

Value Framework

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Value Framework

1. Purpose

To provide a consistent approach in assessing and quantifying the economic and financial value of investments.

2. Scope

This framework can be applied to all investments that require economic justification.

3. Introduction

Endeavour Energy (**Endeavour**) seeks to develop and manage a risk-quantified & optimised investment portfolio. In pursuit of this goal, whenever possible, we quantify risks and benefits in monetary value (\$). This enables the efficient allocation of capital and operational expenditure to drive and maximise value for our customers and stakeholders. We use the term 'value' as the net benefit afforded by individual investments and the portfolio of investments.

To optimise the value of investments, we apply a consistent approach in quantifying risks and benefits, and determine the timing for investments based on the need and the best overall value provided by the portfolio. This is the basis of the value framework and is underpinned by:

- The National Electricity Objective (**NEO**)¹ and the *National Electricity Rules (NER)*
- Our [Investment Management Framework](#) (*Company Policy 2.6*)
- Our Investment Decision Making guideline
- The concept that investments should be made based on the highest net benefit to all those that produce, consume, and transport electricity
- Using a rational economic approach to allow the comparison of dissimilar investments.
- Using a consistent and repeatable approach to assess all the benefits, risks, and costs.
- Ensuring that both financial and non-financial benefits are included, where their contributions are aligned to a common scale, and
- Measuring its alignment to the organisation's corporate strategy & risk appetite.

Our value framework is customer centric – with value for our customers at its core – and so is on occasion referred to as the Customer Value Framework.

3.1 Value-Based Decision-Making

Endeavour uses an Investment Decision Support Tool (**IDST**) to facilitate value-based decision making.

The Net Present Value (**NPV**) for each investment is calculated using a value function that incorporates a selected set of relevant value measures. A positive NPV is sought in justifying a business case, unless the investment is driven by an explicit licence condition. In this case the solution with the highest NPV (even if negative) will be adopted.

Additionally, the NPV of an investment is used to determine its standing among other investments competing for resources in a constrained optimisation process.

3.2 Value Function

A value function provides a means of determining how value measures are included in total value calculations. It allows the organisation to customise weightings of different value measures to align

¹ The objective (**NEO**) of the *National Electricity Law* is to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability, and security of supply of electricity, and
- (b) the reliability, safety, and security of the national electricity system.

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with strategic objectives. For example, an increased emphasis on environmental risks would prioritise investments that promote sustainability and mitigate bushfire risk.

At present all value measures are equally weighted.

3.3 Value Measure

A value measure is a characteristic used to determine the worth of an investment. Value measures are the different components that, when combined (via a value function) either:

1. Sum the value of an investment – used to justify the investment and forms part of the NPV, or
2. Provide a reporting measure that is used by the business for other decision-making purposes.

Value measures are categorised into elements that contribute to the overall value of an investment. These include:

- Risk – for example, reliability risk, safety risk (public and employee), financial risk, bushfire risk
- Benefit – includes financial and non-financial benefits such as KPIs
- Cost – includes capex and opex
- Condition – for example, asset condition (health score)
- Resource – for example, number of hours of agent time saved
- Service measure – for example, SAIDI, SAIFI

4. Our Value Measures

4.1 Alignment with Corporate Strategic Objectives

Our value measures can align to our corporate objectives ensuring that:

- Asset replacement and augmentation projects aim to mitigate risk to the public and minimise adverse impact to the environment
- Network reliability and quality of service are provided at an affordable price
- The business will target operational excellence, and achieve customer and capital efficiency
- We embrace technological innovation to grow the business and achieve intergenerational sustainability
- The company will provide the best place for work, the right tools and appropriate training to equip employees to thrive in their jobs.

Table 1 shows value measures are broadly grouped under specific objectives. We can add or remove value measures to align with our evolving corporate objectives.

It should be noted that, the list below is not exhaustive, and some value measures may be associated with more than one objective. The full list of value measures and their associated calculation methodologies are detailed in Appendix A.

