

Company Procedure

FINANCIAL MANAGEMENT	Document No	: CEC0002.32
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CECP0002.32 INVESTMENT EVALUATION

1.0 PURPOSE

To outline the process for preparing and reviewing financial evaluations on investment options so that these evaluations are conducted in a streamlined and consistent manner.

2.0 SCOPE

This procedure applies to both Network (system) and Non-System investments. The financial evaluation techniques described in this document apply to the selection and endorsement processes for programs and projects submitted to NSW Investment Steering Committee (ISC), Network Steering Committee (NSC) and Non-System Steering Committee (NSSC). The principles in this procedure should also be applied to other investment levels where practical.

Economic evaluation required to be conducted for augmentation projects under the AER Regulatory Investment Test – Distribution is not in the scope of this procedure.

This procedure does not cover post implementation review requirements.

3.0 REFERENCES

Internal

CECP0001.01 - Board Policy (Leadership) – Delegation of Powers and Functions to the Chief Executive Officer and the Power of Attorney

CECP0001.02 - Company Policy (Leadership) – Sub-Delegations of Authority by the Chief Executive Officer

CECP0002 - Board Policy (Governance) – Governance

CECP0002.03 - Board Policy (Governance) – Risk Management

CECP0002.30 - Company Policy (Governance) – Investment Governance Framework

CECP0002.31 Company Procedure (Governance) – Network Investment Governance

CECP0002.33 - Company Procedure (Governance) – Non-System Investment Proposals to NSW Committees

CECP4001.01 - Company Procedure (Governance) – Policy and Procedure Framework (Business Management System): Preparation and Amendments of Documents

External

Electricity Supply Act, 1995 (NSW)

AS Records classification handbook – HB5031 – 2011

ISO 31000:2009 – Risk Management – Principles and Guidelines

NSW Treasury Risk Management Toolkit for the NSW Public Sector (TPP12-03)

4.0 DEFINITIONS

Approve/authorise

To formally give sanction to a decision that may have internal or external consequences. An approver only has the authority for decisions within the scope of this/her normal area of responsibility.

All approvals must comply with company policies on sub-delegation of authority and must be explicitly documented through the online/system approval or otherwise eg email trail or signature and kept accessible to establish an audit trail for future reference.

All approvals must comply with company policies on sub-delegation of authority.

Capital

Any project, system or non-system expenditure which provides service potential or future economic benefit to the company.

CASH (Capital Allocation Selection Hierarchy)

An investment ranking model that assesses and prioritises network projects and programs based on risk.

Document Control

Employees who work with printed copies of documents must check the BMS regularly to monitor version control. Documents are considered “uncontrolled if printed”, as indicated in the footer.

Endorse

To express support for a decision.

Estimated project/program value

Project/program related expenditure that includes the direct capital cost of the project/program, direct operating cost of the project/program, allocated overhead cost, plus contingencies.

Investment Evaluation Unit (IEU)

Manager – Group Investment Evaluation and representatives from the network businesses that conduct financial analysis and review in accordance with this procedure.

Networks NSW Investment Steering Committee (ISC)

A committee that supports the CEO and Board in the evaluation of network investments. It provides increased alignment of programs across the operating companies by applying consistent review criteria. The purpose, duties, membership and responsibilities of the ISC are contained within the committee’s charter.

Net Present Value (NPV) / Net Present Cost (NPC)

The difference between the present value of cash inflows and the present value of cash outflows. It is called NPV when cash inflows are greater or equal to cash outflows, and it is called NPC when cash inflows are smaller than cash outflows.

Network Capital

Capital investment in assets that directly form part of or directly support the company’s transmission network, sub-transmission network or distribution network eg transmission, sub-transmission, distribution substations and feeders; meters; SCADA or the network assets and system-related property holdings.

Network Investment

A capital or operating investment that directly supports the electrical network.

Networks NSW (NNSW)

Should be construed as a reference to Ausgrid, Endeavour Energy and Essential Energy each acting severally under the Umbrella Cooperation Agreement dated 1 July 2012 to achieve efficiency benefits.

