



31 January 2023

# Attachment 5.2.b: Investment governance framework

Ausgrid's 2025-29 Regulatory Proposal

Empowering communities for a resilient,  
affordable and net-zero future.



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# 1. Executive summary

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This document provides an overview of Ausgrid's Investment Governance Framework (**IGF**) and network asset lifecycle to support information provided in Attachment 5.01: Proposed Capex and outline the policies, procedures and principles applied in developing our capex forecast for the 2024-29 Regulatory Control Period.

Ausgrid maintains an IGF to provide clear guidance and accountability for the development and approval of investments. The framework applies to all investment funding requests and supports the selection of investments that deliver value for customers and provides the basis for making investment decisions in a transparent, consistent and efficient manner.

The framework aims to promote investment decisions which are:

- **streamlined** – decision pathways are clear and efficient;
- **consistent** – assessment of needs, outcomes and risks are aligned;
- **timely** – information is provided within timeframes suitable for appropriate action;
- **relevant** – appropriate information is submitted to the necessary forum to enable informed decisions; and
- **value enhancing** – selection of investments that deliver value for customers and shareholders.

# 2. Our approach

## 2.1 Governance bodies supporting the IGF

At the organisation level, there are three committees that support the IGF:

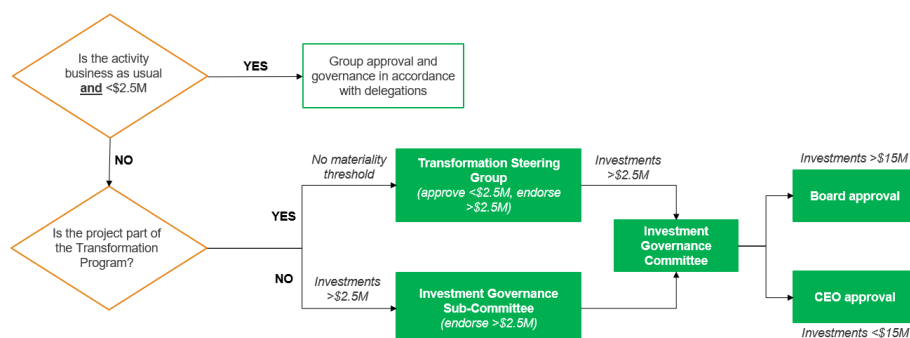
- the Investment Governance Committee (**IGC**);
- the Investment Governance Sub-Committee (**IGSC**); and
- the Transformation Steering Group (**TSG**).

The purpose of the three committees is to oversee and monitor Ausgrid's capital expenditure portfolio to ensure:

- the process for selecting capital projects and programs is consistent with Ausgrid's IGF;
- an appropriate level of due diligence has been undertaken and the expenditure is financially prudent and in line with Ausgrid's regulatory allowances and Business Plan; and
- all reasonable options in prioritising and selecting capital projects and programs have been duly considered. This is achieved through the use of consistent investment evaluation principles.

Investment proposals are prepared and submitted in accordance with the investment governance decision tree set out below:

Figure 1 – Investment governance decision tree



The purpose, duties and responsibilities of the committees are contained in each committee's charter.

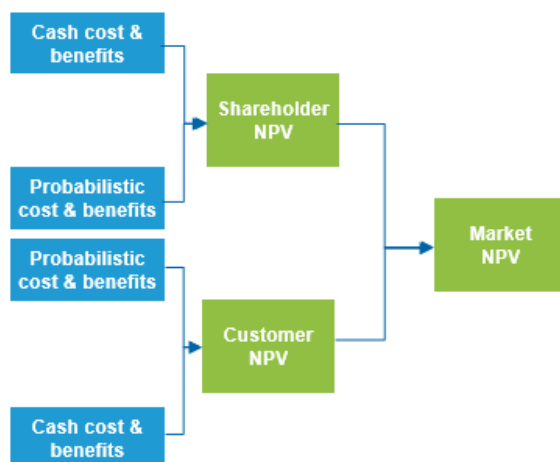
## 2.2 Investment Evaluation Procedure and standardised NPV model

Ausgrid maintains an Investment Evaluation Procedure (**IEP**) to provide guidance on the following three elements of the development, submission, review and approval of investment proposals:

1. **Calculate Net Present Value (NPV)** – includes the calculation of cash and probabilistic (non-cash) costs and benefits to evaluate the impact of an investment from both a customer perspective and a shareholder perspective.
2. **Prepare the business case document** – Ausgrid maintains a standardised business case template which must be used for all investment proposals above \$2.5 million; and
3. **Submission requirements** – certain requirements that must be adhered to when submitting investment proposals to the relevant governance committee.

