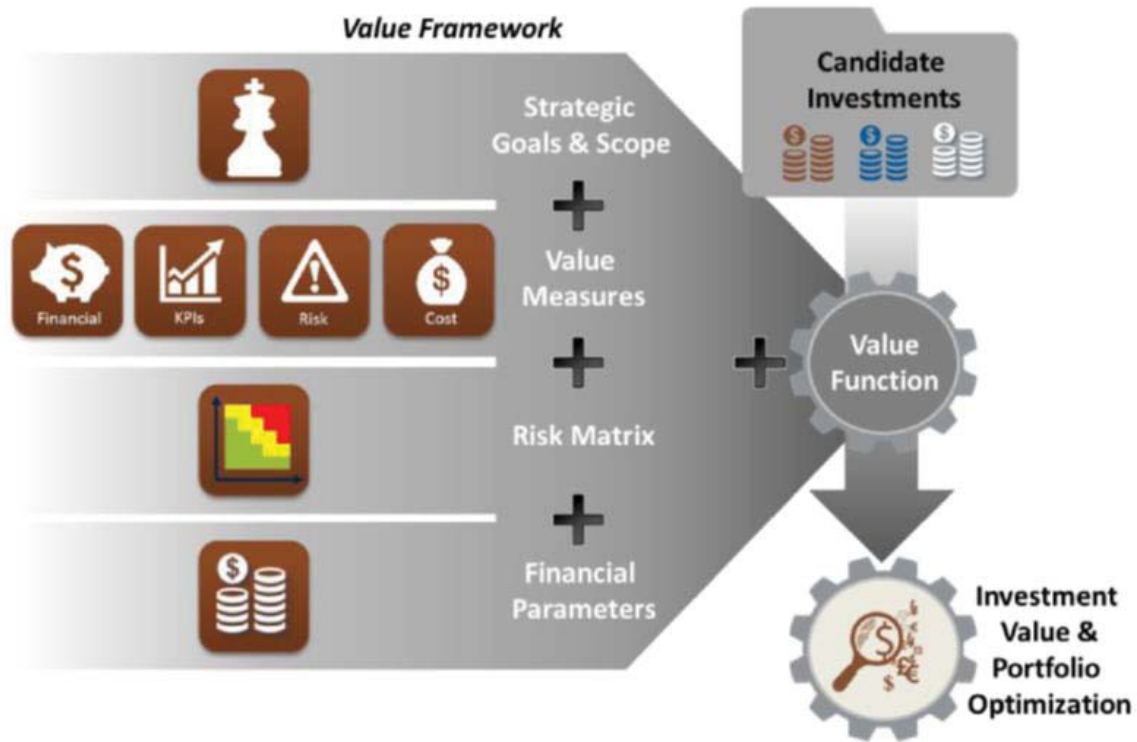


Figure 2 – Network Value Framework

Figure 3 shows the overall Value Function calculation. This combines all the quantified Value Measures in a weighted calculation to compute and assess the overall value that each candidate investment brings, considering its benefits and costs.

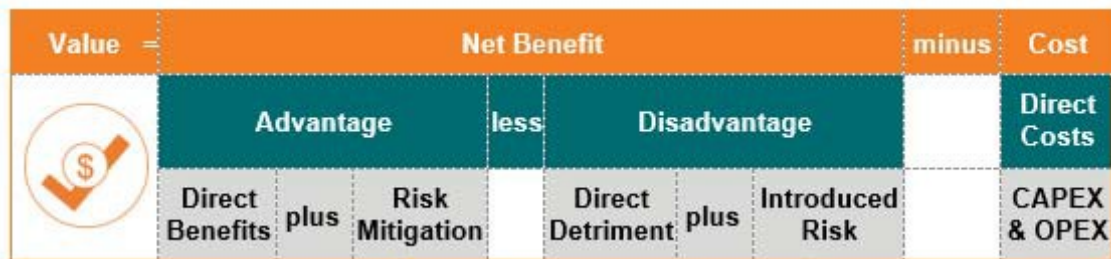


Figure 3 - Value Function

Financial principles and definitions underpinning the overall value calculation and evaluation process are set out in the Investment Evaluation Procedure.