Network Steering Committee (NSC)

A committee that supports the ISC in the evaluation of network investments. It provides increased alignment of programs across the operating companies by applying consistent review criteria. The purpose, duties, membership and responsibilities of the NSC are contained within the committee's charter.

Non-System Capital

Capital investment in assets that are excluded from Network Capital. They indirectly support the operation of the network. Main categories of non-system capital are: ICT, Property and Fleet.

Non-System Investment

A capital or operating investment that indirectly supports the electricity network.

Non-System Steering Committee (NSSC) (NNSW)

A committee that supports the Investment Steering Committee in the evaluation of non-system investments. It provides increased alignment of programs across the operating companies by applying consistent review criteria.

Operating Expenditure

Expenditure required for the carrying out of works or the supply of goods and services required for the day to day functions of the company.

Program

In the context of a system based program is a collection of projects that are:

- (a) similar with respect to their asset category, delivery and objectives; and
- (b) are independent of each other but share or contribute to a common risk profile.

In the context of a non-system based program is a collection of projects that are:

- (a) highly inter-related in their delivery and objectives, such that each project is dependent upon the other; and / or
- (b) connected in such a way that realisation of the anticipated benefits cannot be achieved without delivery of each of the component projects.

Project

A project is a discrete, non-recurring scope of effort that has explicit objectives and operates via a nominated schedule, budget and resources.

Recordkeeping

Making and maintaining complete, accurate and reliable evidence of business transactions in the form of recorded information (Source: AS Records classification handbook – HB5031 – 2011).

Review date

The review date displayed in the header of the document is the future date for review of a document. The default period is three years from the date of approval however a review may be mandated at any time where a need is identified due to changes in legislation, organisational changes, restructures, occurrence of an incident or changes in technology or work practice.

Statement of Corporate Intent (SCI)

A document which outlines objectives, major activities and performance targets for the financial year, consistent with the Government's policy and budgetary requirements.

Weighted Average Cost of Capital (WACC)

A calculation of a firm's cost of capital in which each category of capital is proportionately weighted

Zero-Based Risk Prioritisation

A prioritisation methodology that selects projects based on their criticality and their degree of alignment to the organisation's strategic intent. Risk categories (in order of importance) are: mandatory, risk-based, strategic and business improvement.

5.0 ACTIONS

This procedure is governed by the Investment Steering Committee (ISC), who governs the investment process, reviews and endorses efficient portfolios, programs and projects. The ISC is supported by the Network Steering Committee (NSC) and the Non-System Steering Committee (NSSC), which analyse and review investment proposals for submission to the ISC.

Key areas the NSC and the NSSC consider when evaluating investment proposals are:

- **Objective (Network/Business Risk)** – the network or business needs in question. Can also be considered in terms of the impact on the network or the company if the investment is made or not made.
- **Benefits** – quantitative outcomes, valued in monetary terms wherever possible, as well as non-monetary impacts and qualitative factors.
- **Costs** – monetary considerations that include the initial capital investment and the ongoing operational commitment as well as other quantified and unquantified impacts.
- **Options analysis** – the effectiveness and efficiency of the proposed project at addressing the specific objective identified compared to alternatives including a 'base case do nothing' option.
- **Project Delivery Risk** – is the effect of uncertainty and the unexpected impact on objectives. It considers an event's likelihood of occurrence during project delivery and consequences on the achievements of the project objectives (financial and non-financial). Risk can be reflected in probability analysis.

The following sections outline some of the key considerations to be taken into account when preparing an investment evaluation for submission to the NSC or NSSC:

5.1 Defining an Objective

All appraisals should specify a service delivery objective as a clear, unambiguous, confirmed need which is consistently defined across all the options evaluated. Some common investment objectives are listed below:

5.1.1 Risk Mitigation

The need for an investment can be expressed as a reduction in business risk. In this context, risk is the manifestation of consequences if an investment is not made or an outcome not achieved. The regulated nature of the company's business means that the return on capital for each investment is notionally fixed. However, overall return on investment to the company can be increased by achieving the agreed regulated outcomes through more efficient means. System

investment risk and non-system investment risk are dealt with separately in the CASH prioritisation system and the 'Zero-Based' Risk Prioritisation system. Underlying investment evaluation principles for system and non-system investments are the same even where specific circumstances may differ.