Table 1 Value measures and their objectives

Value Measures	Strategic Objectives
Bushfire Risk, Environmental Risk, Employee & Contractor Safety Risk, Public Safety Risk, CO2 reduction	Safety and Environment
Change in Load Transfer Capacity, Complaint Risk, Compliance Risk, Customer Cost Savings, Customer Satisfaction Benefit, Customer	Customer and Communities

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Value Measures	Strategic Objectives
Service Benefit, Cyber Security Risk, Reliability Risk (EUE), Renewable Capacity, Voluntary Load Curtailment	
Financial Risk, Reputation Risk, STPIS, SAIDI, SAIFI	Performance
Energy Transition Enablement, Technology Innovation & Reuse Benefit, New Business Opportunity – Option Value	Growth Through Innovation
Business Continuity Risk, Employee Experience Benefit, Employee Productivity, Skills and Training	Employee Engagement

4.2 How we apply our value measures

Value measures are used to either:

1. Form the value of an investment – used to justify an investment and forms the basis of the benefits in an NPV, or
2. Provide a measure that is used by the business for other decision-making purposes.

The value measures available for investment justification are either:

- Economic in nature and aligned with the principles of the National Electricity Rules, and are typically derived from and aligned with AER guidance material, or
- Financial in nature and linked to direct savings for connected customers.

Value measures used for investment justification are combined to summate the overall value that an investment is delivering for our customers. These measures are listed on the left column in Table 2.

Our framework also contains value measures which have been established to assist with forward scenario planning. These value measures are not used in the justification of investments, but rather assist in understanding the impact of various optimised portfolios. We aim to use these measures to facilitate decision-making by understanding the potential impact/benefit from pursuing any given strategy.

Table 2 provides a high-level view of these value measures, however, refer to Appendix A for the complete set of value measures and the associated value functions.

Note that justification value measures can also be used for future scenario planning and reporting.

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Table 2 Value Measure uses

Justification of Investments	Scenario Planning & Reporting
<p>Cost</p> <ul style="list-style-type: none"> • CAPEX Planned • CAPEX Reactive • OPEX Planned • OPEX Reactive • Contingency <p>Benefit</p> <ul style="list-style-type: none"> • Cost Avoidance - CAPEX • Cost Avoidance - OPEX • Cost Savings - CAPEX • Cost Savings - OPEX • Customer Cost Savings • Customer Land Value³ • Customer Service Benefit • Non-Network Option Provider Costs³ • Technology Innovation & Reuse Benefit <p>Risk</p> <ul style="list-style-type: none"> • Asset Risk (Model)¹ • Bushfire Risk^{2,3} • Business Continuity Risk • Change In Load Transfer Capacity⁴ • Complaint Risk • Compliance Risk • Costs for Non RIT-D Proponent Parties⁴ • Cyber Security Risk • Decommissioning Costs³ • Difference In Timing of Unrelated Expenditure⁴ • Electricity Energy Losses⁴ • Employee and Contractor Safety Risk • Energy Transition Enablement • Environmental Risk • Financial Risk • Other Classes of Market Benefits⁴ • Planned Routine Maintenance • Public Safety Risk • Reliability Risk • Unplanned Corrective Maintenance³ • Voluntary Load Curtailment⁴ 	<p>All justification value measures stated plus the following:</p> <p>Benefit</p> <ul style="list-style-type: none"> • Ancillary Services³ (income) • Customer Satisfaction Benefit • Data Collection, Sharing and Reuse • Demand Management Incentive Scheme³ (DMIS) (partial cost recovery) • Employee Experience Benefit • Employee Productivity • New Business Opportunity - Option Value • Regulatory Return - Total Recovery • Regulatory Return - Tax Allowance • Renewable Capacity • Revenue Increase • Skills and Training³ • Service Target Performance Incentive Scheme³ (STPIS) (income) • Unregulated Revenue³ <p>Risk</p> <ul style="list-style-type: none"> • Reputation Risk <p>Service Measure</p> <ul style="list-style-type: none"> • CO2 Reduction • Employee Lives Lost • Public Lives Lost • System Average Interruption Duration Index³ (SAIDI) • System Average Interruption Frequency Index³ (SAIFI) • Unserved Energy (MWh)

1. Asset Risk model comprises Reliability Risk, Bushfire Risk, Public & Employee Safety Risk, Financial Risk and Compliance Risk
2. Bushfire Risk is included in the Asset Risk Model for assets, and in the Manual Risk model for investments
3. Manual Risk model for investments. It has provisions to enter value measure outputs calculated external to the IDST
4. Value measure required by AER's Final RIT-D Application Guidelines (Appendix A)

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5. Financial Analysis and Portfolio Optimisation

The value of an investment is determined using the discounted cashflow method, where incremental cashflows including all relevant costs, mitigated risk, and other financial and non-financial benefits, are discounted back to the period in which the investment is valued. This is the NPV of the investment.