Once assessed, candidate network investments are optimised by selecting the combination of start dates and alternatives that will bring the highest total value to the organisation while satisfying any financial, resource or timing constraints. This process is undertaken within the C55 software.

The remainder of this document sets out the key components of this Value Framework, in the context of its use for the 2019-24 portfolio optimisation, as follows:

- Network Value Measures (Section 2)
- Financial Parameters (Section 3)
- Value Function Weightings (Section 4)

## 2. Network Value Measures

Network Value Measures are used to represent the things that are expected of our business and are valued by our customers. Figure 4 shows the Network Value Measures included in this Appraisal Value Framework and within the C55 software tool for the 2019-24 portfolio optimisation, in the context of the overall Essential Energy Strategic Objectives and Enterprise Risks.

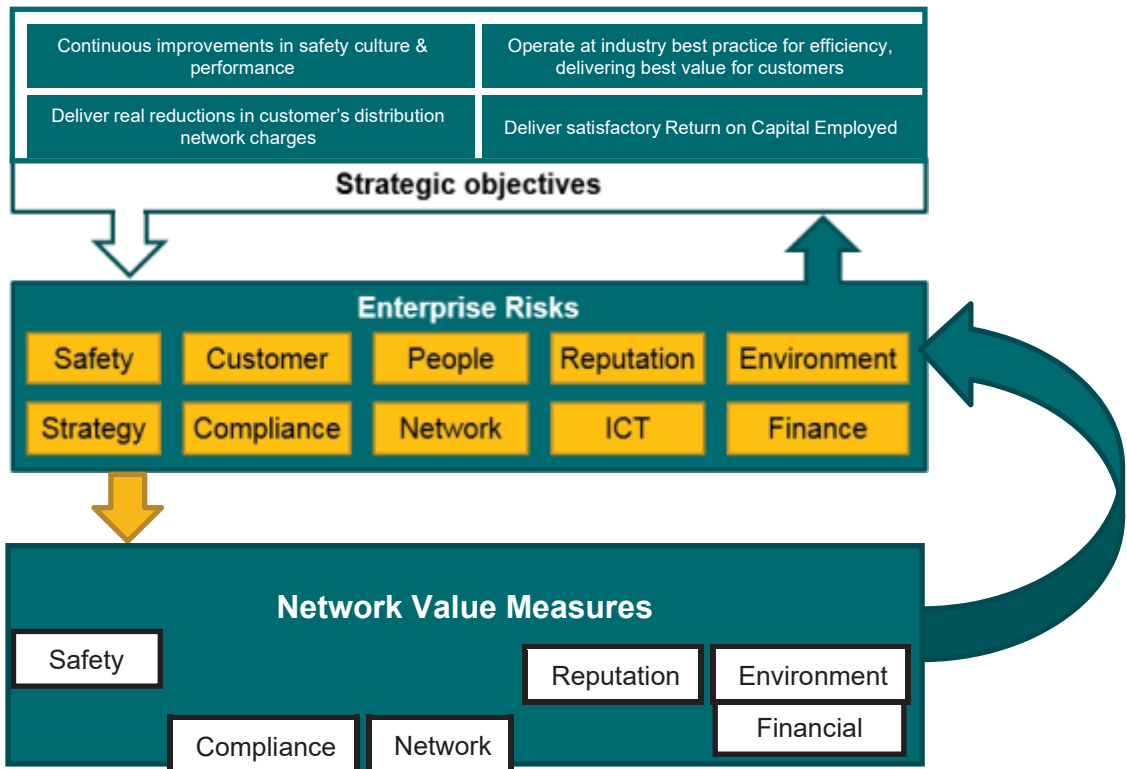


Figure 4 – Value Measure Alignment to Strategic Objectives and Enterprise Risks

Within Figure 4:

- **Safety** is concerned with the costs of injuries or illness
- **Compliance** reflects the costs of non-compliance with legal or regulatory obligations
- **Network** captures the costs associated with supply interruptions or inadequate capacity
- **Reputation** reflect to costs to Essential Energy of any impacts on our reputation, including with our customers, stakeholders and the media
- **Environment** includes the costs associated with bushfires and other environmental incidents
- **Financial** costs are direct financial impacts e.g. in terms of costs, savings or income

The Value Framework defines the cost components of each Network Value Measure and assigns a financial value to different magnitudes of outcome against each of these.