5.1.2 Increasing Net Worth

NSW Treasury also recognises that an investment can also be made by a government business if it increases the net worth of the organisation within its defined service delivery role. It is a treasury requirement that if the objective is to increase net worth, the investment should only be made where the expected rate of return on the assets over the project life exceeds the organisation's cost of capital.

5.1.3 Regulatory Requirement

As a network monopoly business in the NEM, investment needs can be set by the National Electricity Law and NSW Licence Conditions. NSW licence conditions prior to June 2014 specified requirements as both outputs or ends (reliability standards measures) and inputs or means (N-1 planning) to achieve outcomes. Under the revised licence conditions only customer outputs are specified as objectives.

The investment objective must be expressed as an end result, such as maintaining reliability or meeting a safety requirement, rather than a means - such as adding an extra transformer to a zone substation or meeting an internal N-1 planning standard. Wherever possible, service objectives should be given a monetary value. At any review point of option development and analysis, it is essential that the following are reconfirmed:

- the investment need remains; and
- the options meet the stated service level objective.

5.2 Options Analysis

Evidence is to be provided to demonstrate an adequate number of options, including non-network solutions for Network Investments, have been considered.

General guidance in respect of the development and selection of options is provided below:

5.2.1 Developing Options

A credible and reasonably exhaustive list of options should be considered. In determining the number of options and the level of analysis that is appropriate, the following factors should be considered:

- the level of uncertainty in relation to the project (i.e. project cost and delivery risk);
- the scale, type and reason for the project (including uncertainty around need); and
- the expected costs of developing alternatives.

As a general guide, investments that fall under the scope of this document need to have at least three options considered, one of which being the 'Do Nothing' option. The base case or 'Do Nothing' option means '*what happens if the status quo is maintained*'. It does not necessarily mean 'spending nothing', e.g. upgrading a facility to meet any fire safety standards, where the base case in effect becomes the 'minimum essential expenditure option'.

Analysis periods for each option should be comparable. Generally speaking, the end of the assessment periods for all options should be aligned. In cases where asset lives are different, replacement value for shorter life assets need to be considered or residual values calculated for longer life assets. A key determinant of the length of analysis period is the specific objective being addressed and long asset lives under some options need not necessarily dictate long analysis periods.

Financial analysis of options should follow Section 5.3 and 0 of this guideline.

Each option must be considered from both technical feasibility and financial feasibility perspectives, and all options under consideration need to comply with relevant regulatory and industry standards. Any departures need to be documented and justified.

5.2.2 *Selecting Options*

The option with the highest NPV or the lowest NPC is generally preferred over others, however 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. Similarly, at times, a particular standard may be applicable, which could lead to a more expensive option being selected. For example, adverse natural environment surrounding the asset may require the use of a more expensive but more robust material. In addition, material differences in project delivery risk may be a factor in selecting a preferred option.

Therefore, cost, timing and quality of asset all need to be considered in deciding the optimal option. In cases where the preferred option is justified on the basis of factors other than cost, the trade-offs needs to be clearly stated in the proposal.

It is also possible that the economic test conducted under the Regulatory Investment Test Distribution (RIT-D) and other unquantifiable factors (such as regulation impact, network performance, and workplace or environment risk) may prevent the highest NPV or the lowest NPC option from being chosen. Under these circumstances, the constraint and selection justification must be clearly stated.

5.3 **Measuring and Discounting Cash Flows**

Capturing relevant items for inclusion in the quantitative analysis is fundamental in calculating reliable NPV/NPC for investment options. As important is the consistency in the assumptions used, measurement and reporting.

Where practical, it is preferable that cash flows included in a financial evaluation be:

- in nominal dollars escalated using assumptions provided by the NSW Treasury for SCI purposes;
- presented on a post-tax basis;
- in absolute or relative to business as usual (BAU) terms (not incremental or relative to alternative terms); and
- excluding GST.

In all cases, the financial assumptions and parameters used must be consistent with the basis upon which the cashflows are presented in the analysis.

The following sections examine the inclusions and exclusions when measuring cash flows. Where alternative approaches are taken a description of the reasons and implications should be supplied with the analysis.