Mitigated risk or net benefit that can be derived from an investment is the difference between the baseline and outcome risk or cost.

Endeavour uses the IDST to perform financial analysis on each investment. These investments form the unconstrained long-term plan (**LTP**) of our investment portfolio.

The IDST can then be set multiple constraints to derive an optimised investment portfolio based on available resources, operational and performance targets. All value measures can be used to constrain a portfolio during optimisation with the aim of achieving a maximised value solution.

An optimised portfolio aims to deliver the highest total value to our customers, while satisfying all constraints. The optimised view also assists the organisation's capital planning (i.e., annual budget and rolling two-year plan) and identify areas and opportunities for improvements.

6. Accountabilities

Role	Responsibilities
Chief Executive Officer	Approves the Value Framework
Investment Management Committee	Owner of the Value Framework
ELT Members	Endorse the Value Framework
Head of Commercial Finance	Reviews and endorse the Value Framework
Investment Portfolio Manager	Administrator of the Value Framework
Managers	Ensure employees in their area understands and apply the value framework for all investments
Employees	have the authority and responsibility to comply with this procedure.

7. Terms and definitions

Term	Definition
Constraint	A target or limit placed on a value measure for a portfolio of investments and for a series of years (for example, '\$250M of capital in the AUGEX portfolio for the next 3 years'). The IDST will then adjust investments to satisfy the constraints.
Financial Metrics	Financial metrics are value measures used for financial performance measurements. These include costs and financial benefits but exclude risk mitigation or non-financial benefits.
Net Present Value (NPV)	The difference between the present value of cash or benefit inflows and the present value of cash outflows over a period.
Investment Decision Support Tool (IDST)	A software tool that calculates the NPV of investments to facilitate value-based decision making on the entire portfolio.

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Term	Definition
Optimisation	The process of adjusting a portfolio's investments to make value measures fit below any financial, resource, service measure, or timing constraints, while maximising the value to the organisation.
Value	Value is the net benefit of an investment. It is a number summarising the total merits of an investment, based on its costs, benefits, mitigated risk, and other value measures included in the Value Function.
Value Function	A Value Function provides a means of determining how value measures are included in total value calculations. It specifies which value measures are included in the calculation and how they are weighted.
Value Measure	A Value Measure is a characteristic that is used to determine the worth of an investment.

8. Document information

Content Coordinator	Investment Portfolio Manager
Process Category	Governance
Amendment No	
Approved By	
Approved Date	
Review Date	
Relevant Legislation	None
Relevant Standards/ Codes	ISO 31000:2018 Risk management – Guidelines ISO 55001:2014 Asset management – Management systems – Requirements
Related Policies	2.0.5 Group Board Policy Risk Management 2.6 Investment Management Framework
Related Procedures/ Workplace Instructions	None

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Appendix A – Value Measure Description and Calculation

Value Measure	Description in Endeavour context	Calculation method	Purposes
ANCILLARY SERVICES	Revenue gained from providing ancillary services provided such as RERT, Reactive power support, Contribution to voltage/ PF support, and backup power capabilities	Input only - no calcs	Planning & reporting
ASSET RISK	Developed for Predictive Analytics, it uses a 'Health and PoF' internal value measure to calculate Health, Bushfire Risk, Environment Risk, Financial Risk, Maintenance Risk, Safety Risk, VCR Risk, Financial PoF, Environmental PoF, Bushfire PoF, Reliability PoF, Safety PoF, SAIDI, SAIFI and STPIS	The calculation methodology uses probability density functions to calculate the probability of failure for non-repairable assets. This forms the basis of all associated risk calculations. For repairable (linear) assets, the hazard rate probability of failure is used to calculate asset risks.	Investment justification/ Planning & reporting
BUSHFIRE RISK	Risk of community economic loss from a bushfire caused by asset failure	$Risk = Asset\ PoF * failure\ starts\ fire\ likelihood * BushfireAssetTypeFactor1 * BushfireAssetTypeFactor2 * Asset\ proximity\ to\ vegetation\ LoC * Asset\ proximity\ to\ vegetation\ LoC * Bushfire\ cost\ of\ consequence\ (CoC) * BushfireAssetFactor1 * Favourable\ bushfire\ weather\ LoC * Time\ of\ day\ fire\ starts\ LoC * Bushfire\ suppression\ factor * BushfireSystemFactor1$	Investment justification/ Planning & reporting
BUSINESS CONTINUITY RISK	Business Continuity Risk measures the mitigation of a risk that would prevent the organization from continuing to deliver an acceptable level of service following a disruptive event	$Business\ Continuity\ Risk = Employees\ Affected * Impact\ Level * Recovery\ Time / Hours\ per\ Year * Employee\ Productivity\ Value * Risk\ Likelihood$	Investment justification/ Planning & reporting
CAPEX	CAPEX	$CAPEX = CAPEX\ Planned + CAPEX\ Reactive$	Investment justification/ Planning & reporting
CAPEX PLANNED	CAPEX Planned	Input only - no calcs	Investment justification/ Planning & reporting
CAPEX REACTIVE	CAPEX Reactive	Input only - no calcs	Investment justification/ Planning & reporting
CHANGE IN LOAD TRANSFER CAPACITY	Monetised value of added load transfer flexibility for the distribution network, typically measured using VCR	Input only - no calcs	Investment justification/ Planning & reporting