The cost components are then aggregated to determine common cost 'scales' for each Network Value Measure, which are aligned with the consequence scale from the corporate risk matrix (Insignificant, Minor, Moderate, Major, Severe).

The financial values assigned to each cost component and outcome are determined by considering the available evidence and selecting the most reasonable figure. This is established on a case-by-case basis using:

- Published literature, studies or guidance, based on reviews undertaken by Essential Energy and by external consultants.
- Feedback from customers about their willingness to pay.

- Estimations of actual costs incurred by Essential Energy.
- Estimations of actual costs incurred by customers.

### 3. Financial Parameters

This section sets out the detail of the cost components and financial parameters used for the Network Value Measures defined in Section 2. These are the values used within the C55 software for the 2019-24 portfolio optimisation.

#### 3.1 Safety

The cost of safety consequences are defined taking account of the following cost components:

- Costs to the customer
- Costs to Essential Energy

Costs to the customer have been considered from two perspectives:

- Value of Statistical Life (VoSL), as defined by the Department of the Prime Minister and Cabinet, Office of Best Practice Regulation<sup>2</sup>. This value is derived from willingness to pay studies and is intended for use in assessing the benefits of regulations designed to reduce the risk of physical harm.
- 'Value of Fatality Prevention', defined as the VoSL multiplied by a disproportion factor, chosen to reflect the level of risk and societal concern associated with electricity network assets

The current VoSL is \$4,522,940.

Costs to Essential Energy are assumed to comprise:

- Litigation
- Media Coverage
- Investigation Costs
- Compensation – Injury
- Penalties
- Other Costs<sup>3</sup>

Table 1 sets out the raw cost scale for the 'Costs to Essential Energy' approach. Within this, the underpinning costs of each outcome on the cost scale are defined in Appendix A, along with the source for these costs. For example, the total costs of a 'Minor' safety consequence comprise:

---

<sup>2</sup> Best Practice Regulation Guidance Note, Value of Statistical Life, December 2014

<sup>3</sup> 'Other' costs are included to ensure a minimum cost is assigned to 'Insignificant' safety incidents, rather than a zero cost



\$20,000 (Litigation Type: 'Minor – Magistrates Court', from Table 11)  
 +  
 \$0 (Media Coverage: 'No Media Attention', from Table 12)  
 +  
 \$10,000 (Investigation Cost: 'Small Investigation', from Table 13)  
 +  
 \$20,000 (Compensation – Injury: 'Minor Injuries', from Table 14)  
 +  
 \$20,000 (Penalties: 'Minor Breach', from Table 15)  
 =  
 \$70,000 (Total Cost: 'Minor' safety consequence)

**Table 1: Safety Cost Scale, derived from 'Costs to Essential Energy' approach**

Cost Components	Cost Scale (Description)				
	Insignificant	Minor	Moderate	Major	Severe
	(Low level injury/symptoms requiring first aid only)	(Non-permanent injuries/work related illnesses requiring medical treatment)	(Non-permanent injuries/work related illnesses requiring emergency surgery or hospitalisation)	(Permanent injuries/work related illnesses to one or more persons)	(One or more fatalities; significant permanent injuries/work related illnesses to one or more persons)
<b>Litigation</b>	Insignificant – No Court Action	Minor – Magistrates Court	Moderate – District / Magistrates	Major – Large financial consequences	Major – Large financial consequences
<b>Media Coverage</b>	No Media Attention	No Media Attention	Local Media	Local Media	State Media
<b>Investigation Cost</b>	Nil	Small Investigation	Small Investigation	Medium Investigation	Large Investigation
<b>Compensation - Injury</b>	Nil	Minor Injuries	Moderate Injuries	Extensive or Severe Injuries	Fatalities
<b>Penalties</b>	Nil	Minor Breach	Moderate Breach	Major Breach	Severe Breach
<b>Other Costs</b>	\$1,000	NA	NA	NA	NA
<b>Total</b>	<b>\$1,000</b>	<b>\$70,000</b>	<b>\$240,000</b>	<b>\$1,680,000</b>	<b>\$15,825,000</b>