5.3.1 Inclusions

Incorporate the following items, where applicable, into the cash flow calculations:

- Capital cost – the amount of capital invested in the project that can be reliably measured and gives rise to future economic benefits. The following items should also be included in investment cost, unless they are deemed to be sunk cost:
 - planning and development cost that can be specifically attributed to the project;
 - land acquisition & easement acquisition; and
 - cost of complying with laws, regulations and applicable administrative requirements in relation to the construction of the option.
- Decommissioning costs and proceeds from disposal – where applicable, the cost of decommissioning assets and make good costs should be included in the NPV/NPC analysis. Likewise, proceeds from the disposal of such assets should also be included.
- Project operating cost – operating expenditure incurred in the delivery of the project.
- On-going operating cost – incremental operating costs to the existing operations as a result of the proposed investment. Examples include:
 - asset maintenance;
 - lease payments; and
 - training and implementation costs.
- On-going operating benefit – incremental operating benefits to the existing operations as a result of the proposed investment. Examples include:
 - additional revenue;
 - reduction in costs compared to BAU costs currently incurred;
 - reduction in costs compared to a base case as described in section 0
 - quantifiable reduction in business risk; and
 - quantifiable improved productivity.

5.3.2 Exclusions

- Sunk cost – an evaluation considers future expenditure only. Past costs should be included in reporting of total project cost for the purposes of determining governance processes, application of sub-delegations of authority, benchmarking and post implementation reviews, but not in a decision making process between future options. Past costs and benefits cannot be affected by current decisions so past or sunk costs are irrelevant from an NPV analysis point of view and should be excluded.
- Non-cash cost – non-cash items are irrelevant to an NPV/NPC analysis, therefore accounting costs such as depreciation are excluded from the cash flow. Note that in a post-tax analysis the tax impact of non-cash items such as depreciation needs to be considered.
- Avoided cost – avoided cost is a relative cost when comparing one investment option against alternatives (except the base case). When comparing options, the true cost of the projects should be used, not their relative cost to each other. Therefore, avoided costs between alternatives other than the base case should not be included in the NPV/NPC calculations.
- Overhead cost – for the purpose of investment evaluation, overhead costs are similar to sunk costs, which cannot be influenced by the choice of investment, and therefore should be

excluded from the NPV analysis. Note however, excluding overheads from NPV analysis does not preclude inclusion for the purposes of Investment Governance processes and sub-delegations.

- Contingency cost – contingency is designed to cover the cost associated with the materialisation of unforeseen and unavoidable project risks. Although contingency cost is included in the total authorisation sought, it is not part of the base case NPV/NPC calculations. Contingency provides an indication of potential costs associated with project delivery risk which is evaluated separately within this framework.

5.3.3 Discount Rate

The discount rate used in investment analysis is a measure of the time value of money to the decision maker (reflecting the opportunity cost of capital) at the time a decision is made. Different WACC rates are calculated for different purposes and at different times.

A regulatory WACC is calculated by the AER for setting regulated revenues for electricity network businesses. This may be similar to but is not necessarily the same as the discount rate the company believes reflects its opportunity cost of capital (e.g. the WACC for NSW State Owned Enterprises as presented in the SCI).

Importantly, the assumptions on deflators, escalators and treatment of cash flows must be consistent with the discount rate being used. The purpose and nature of the decision being made is the driver for the appropriate discount rate. Standardised NNSW assumptions including WACC will be determined annually by Group Finance, and provided to the Investment Evaluation Unit to be used in analysis. Parameters and assumptions not provided by NNSW are to be derived using reasonable assumptions and methodologies appropriate to the investment under consideration. Premiums are to be applied to the regulated WACC for non-regulated activities, determined through an assessment of risk on a case by case basis.

In general, shifts in the discount rate should not affect the choice of the preferred option unless there are significant differences in the timing and structure of cash flows between options, in which case, this should be reflected in sensitivity analysis (see Section 5.4.1).

5.4 Options Appraisal

The ranking and the selection of options can be influenced by a combination of other considerations and assumptions.