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Value Measure	Description in Endeavour context	Calculation method	Purposes
CO2 REDUCTION	Quantified value attributed to avoided or reduced GHG emissions expressed in tonnes of CO2 equivalent (tCO2e). It includes contributions from avoided SF6 releases and scope 1 emissions	$CO2\ Reduction = Avoided\ SF6\ Releases * SF6\ to\ CO2\ Conversion\ Factor + scope\ 1\ emission\ reductions * CO2\ per\ MWh * \$/tonne\ CO2$	Planning & reporting
COMPLAINT RISK	Impact of proactive investment on the volume and severity of complaints based on the cost of complaint handling	$Risk = (Number\ Complaint\ Enquiry * Projected\ Unit\ Rate) + (RHL * RHL\ Unit\ Rate) + (Number\ Level\ 1 * Level1\ Unit\ Rate) + (Number\ Level\ 2 * Level2\ Unit\ Rate) + (Number\ Level\ 3 * Level3\ Unit\ Rate)$	Investment justification/ Planning & reporting
COMPLIANCE RISK	Cost to the company due to Endeavour breaking the law and/or breaching its licence conditions	$Risk = PoF * (Size\ of\ Investigation + Safety\ Legislation\ Breach + Environmental\ Legislation\ breach + NEM\ Breach\ of\ Compliance + Litigation)$	Investment justification/ Planning & reporting
CONTINGENCY	The costs associated to the Contingency Account in the forecast	Input only - no calcs	Justify investment/ Planning & reporting
COST AVOIDANCE - CAPEX	Financial benefits to the customer in the form of annual CAPEX Cost avoidance (a form of financial subsidy)	$Cost\ Avoidance\ CAPEX = CAPEX\ Cost\ Savings * Benefit\ Likelihood$	Investment justification/ Planning & reporting
COST AVOIDANCE - OPEX	Financial benefits to the customer in the form of annual OPEX Cost avoidance (a form of financial subsidy)	$Cost\ Avoidance\ OPEX = OPEX\ Cost\ Savings * Benefit\ Likelihood$	Investment justification/ Planning & reporting
COSTS FOR NON RIT-D PROPONENT PARTIES	Costs For Non RIT-D Proponent Parties measures the additional project costs not captured by RIT-D proponents but are incurred by other market participants because of a RIT-D project. This value measure assigns a positive value to investments which help mitigate a portion of these costs	Input only - no calcs	Investment justification/ Planning & reporting
COST SAVINGS - CAPEX	Financial benefits to the customer in the form of annual CAPEX cost savings	$Financial\ Benefits - CAPEX = (CAPEX\ Cost\ Savings - CAPEX\ Cost\ Increase) * Benefit\ Likelihood$	Investment justification/ Planning & reporting
COST SAVINGS - OPEX	Financial benefits to the customer in the form of annual OPEX cost savings	$Financial\ Benefits - OPEX = (OPEX\ Cost\ Savings - OPEX\ Cost\ Increase) * Benefit\ Likelihood$	Investment justification/ Planning & reporting