A key element of Ausgrid's approach to investment evaluation includes the use of a standardised NPV model, which is used to calculate and evaluate the net costs and benefits associated with an investment proposal. This includes identifying and valuing both cash costs and benefits and probabilistic (non-cash) costs and benefits. NPV is calculated from both a customer perspective and a shareholder perspective which, when combined, result in the market (total) NPV for the investment (see Figure 2 below).

Figure 2 – NPV Methodology



### Cash costs and benefits

Cash cost and benefits represent direct cashflows attributable to customers and/or shareholders and are estimated based on the project scope, the investment required and the incremental cash benefits.

The below table sets out the key categories of cash costs and benefits and the associated definition.

Cash cost/benefit category	Definition
<b>Capex cost</b>	Includes direct cost, overheads and contingency. In addition, this category includes cash received from asset disposals (if applicable).
<b>Future capex cost</b>	Capex required after the initial investment (if applicable). Future capex cost should only be included if it directly relates to, or follows on from, the initial investment or requested funds (i.e., subsequent stages to the initial investment). Re-investments (i.e., replacement of an asset at the end of its useful life) should not be included.
<b>Regulated revenue / Distribution Use of System (DUOS)</b>	Represents return on capital (weighted average cost of capital ( <b>WACC</b> ) x capex), return of capital (depreciation on capex), Alternative Control Services ( <b>ACS</b> ) revenue and terminal value (if applicable).
<b>Incentive schemes</b>	Includes Service Target Performance Incentive Scheme ( <b>STPIS</b> ), Efficiency Benefit Sharing Scheme ( <b>EBSS</b> ), Capital Expenditure Sharing Scheme ( <b>CESS</b> ) and Demand Management Innovation Allowance ( <b>DMIA</b> ) related to the investment. The NPV model calculates EBSS and CESS impacts based on cash costs and benefits input into the model.
<b>Unregulated revenue (shared assets)</b>	Unregulated or shared asset revenue related to the investment. Shared asset revenue is split between the portion retained by Ausgrid (90%) and the portion returned to customers (10%) in accordance with the shared asset guideline.
<b>Opex costs and benefits</b>	The incremental change in opex costs and/or benefits resulting from the investment (not the absolute opex associated with the investment).

## Probabilistic costs and benefits

Probabilistic costs and benefits are included in the NPV calculation based on the estimated likelihood of an event occurring in the future, and the estimated financial impact of that event.

Probabilistic costs and benefits should only be included in the model for the useful life of the associated asset. In addition, probabilistic costs and benefits should be quantified as the incremental change as a result of the investment (not the absolute cost or benefit associated with the investment).

The below table sets out the key categories of probabilistic costs and benefits and the associated definition.

Probabilistic cost / benefit category	Definition
<b>Safety / fire / environmental</b>	Probability of an incident occurring (%) x consequence (\$) based on severity which is classified as insignificant to severe.
<b>Network asset failure expected unserved energy (EUE) risk</b>	Value of unserved energy calculated using the value of customer reliability (VCR) (\$/MWh) x probability of an event resulting in a network failure (%).
<b>Third party property damage</b>	Cost of average third party damage (\$) x probability of an event resulting in third party damage.
<b>Reactive replacement</b>	Planned replacement cost (\$) x probability of an event resulting in replacement cost (%).
<b>Construction EUE risk</b>	Number of potential outages during construction x average outage duration (hrs) x average load lost (MW) x VCR (\$/MWh).
<b>Carbon emission</b>	Mass of CO <sub>2</sub> equivalent emissions x cost per tonne of CO <sub>2</sub> (\$).
<b>Protective security</b>	Includes estimate of: cost to respond to crisis (\$); cost of loss of productive time (\$); fines and penalties (\$); damage/theft of asset cost (\$); costs associated with loss of data due to cyber-attack (\$).
<b>ICT / OT hardware or software failure</b>	Includes estimate of: value of supply loss (\$); cost of manual intervention (\$); loss of productive time (\$); value of safety cost (\$).
<b>Employee engagement</b>	Includes estimate of: value of improved productivity (\$); reduction in recruitment costs (\$) due to lower employee turnover.
<b>Customer value</b>	Includes estimate of: value of customer time for information requests (\$); value of customer time for issues (\$).