On review, the 'Severe' costs derived from the 'Costs to Essential Energy' approach were deemed to be overly conservative, particularly if a safety disproportion factor is applied on top of these figures. On this basis, it was determined to use the Value of Statistical Life figure to represent the cost of 'Severe' safety consequences. The final safety cost scale that results from this decision is shown in Table 2.

**Table 2: Final Safety Cost Scale**

Cost Components	Cost Scale (Description)				
	Insignificant	Minor	Moderate	Major	Severe
	(Low level injury/symptoms requiring first aid only)	(Non-permanent injuries/work related illnesses requiring medical treatment)	(Non-permanent injuries/work related illnesses requiring emergency surgery or hospitalisation)	(Permanent injuries/work related illnesses to one or more persons)	(One or more fatalities; significant permanent injuries/work related illnesses to one or more persons)
<b>Litigation</b>	Insignificant – No Court Action	Minor – Magistrates Court	Moderate – District / Magistrates	Major – Large financial consequences	Value of Statistical Life
<b>Media Coverage</b>	No Media Attention	No Media Attention	Local Media	Local Media	
<b>Investigation Cost</b>	Nil	Small Investigation	Small Investigation	Medium Investigation	
<b>Compensation - Injury</b>	Nil	Minor Injuries	Moderate Injuries	Extensive or Severe Injuries	
<b>Penalties</b>	Nil	Minor Breach	Moderate Breach	Major Breach	
<b>Other Costs</b>	\$1,000	NA	NA	NA	
<b>Total</b>	<b>\$1,000</b>	<b>\$70,000</b>	<b>\$240,000</b>	<b>\$1,680,000</b>	

In the final application of the value framework, it was determined to also apply a disproportion factor to safety consequences. This is addressed through the Value Function weightings, described in Section 4.

### 3.2 Compliance

Compliance costs are broken down into the following cost components:

- Litigation
- Media coverage
- Investigation costs
- Penalties

Table 3 sets out the assumed mapping of different magnitudes of outcomes against each of these cost components, to the cost scale for Compliance.

**Table 3: Compliance Cost Scale**

Cost Components	Cost Scale (Description)				
	Insignificant	Minor	Moderate	Major	Severe
	(Indication of interest from Regulator; no fines incurred but administration costs may be payable)	(Warning/notifications from Regulator; minor financial penalties; short term duration litigation)	(Medium financial penalties; medium duration litigation)	(High financial penalties; lengthy litigation)	(Significant financial penalties; potential jail term; extensive litigation, loss of Licence)
<b>Litigation</b>	Insignificant – No Court Action	Minor – Magistrates Court	Moderate – District / Magistrates	Major – Large financial consequences	Severe – Supreme Court
<b>Media Coverage</b>	No Media Attention	Board Request	Local Media	State Media	National Media
<b>Investigation Cost</b>	Small Investigation	Small Investigation	Medium Investigation	Medium Investigation	Large Investigation
<b>Penalties</b>	Nil	Minor Breach	Moderate Breach	Major Breach	Severe Breach
<b>Total</b>	<b>\$10,000</b>	<b>\$60,000</b>	<b>\$180,000</b>	<b>\$1,125,000</b>	<b>\$10,400,000</b>

### 3.3 Network

The cost of network reliability impacts are assessed using a combination of the following methods:

- Value of Customer Reliability (VCR), **and**
- Costs to Essential Energy

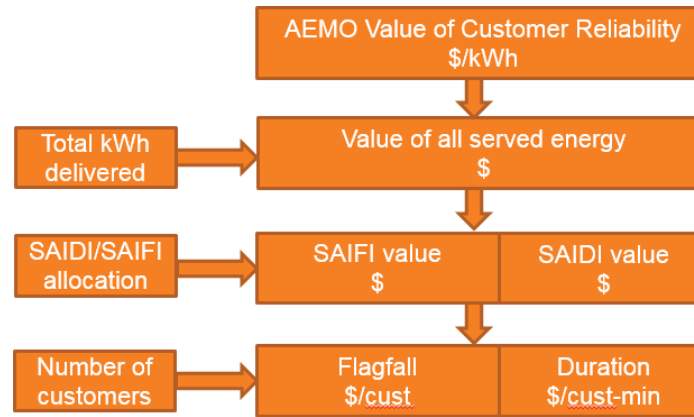
The VCR is calculated via two alternative methods:

- ‘Flagfall and duration’ method, for general scenarios which are representative of average customers
- ‘Energy interrupted’ method, for specific scenarios where the energy interrupted is known, or the load contains major industrial loads which are not representative of average customers

Both of these methods are aligned to AEMO’s published Value of Customer Reliability<sup>4</sup>.

<sup>4</sup> Value of customer reliability review, AEMO 2014

The methodology for calculating the 'Flagfall and duration' values is shown in Figure 5 - Flagfall and duration method.



**Figure 5 - Flagfall and duration method**

The values for both VCR methods are listed in Table 4: Value of customer reliability values

**Table 4: Value of customer reliability values**

Method	Value
Flagfall	\$47.58 / customer
Duration	\$0.375 / customer-minute
Energy Interrupted	\$42,331 / MWh

The specific methodology for applying these parameters is captured in the Asset Risk Management document.

Costs to Essential Energy comprise:

- Litigation
- Media Coverage
- Investigation Costs
- Customer Consultation/Communication
- Customer Contacts

Table 5: Network Cost Scalesets out the assumed mapping of different magnitudes of outcomes against each of these cost components, to the cost scale for Network.

**Table 5: Network Cost Scale**

Cost Components	Cost Scale (Description)				
	Insignificant	Minor	Moderate	Major	Severe
	(Less than 4 hour outage to a small group of customers; any event where the community / economic impact to the customers is considered to be insignificant)	(4 to 12 hour outage to a small group of customers; any event where the community / economic impact to the customers is considered to be minor)	(12 to 36 hour outage to a small group of customers; any event where the community / economic impact to the customers is considered to be moderate)	(36 hour to 1 week outage to a small group of customers; any event where the community / economic impact to the customers is considered to be major)	(Greater than 1 week outage to a small group of customers; aAny event where the community / economic impact to the customers is considered to be severe)
<b>Litigation Type</b>	Insignificant – No Court Action	Insignificant – No Court Action	Insignificant – No Court Action	Insignificant – No Court Action	Insignificant – No Court Action
<b>Media Coverage</b>	No Media Attention	Local Media	Local Media	State Media	National Media
<b>Investigation Costs</b>	Nil	Small Investigation	Small Investigation	Medium Investigation	Large Investigation
<b>Customer Consultation/ Communication</b>	Nil	Minimal e.g. media briefing / website	Minimal e.g. media briefing / website	Major consultation e.g. door knocks	Extensive Consultation
<b>Customer Contacts</b>	< 20% Increase	20 to 50% increase	50 to 100% increase	100 to 250% increase	> 250% increase
<b>Total</b>	<b>\$1,500</b>	<b>\$46,500</b>	<b>\$50,500</b>	<b>\$215,000</b>	<b>\$525,000</b>

### 3.4 Reputation

Reputation costs are broken down into the following cost components:

- Media Coverage
- Investigation Cost
- Other Costs<sup>5</sup>

Table 6: Reputation Cost Scale sets out the assumed mapping of different magnitude outcomes against each of these cost components, to the cost scale for Reputation.