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Value Measure	Description in Endeavour context	Calculation method	Purposes
CUSTOMER COST SAVINGS	Financial benefits that customers will receive because of the investment, e.g., wholesale price suppression, ancillary services price suppression, avoided transmission costs, DLF or DUOS charges	Customer cost savings = Expected annual customer cost savings * Likelihood of benefits realised	Investment justification/ Planning & reporting
CUSTOMER LAND VALUE	Increase or decrease in customer land value due to undergrounding of mains assets	Input only - no calcs	Investment justification
CUSTOMER SATISFACTION BENEFIT	Monetised impact of improving Endeavour's brand value across a portion of the customer base. Same as Public perception benefit	Benefit = Value to increase NPS score by 1 * Percentage of customers impacted * Benefit likelihood	Planning & reporting
CUSTOMER SERVICE BENEFIT	Financial benefits of saving End Customers and internal IT Agents time during a service interaction	Customer Time Savings = (Duration in Minutes * Number of Customer Requests Impacted * Value of Customer Time * Benefit Likelihood/100) Agent Time Savings = (Duration in Minutes * Number of Customer Requests Impacted * Value of Agent Time * Benefit Likelihood/100) Measure = (Call Waits Reduced Below STPIS Threshold / Total Calls) * 100 * CS_STPIS	Investment justification/ Planning & reporting
CYBER SECURITY RISK	Mitigation of the risk of cyber security breaches. Used to capture the multi-dimensional aspects of an Investment/Project that impact on cyber security concerns by applying the corporate risk matrix	Cyber Security Risk = Risk Consequence * Risk Likelihood	Investment justification/ Planning & reporting
DATA COLLECTION, SHARING AND REUSE	Data Collection, Sharing & Reuse measures the value of enhancements to the organization's data landscape. This includes hardware and software contributing to availability of valuable information, reporting and other business intelligence usages	Data Collection, Sharing & Reuse = Contribution to Data Sharing Reuse * ((Capture New Data Weight * Capture New Data) + (Speed Frequency Data Access Weight * Speed Frequency Data Access) + (Data Utility Level Weight * Data Utility Level) + (Number Users Data Use Weight * Number Users Data Use) + (Accuracy Of Data Weight * Accuracy Of Data) + (Data Tracking History Over Time Weight * Data Tracking History Over Time)) * CAPEX Spend	Planning & reporting

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Value Measure	Description in Endeavour context	Calculation method	Purposes
DECOMMISSIONING COSTS	The expected costs associated with taking equipment offline and assigns a positive value to investments which result in a reduction of this expense This category in the RIT-D process ensures decommissioning costs are captured in the cost/benefit assessment	Input only - no calcs	Investment justification
DEMAND MANAGEMENT INCENTIVE SCHEME (DMIS)	Value of and eligibility for DMIS reimbursement	Input only - no calcs	Planning & reporting
DIFFERENCE IN TIMING OF UNRELATED EXPENDITURE	Benefits of avoided intervention costs	Input only - no calcs	Investment justification/ Planning & reporting
ELECTRICITY ENERGY LOSSES	Monetised value of avoided electrical energy losses in the distribution system	Input only - no calcs	Investment justification/ Planning & reporting
EMPLOYEE EXPERIENCE BENEFIT	Financial impact of influencing employee turnover or attraction of new employees. It is intended for use in a value function and the avoided risk is a positive contributor to investment value	Employee Experience Benefit = ((Number of Candidates Attracted * Workplace Impact On Attractiveness * Value per Candidate Attracted) + Number of Employees Affected * Workplace Impact On Productivity * Employee Cost per Year) + (Number of Employees At Risk Of Leaving * Workplace Impact On Productivity * Employee Cost to Replace) * Benefit Likelihood	Planning & reporting
EMPLOYEE LIVES LOST	Calculates the number of lives lost/saved by this investment	Employee Lives Lost = (Baseline Employee Safety - Outcome Employee Safety) / Value of Statistical Life (VSL)	Planning & reporting
EMPLOYEE PRODUCTIVITY	Financial benefit of increased employee productivity due to working condition improvements	Employee Productivity = ((Field Employee Costs Saved + Office Employee Costs Saved + Manager Costs Saved) * Probability Of Repurposing)) - (Field Employee Additional Costs + Office Employee Additional Costs + Manager Additional Costs)	Planning & reporting
ENERGY TRANSITION ENABLEMENT	To capture value of investment that are conducive to transitioning to DSO and renewable/ clean energy future	Input only - no calcs	Investment justification/ Planning & reporting