## 2.3 Post Implementation Reviews (PIRs)

The primary purpose of the PIR process is to assess if a project achieved the planned objectives and to provide insight into the efficiency and effectiveness of the planning, development and delivery of the project. Furthermore, lessons learnt and associated improvement opportunities are identified to be applied to future projects.

Ausgrid's PIR process includes two distinct stages as outlined below.

### 2.3.1 Stage 1 – Select project for PIR

A PIR selection paper is prepared each quarter by the secretary of the IGC and presented to the IGC for selection of a project to undertake a PIR. A two-step process has been developed to facilitate the identification, shortlisting, and selection of projects suitable for PIR.

#### Step 1: Develop a full list of projects for potential PIR selection

The full list of projects to be considered for PIR each quarter is extracted from the SAP project module or source approval documents (in Ausgrid's document management system) based on the following criteria:

- **Gate 3 approval greater than \$2.5 million** – This ensures PIR's are performed on projects which meet the financial threshold for IGC endorsement.
- **Project approval within the last five years** – Selecting projects which commenced within the last five years increases the likelihood of identifying improvement opportunities and learnings which are relevant to current projects and governance practices. This reduces the identification of improvement opportunities and learnings which have already been implemented.
- **Practical completion in the last 12 months** – Using practical completion date will capture the vast majority of spend and represents the earliest date for which a PIR can be performed.
- **PIR not previously completed and presented to ELT/IGC/Board** – Where a PIR has been previously completed and presented to the Executive Leadership Team (ELT), IGC or Board, it will be excluded from the initial selection list to avoid duplication.

### **Step 2: Apply selection criteria to rank projects and create a shortlist**

Once the full list of projects has been developed in step 1, selection criteria are applied to rank each project for PIR suitability and create a shortlist of projects for PIR selection. The PIR selection criteria is set out below:

1. Project value;
2. Variance to Gate 3 approved value;
3. Business change impact; and
4. Similarity to future projects.

Each project is evaluated and allocated a score between one and three for each criterion. In addition, scores allocated to 'variance to Gate 3 approved value' receive a multiplier of 1.5x to prioritise the selection of projects which differ from the Gate 3 approval amount. Refer to the next page for details of the PIR selection criteria and associated scoring approach.

The projects are subsequently ranked based on their cumulative score and the projects with the highest cumulative value are shortlisted for PIR selection.

### **2.3.2 Stage 2 – PIR review and presentation to IGC**

The PIR is prepared by an independent reviewer (**the Reviewer**), with the Reviewer selected by the Chairman of the IGSC. It is their role to work with employees and delivery partners to collate and review available documentation and hold interviews where relevant.

The Reviewer will prepare a PIR report and present to the IGC and IGSC for feedback and endorsement. The Reviewer will typically have three months to prepare the report and any findings / actions will be tracked and managed by the IGSC.

The PIR will comprise a single report that includes:

- a brief description of the project and an overview of the strategy and overall objectives of the project;
- an assessment of the extent to which the project has delivered the required outcomes relative to the original needs identification;
- an assessment of project expenditure against the approved budget and associated contingency; and
- identification of lessons learnt and proposed improvement actions.