<sup>5</sup> 'Other' costs are included to ensure a minimum cost is assigned to 'Insignificant' reputation incidents, rather than a zero cost

**Table 6: Reputation Cost Scale**

Cost Components	Cost Scale (Description)				
	Insignificant (Public concern restricted to local complaints or intra-industry knowledge / awareness)	Minor (Attention from media and or heightened concern from local community)	Moderate (Adverse national media/public/stakeholder attention sustained over 1-2 weeks)	Major (Significant adverse national media/public/stakeholder attention sustained over a month)	Severe (Significant adverse national media/public/stakeholders outcry)
Media Coverage	No Media Attention	Board Request	Local Media	State Media	National Media
Investigation Cost	Nil	Small Investigation	Medium Investigation	Medium Investigation	Large Investigation
Other Costs	\$1,000	Nil	Nil	Nil	Nil
<b>Total</b>	<b>\$1,000</b>	<b>\$20,000</b>	<b>\$80,000</b>	<b>\$125,000</b>	<b>\$400,000</b>

### 3.5 Environment

The cost of environmental consequences are captured separately for:

- Bushfire events
- Other environmental events

#### 3.5.1 Environment (bushfire)

The cost of bushfire events are broken down into the following cost components:

- Litigation
- Media Coverage
- Investigation Cost
- Penalties
- Community Cost (Bushfire)

Table 7: Environment (Bushfire) Cost Scale sets out the assumed mapping of different magnitude outcomes against each of these cost components, to the cost scale for Environment (Bushfire).

**Table 7: Environment (Bushfire) Cost Scale**

Cost Scale
------------

Cost Components	(Description)				
	Insignificant	Minor	Moderate	Major	Severe
	(Fire start)	(Land and livestock damage)	(1 - 20 properties lost)	(20 – 50 properties lost)	(50 + properties lost)
<b>Litigation</b>	Insignificant – No Court Action	Minor – Magistrates Court	Moderate – District / Magistrates	Major – Large financial consequences	Severe – Supreme Court
<b>Media Coverage</b>	No Media Attention	Board Request	Local Media	State Media	National Media
<b>Investigation Cost</b>	Small Investigation	Small Investigation	Medium Investigation	Medium Investigation	Large Investigation
<b>Penalties</b>	Nil	Minor Breach	Moderate Breach	Major Breach	Severe Breach
<b>Community Cost (Bushfire)</b>	Urban	Bush - remote	Rural	Bush – Accessible	Bush – Urban Fringe
<b>Total</b>	<b>\$14,167</b>	<b>\$106,875</b>	<b>\$1,519,286</b>	<b>\$32,375,000</b>	<b>\$85,400,000</b>

‘Community Costs’ are taken from Table 16 in Appendix A. These values reflect community impacts including safety, environment, property damage or other financial loss.

### 3.5.2 Environment (Other)

The cost of non-bushfire environmental events mirror those of bushfire events, but without the Community Cost element. As such, costs are broken down into the following components:

- Litigation
- Media Coverage
- Investigation Cost
- Penalties

Table 8: Environment (Other) Cost Scale sets out the assumed mapping of different magnitude outcomes against each of these cost components, to the cost scale for Environment (Other).

**Table 8: Environment (Other) Cost Scale**

Cost Components	Cost Scale (Description)				
	Insignificant (Limited localised damage to minimal area of low significance)	Minor (Minor impact on biological or physical environment or heritage item over a limited area)	Moderate (Moderate damage over a large area or affecting ecosystem, or heritage item)	Major (Serious widespread, long term damage to ecosystem or heritage item)	Severe (Very serious long term, wide spread impairment of ecosystem or heritage item)
<b>Litigation</b>	Insignificant – No Court Action	Minor – Magistrates Court	Moderate – District / Magistrates	Major – Large financial consequences	Severe – Supreme Court
<b>Media Coverage</b>	No Media Attention	Board Request	Local Media	State Media	National Media
<b>Investigation Cost</b>	Small Investigation	Small Investigation	Medium Investigation	Medium Investigation	Large Investigation
<b>Penalties</b>	Nil	Minor Breach	Moderate Breach	Major Breach	Severe Breach
<b>Total</b>	<b>\$10,000</b>	<b>\$60,000</b>	<b>\$180,000</b>	<b>\$1,125,000</b>	<b>\$10,400,000</b>

### 3.6 Financial

The 2019-24 portfolio optimisation accounts for financial benefits realised as a result of investments. These are broken down into the following components:

- Reduced Opex
- Reduced Capex
- Financial Return

Financial benefits can be applied exactly, if known. Alternatively, they are estimated in accordance with Table 9: Financial Cost Scale.