5.4.1 Sensitivity Analysis

Project related risks play a pivotal role in determining if an investment will be effective or efficient at addressing the identified needs. Factors that may cause major delays (e.g. easement negotiations, complex approvals) or cost blowouts can change the outlook of the project dramatically.

Sensitivity analysis plays an important role in providing objectivity and independence in option evaluation, by looking at the nature of these risks, the level of risk, and the business' risk tolerance.

Nature of risk under different options is a key part of the decision making process. The project with the highest risk weighted NPV or NPC may not be preferred if the variability of risk is greater eg larger risk of worst case outcome.

Level of risk is the magnitude of a risk or combining of risks, expressed as the combination of consequences and their likelihoods. Estimation of likelihood is therefore as influential on decision making as estimating consequence.

Risk tolerance is an organisations or stakeholder's readiness to bear residual risk (the risk remaining after processes to mitigate risk) to achieve the objectives.

Sensitivity analysis should include:

- description of major risks and key assumptions (reflective of the Project Risk Schedule if available);
- description of their potential impact on the project (timing, budget & scope); and
- calculation of the variation in NPV/NPC against these risks.

Calculation of "switch points" – the values of assumptions for which a decision would switch between options can assist decision making and provide a check on the validity of analysis. For example, a replacement investment may be preferred over maintenance where the risk of an outage from the existing assets is greater than 1 in 200 – the "switch point" – and judgement and further analysis, if possible, is used to assess if this is a reasonable assumption.

Qualitative factors without precise NPV values can also be important in making appropriate business considerations – and if so should be stated together with NPV or NPC estimates.

The mechanical application of sensitivity analysis as a "tick box" exercise or default calculation is to be avoided. The purpose is to improve the quality of decision making and assess how robust the results are to change and risk and in doing so identify areas where the result may be sensitive to assumptions.

5.5 Evaluation Review

It is the responsibility of the manager submitting an investment evaluation to certify that the analysis has been appropriately conducted and reviewed. At a minimum, all submissions to the NSC, NSSC and ISC require independent review within the company prior to obtaining COO endorsement.

In particular, the Investment Evaluation Unit (IEU) supports the NSC, NSSC and the ISC by focussing on the financial analysis, net present value and discounted cash flow analysis, testing the financial and economic assumptions underpinning the investment plans, and checking whether they are consistent with financial policies and existing plans per the AER determination and SCI program. Evaluations accompanying requests for project/program approval paper should be submitted to the relevant IEU representative to provide sufficient time for review before the paper is presented at the NSC, NSSC and ISC where required.

The NSC, NSSC and ISC may request additional analysis.

Evaluation of investments below the thresholds for submission to NNSW Committees, where practical, should apply the principles in this procedure, providing a level of detail commensurate with materiality and risk associated with the project/program.

All evaluations are subject to selective independent reviews by Group Finance and Audit.

6.0 RECORDKEEPING

The table below identifies the types of records relating to the process, their storage location and retention period.

Type of Record	Storage Location	Retention Period*
Nil		

* The following retention periods are subject to change eg if the records are required for legal matters or legislative changes. Before disposal, retention periods should be checked and authorised by the Records Manager.

7.0 AUTHORITIES AND RESPONSIBILITIES

Chief Executive Officer has the authority and responsibility for approving this procedure.

Managers have the authority and responsibility for:

- preparing financial evaluations on investment options in accordance with this procedure and other applicable company policies and procedures;
- appointing the person(s) carrying out the investment evaluation;
- administering the consistent application of this procedure in the process of making investment recommendations; and
- providing appropriate document repository for the analysis undertaken that justifies the investment recommendation.

General Manager Finance & Compliance has the authority and responsibility for:

- administering the consistent application of this procedure in the evaluation review process; and
- nominating resources to form the Investment Evaluation Unit.

Investment Evaluation Unit has the authority and responsibility for:

- establishing, implementing and maintaining this procedure;
- monitoring the application of this procedure;
- reviewing evaluations that meet the required threshold; and
- reporting the findings of reviews to the relevant governance bodies.

Employees, contractors and consultants have the authority and responsibility for complying with the requirements of this procedure.

8.0 DOCUMENT CONTROL

Content Coordinator : Capital Governance Manager

Distribution Coordinator : GRC Process Coordinator