Criteria	Description	Rationale	Low (score = 1)	Medium (score = 2)	High (score = 3)	Score multiplier
<b>Project value</b>	Gate 3 approved value or actual spend (whatever is greater)	Projects with a higher value are prioritised over smaller projects	\$2.5 to \$7.5 million	\$7.5 to \$15 million	+\$15 million	1x
<b>Variance to Gate 3 approved value</b>	The percentage variance to the Gate 3 approved value (including contingency)	Projects with a greater variance to the Gate 3 approval are prioritised. This relates to both positive and negative variances to ensure focus on accurate forecasting	0%-10%	10%-25%	+25%	2x for overspend 1x for underspend
<b>Business change impact</b>	The impact the project has had on people, processes and/or technology	Projects with a bigger change impact on the business are prioritised over BAU projects given the greater risk associated with sustaining business changes and benefits. This element is assessed by the project subject matter experts in accordance with the scoring approach	No impact	Enhanced existing processes and/or technology. Minimal people impact	Implementation of new processes and/or technology. Moderate to high people impact	1x
<b>Similarity to future projects</b>	The number of similar projects in the Prioritised Investment Plan (PIP) over the next five years	Projects which are similar in nature to other projects in the pipeline over the next five years are prioritised over one-off projects. This is to ensure the relevance of learnings which might come out of the PIR and the ability to apply to future projects. This will balance the scoring applied to the business change impact criteria	0-5 similar projects	5-10 similar projects	>10 similar projects	1x

# 3. Network investment lifecycle

The IGF consists of a number of key stages. These stages are common to network and non-network investments. The key stages relating to the network investment lifecycle are shown in Figure 3 below.

Figure 3 – Network investment lifecycle



## 3.1 Identify need and develop options

While further stages in the network investment lifecycle deal with individual project and program approval, the “Identify Needs and Develop Options” stage is Ausgrid’s portfolio investment process. Long-term (5-10 year) asset plans and strategies are developed by Asset Management to identify the network demand and needs.

Asset Management defines the network investment portfolio based on network needs, develops the Portfolio Investment Plan (**PIP**) for Gate 1 approval, and identifies and assesses delivery risks or constraints to proposed investments that may form part of the network investment portfolio. Although an initial risk assessment is completed for each program / project proposal, the assessment may be overridden in the subsequent prioritisation of the portfolio by management. For example, in the case of programs to reduce risks associated with legacy assets where it may not be economically preferable or physically possible to eliminate a high risk within a five or ten year planning horizon.

Feedback is incorporated and facilitates development of an agreed portfolio that best addresses network investment needs, within the internal and external constraints faced by the business.

## 3.2 Develop project/programs

Once a place in the portfolio has been determined at Gate 1, the next governance step is Gate 2 approval. Gate 2 approval occurs at the pre-design stage of the project/program, based on planning level estimates which are refined as described below. It effectively releases the funding necessary to further refine the project/program for Gate 3 approval.

After Gate 2 approval is achieved, responsibility for the development and approval of the project / program moves to the project / program stage. During this stage, detailed project planning, including cost estimates and relevant approvals in order to achieve final investment approval (Gate 3 approval) is undertaken. Gate 3 approval is primarily testing the efficiency of the delivery model of the project / program and confirming the timing and cash flows.

Reactive work requests received by Ausgrid are assessed based on project priority along with the proposed program funding allocation. If an appropriate program does not exist, program confirmation is required from Asset Management. The addition of the work to the program is assessed by considering scope, costs, system need date and resource capability and capacity. If multiple options exist and / or the scope and costs are not well defined, then a development brief and feasibility report are prepared. Otherwise, a project or work order is created.

Projects identified within program plans derived from the Gate 2 preliminary approval business case, as well as projects identified from reactive work requests, are assessed to verify key project details including constructability, design and estimates prior to final approval.

## 3.3 Execute project/programs

Projects / programs are delivered either internally or by an external delivery partner. Throughout the project / program, works delivery progress is reported, in addition to providing the relevant closure and variation notification.

Ausgrid has a monitoring framework covering all network investments across the project / program lifecycle. In the execution stage, Ausgrid monitors the completion of key investment tasks supporting the baseline

established at Gate 3. The procedure also outlines accountabilities and responsibilities with respect to monitoring and reporting of projects and programs.

Where a project / program is proposed to be altered during execution, it must be confirmed that the project / program still meets the original need after any proposed changes. If project / program delivery and risk outcomes cannot be achieved within existing approval limits, and there are no opportunities available to bring the project back within budgeted direct cost, time or scope while maintaining risk outcome, formal variations are raised to seek change approval.