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Value Measure	Description in Endeavour context	Calculation method	Purposes
ENVIRONMENTAL RISK	Risk of direct environment remediation costs	$Risk = Oil\ Risk + SF6\ Risk$ $Environmental\ Risk\ Value = (Baseline_{Oil/SF6} - Outcome_{Oil/SF6}) + Energy\ Savings\ Value$ $Oil\ Risk = Volume\ related\ Oil\ Spilled\ Consequence * Impacted\ Region * Site\ Sensitivity * Site\ Sold\ Factor * Number\ Of\ Assets * PoF * Likelihood\ of\ Oil\ Spill$ $SF6\ Risk = SF6\ Qty\ (kg) * SF6\ Unit\ Cost * Number\ of\ Assets * PoF * Likelihood\ of\ SF6\ Leakage$ $Energy\ Savings\ Value = Benefit\ Likelihood * Power\ Savings * CO2\ per\ MWh * Cost\ per\ tCO2e$	Investment justification/ Planning & reporting
FINANCIAL RISK	Reactive replacement due to asset failure, and annual maintenance cost for an ageing asset	$Risk = (Repairs + Replacement) * No.\ Assets * PoF$ $Replacement = Replacement\ Cost$ $Repairs = (Duration\ Of\ Repair * Hourly\ Rate) * Num\ of\ People$	Investment justification/ Planning & reporting
NEW BUSINESS OPPORTUNITY - OPTIONS VALUE	Return of investment in technologies that have a future value when scaling up or installing multiple units if test installation proves successful. Measured by call option value (covers future enablement benefits)	$Call\ option\ price = ((Normal\ distribution\ of\ D1) * Current\ stock\ price) - ((Normal\ distribution\ of\ D2) * Strike\ price * (e^{(Risk\ free\ interest\ rate * Time\ to\ maturity)}))$ where D1 and D2 is dependent on the volatility from the project technology class	Planning & reporting
NON-NETWORK OPTION PROVIDER COSTS	The expected costs associated with non-network providers. This represents the costs of procuring these services as an alternative to network investment	Input only - no calcs	Investment justification/ Planning & reporting
OPEX	OPEX	$OPEX = OPEX\ Planned + OPEX\ Reactive$	Investment justification/ Planning & reporting
OPEX PLANNED	OPEX Planned	Input only - no calcs	Investment justification/ Planning & reporting
OPEX REACTIVE	OPEX Reactive	Input only - no calcs	Investment justification/ Planning & reporting

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Value Measure	Description in Endeavour context	Calculation method	Purposes
OTHER CLASSES OF MARKET BENEFITS	Market benefits not otherwise captured in the value of EUE - required for RIT-D	Input only - no calcs	Investment justification/ Planning & reporting
PUBLIC LIVES LOST	Calculates the number of lives lost/saved by this investment	Public Lives Lost = (Baseline Public Safety - Outcome Public Safety) / Value of Statistical Life (VSL)	Planning & reporting
REGULATORY RETURN - DEPRECIATION	Regulatory Return for adding assets onto the RAB	Based on PTRM Model	Reporting
REGULATORY RETURN - DEPRECIATED VALUE	Regulatory Return for adding assets onto the RAB	Based on PTRM Model	Reporting
REGULATORY RETURN - RETURN OF CAPITAL	Regulatory Return for adding assets onto the RAB	Based on PTRM Model	Reporting
REGULATORY RETURN - RETURN ON CAPITAL	Regulatory Return for adding assets onto the RAB	Based on PTRM Model	Reporting
REGULATORY RETURN - TAX ALLOWANCE	Regulatory Return for adding assets onto the RAB	Based on PTRM Model	Reporting
REGULATORY RETURN - TOTAL RECOVERY	Regulatory Return for adding assets onto the RAB	Based on PTRM Model	Reporting
RELIABILITY RISK	Expected unserved energy for an outage and its associated consequence of failure	Risk = Peak load * Load Factor * PoF * Adjustment factor (1.3) * outage duration * VCR (\$/MWh)	Investment justification/ Planning & reporting
RENEWABLE CAPACITY	Financial benefits of increased renewable capacity resulting from the investment, assuming customers would pay more for clean, renewable energy (future enablement). It covers Hosting Capacity, Value of Distributed Energy Resources (VaDER), and Community Resilience	Renewable capacity = Renewable capacity added or removed (MWh) * Renewable capacity value per MWh * Benefits likelihood	Planning & reporting
REPUTATION RISK	Cost of adverse impact due to public grievances	Risk = Risk Consequence * Risk Likelihood	Planning & reporting