**Table 9: Financial Cost Scale**

Insignificant	Minor	Moderate	Major	Severe
\$125,000	\$2,625,000	\$15,000,000	\$37,500,000	\$70,000,000



## 4. Value Function

The overall value function is a weighted calculation. Table 10: Value Function Weightings summarizes the weightings applied to each Network Value Measure for the 2019-24 portfolio optimisation.

**Table 10: Value Function Weightings**

Network Value Measure	Weighting
Safety	3
Compliance	1
Network	1
Reputation	1
Environment	1
Financial	1

The weighting of 3 for safety represents a disproportion factor for safety investments, as a multiplier on the baseline Value of Statistical Life. This value is selected based on a review of current practice amongst other DNSPs, as well as from consideration of the nature of safety hazards and risks arising from the electrical network.

## Appendix A: Component Cost Tables

This appendix sets out the component costs that underpin the Value Measure cost scales set out in Section 3. These reflect figures defined by Cutler Merz in their work on the top-down expenditure versus risk modelling work (figures defined March 2017).

**Table 11: Litigation**

Level	Typical Event	Value (\$)
Insignificant – No Court Action	Forced outage, short duration interruption	\$0
Minor – Magistrates Court	Minor injury or property damage	\$20,000
Moderate – District / Magistrates	Serious Injury	\$50,000
Major – Large financial consequences	Fatality	\$500,000
Severe – Supreme Court	Catastrophic Bushfire Event; Multiple Fatality due to negligence; Major system disturbance	\$5,000,000

**Table 12: Media Coverage**

Level	Typical Event	Value (\$)
No Media Attention	Low consequence incident	\$0
Board Request	Fire event.	\$10,000
Local Media	Fatality;	\$30,000
	Local fire event	
State Media	Fatality;	\$75,000
	Large and obvious fire event	
National Media	Catastrophic Bushfire Event; Multiple Fatality due to negligence; Major system shutdown	\$150,000

**Table 13: Investigation Cost**

Level	Typical Event	Value (\$)
Small Investigation	Small ENS;	\$10,000
	Local Fire Start	
Medium Investigation	Major Fire Event; Large scale customer impact; Major Environmental spill	\$50,000
Large Investigation	Catastrophic Bushfire Event; Multiple Fatality due to negligence; Major system disturbance	\$250,000

**Table 14: Compensation - Injury**

Level	Value (\$)
Minor Injuries	\$20,000
Moderate Injuries	\$100,000
Extensive or Severe Injuries	\$600,000
Fatalities	\$10,000,000

**Table 15: Penalties**

Level	Value (\$)
Minor Breach	\$20,000
Moderate Breach	\$50,000
Major Breach	\$500,000
Severe Breach	\$5,000,000

**Table 16: Environment (Bushfire)**

Level	Value (\$)
Urban	\$4,167
Bush - remote	\$46,875
Rural	\$1,339,286
Bush – Accessible	\$31,250,000
Bush – Urban Fringe	\$75,000,000

**Table 17: Customer Consultation/Communication**

Level	Typical Event	Value (\$)
Nil	Low consequence incident	\$0
Minimal e.g. media briefing / website	Moderate consequence incident	\$3,000
Moderate consultation/communication e.g. letter drops	Major customer impact	\$30,000
Major consultation/communication e.g. door knocks	Widespread area reliability event	\$75,000
Extensive consultation/communication e.g. focus groups	Major system shutdown	\$100,000

**Table 18: Customer Contacts**

Level	Typical Event	Value (\$)
< 20% Increase	Low consequence incident	\$1,500
20 to 50% increase	Moderate consequence incident	\$3,500
50 to 100% increase	Major customer impact	\$7,500
100 to 250% increase	Widespread area reliability event	\$15,000
> 250% increase	Major system shutdown	\$25,000