All variations must be appropriately endorsed prior to approval in accordance with thresholds based on variation amounts and / or revised estimated project / program value. Ausgrid has a change control procedure which provides a framework for the management, monitoring and implementation of changes to the scope, time, cost, or risk of approved network capital projects / programs in the company's investment portfolios during the approval stages of the investment lifecycle as measured against approved baselines.

### 3.4 Evaluate

Once a project / program is executed and closed, evaluation of the project / program is undertaken to determine if investment benefits have been realised. Ausgrid monitors the completion of key investment tasks that support the evaluation and closure of the project / program. These include, where applicable:

- Completion of post implementation reviews;
- Completion of lessons learned;
- Issue of project close out report; and
- Contractual and financial closure.

Completion of a post implementation review is an important step to enable lessons learnt during project planning, development and delivery to be documented and incorporated into nominated future projects (refer to section 2.4.2 above for further details).

### 3.5 Overview of value framework and cost benefit analysis

The Customer Value Framework facilitates quantification of project costs and benefits, including the consequences of investment options for asset replacement programs. The value dimensions considered in the framework are supply, safety, environment, fire, customer experience, property damage, direct financial cost, investment benefit and investment cost. Assessment of avoided risks and financial costs of asset investment options is consistent with the risk management framework and supports quantitative risk assessments by quantifying the value dimensions in dollar terms. Asset performance data and the outputs of the Customer Value Framework can also be used as inputs for cost benefit analysis for development of asset replacement programs.

Cost benefit analysis for projects supports prudent investment in network assets with the objective of providing an affordable, safe, reliable and secure supply to customers. A common set of principles is applied to assess investment options with both cash and probabilistic costs and benefits quantified in monetary terms wherever possible. Where project approval requires endorsement of governance committees, the financial and economic assumptions underpinning the proposed investments are tested together which checking for consistency with financial policies and business plans. Evaluation of investments below the thresholds for committee endorsement, apply the cost benefit analysis principles where practical and provide a level of detail commensurate with materiality and risk associated with the proposed investment option.

Although the option with the highest NPV or the lowest Net Present Cost (**NPC**) is generally preferred over others, other factors may influence the selection of the preferred option such as the urgency of the identified need/business risk influencing the speed of implementation. In cases where the preferred option is justified because of factors other than cost, the trade-offs are clearly identified, assessed and documented.

## 4. Further reading

Document	Description	Relevant sections
<b>Investment Governance Framework</b>	Ausgrid maintains an Investment Governance Framework ( <b>IGF</b> ) to provide clear guidance and accountability for the development and approval of investments.	Section 2.1
<b>Investment Evaluation Procedure</b>	<p>Ausgrid maintains an Investment Evaluation Procedure to provide guidance on the following three key elements of the development, submission, review and approval of investment proposals:</p> <ol style="list-style-type: none"> <li>1. Calculate Net Present Value (<b>NPV</b>);</li> <li>2. Prepare the business case document; and</li> <li>3. Submission requirements.</li> </ol>	Section 2.3
<b>IGC, IGSC and TSG charters</b>	Charters for the three committees formed to oversee and monitor Ausgrid's capital expenditure portfolio.	Section 2.2
<b>Network Investment Governance Asset Planning Procedure</b>  <b>Customer Value Framework</b>  <b>Principles of Cost Benefit Analysis</b>	<p>The Network Investment Governance Asset Planning Procedure outlines the activities and outputs in identifying needs and developing options for electricity network investments.</p> <p>The Customer Value Framework facilitates quantification of project costs and benefits.</p> <p>The Principles of Cost Benefit Analysis guide the assessment of investment options.</p>	Section 3

# 5. Document governance

Who	Name	Title	Date reviewed/approved
Drafted by:	Jacob Muscat	Head of Commercial Finance and Control	28/10/2022
	Matthew Webb	Head of Asset Investment	
Reviewed by:	Jacob Muscat	Acting Chief Financial Officer	8/12/2022
	Junayd Hollis	EGM, Asset Management	
Approved by:	Investment Governance Committee	Investment Governance Committee	15/12/2022