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Value Measure	Description in Endeavour context	Calculation method	Purposes
REVENUE INCREASE	Financial benefits in the form of annual revenue increases	Revenue Increase Benefit = Annual CAPEX Cost Savings * Benefit Likelihood	Planning & reporting
SAFETY RISK - EMPLOYEES & CONTRACTORS	Risk to Endeavour employees and contractors because of asset failure	Risk = LoC * CoC * Disproportionate factor * PoF CoC = No. Of Casualties * VSL * Compensation Amount factor Compared to fatality Disproportionate factor = 3	Investment justification/ Planning & reporting
SAFETY RISK - PUBLIC	Risk to the public because of asset failure	Risk = LoC * CoC * Disproportionate factor * PoF CoC = No. Of Casualties * VSL * Compensation Amount factor Compared to fatality Disproportionate factor = 6 (fatality or serious injury) or 3 (minor injury) based on GNV 1119	Investment justification/ Planning & reporting
SAIDI RURAL	SAIDI - Rural - EUE Model Calculates the rural per person SAIDI value	SAIDI - Rural - EUE Model = Number Current Assets * Failures Per year * No. of Customers impacted * Outage duration / Total Customers * (1 – Network Percent Urban)	Planning & reporting
SAIDI URBAN	SAIDI - Rural - EUE Model Calculates the rural per person SAIDI value	SAIDI - Rural - EUE Model Calculates the rural per person SAIDI value	Planning & reporting
SAIFI RURAL	SAIFI - Rural - EUE Model Measures the per person SAIFI Rural Value	SAIFI - Rural - EUE Model = Average Failures Per Year * No. of Customers impacted / Total Customers * (1 – Network Percent Urban)	Planning & reporting
SAIFI URBAN	SAIFI - Urban - EUE Model Measures the per person SAIFI Urban Value	SAIFI - Urban - EUE Model = Average Failures Per Year * No. of Customers impacted / Total Customers * Network Percent Urban	Planning & reporting
SKILLS AND TRAINING	Value gained from training and beneficial programs for employees	Input only - no calcs	Planning & reporting
STPIS	Financial incentives for EE to maintain or improve its service performance	Risk = (Customer Minutes Interruption per Outage Urban * System SAIDI Incentive Rate Urban * Customers Number Urban Impacted * VCR) + (Customer Interruption per Outage Urban * System SAIFI Incentive Rate Urban * Customers Number Urban Impacted * VCR) + (Customer Minutes Interruption per Outage Rural * System SAIDI Incentive Rate Rural * Customers Number Rural Impacted * VCR) + (Customer	Planning & reporting

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Value Measure	Description in Endeavour context	Calculation method	Purposes
		$\text{Interruption per Outage Rural} * \text{System SAIFI Incentive Rate Rural} * \text{Customers Number Rural Impacted} * \text{VCR}$	
TECHNOLOGY INNOVATION AND REUSE BENEFIT	The monetised benefit of reusing technology or investing in technology that can be reused.	$\text{Technology Reuse Benefit} = \text{Total Investment Spend} * \text{Plans For Reuse} * \text{Percent Project is Enabler}$	Investment justification/ Planning & reporting
TOTAL INVESTMENT COST	Total investment cost	$\text{Total Investment Cost} = \text{CAPEX} + \text{OPEX} + \text{Contingency}$	Investment justification/ Planning & reporting
UNREGULATED REVENUE	Additional unregulated revenue generated	Input only - no calcs	Planning & reporting
UNSERVED ENERGY (MWH)	The amount of end-customer demand (measured in MWh) that cannot be supplied within a region due to a deficiency of generation or interconnector capacity	$\text{Unserved energy} = \text{Select load profile from Load Duration Curve Table (T13_EUELDC) and use integration method to calculate area where peak load} > \text{installed and peak load} > \text{firm to calculate total unserved energy}$	Planning & reporting
VEHICLE MODEL (Note: This model has multiple measures)	Developed for Predictive Analytics, it models the date in which a vehicle should be replaced	The Copperleaf Vehicle model considers In-Service date, replacement cost, average usage, operating cost, depreciation rate.	Investment justification
VOLUNTARY LOAD CURTAILMENT	Monetised value of avoided need for voluntary load shedding - required for RIT-D	Input only - no calcs	Investment justification/ Planning & reporting

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