



Investment Approvals Process

Purpose of the Investment Approvals Process

1. The Investment Approvals Process (IAP) is the decision – making framework for preparing investment proposals to meet Transpower’s plans for its grid. It is a robust, replicable, and transparent process to produce high quality investment proposals for approval by the Commerce Commission or a Customer (usually the Designated Transmission Customer). It is also adaptable to the range of investment situations that arise - large and small value proposals with many or few options. Transpower’s Board and stakeholders can be confident that the investment and delivery decisions are driven by verified need and are efficient, appropriate and defensible.

IAP Framework

2. The Framework consists of five stages with generic actions occurring through each, outlined following. Specific actions may be required depending on the scope of the investment and the funding for it e.g. proposals that require individual Regulator approval must comply with rules for consultation and methodology for economic analysis.

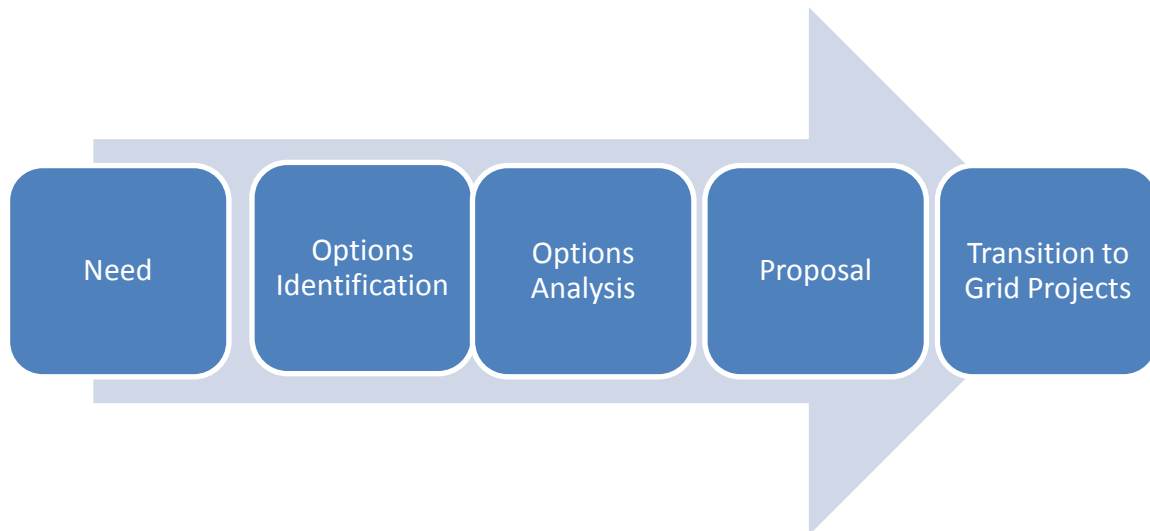
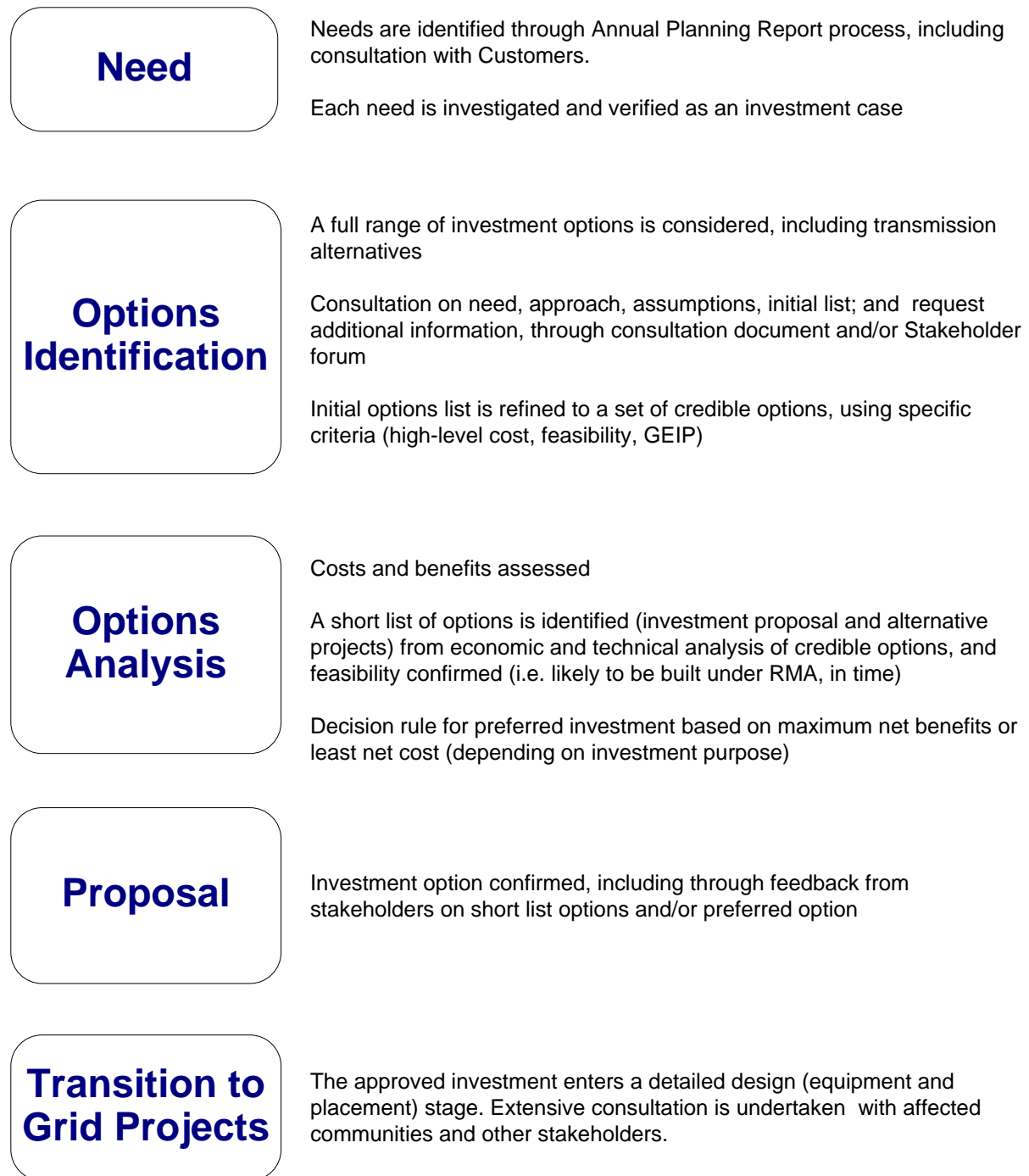


FIGURE 1 - OUTLINE OF IAP STAGES



Inputs to the investment approvals process

- 3. Grid Development Strategy** Transpower takes a longer-term strategic view to ensure the selection of appropriate transmission investment options. A planning approach that focuses on the relatively short term (given transmission assets with a potential lifetime of 70 years) would likely result in a different development path for the National Grid over time, than one focusing on the long term. Shorter-term planning tends to favour incremental investment and can miss benefits associated with longer-term investments. Similarly, to avoid building a National Grid that is regionally optimal, but nationally sub-optimal, Transpower considers a national approach when developing regional plans. Transpower's planning engineers use power system modeling software

to determine development strategies, and to test the effects that any changes would have on power system capability and operation.

4. **Planning assumptions** are required to identify needs and to guide the analysis of possible and preferred options. Transpower's planning assumptions include demand forecasts and generation scenarios and meeting the Grid Reliability Standards (GRS). Demand forecasts and generation scenarios are augmented by information obtained from Transpower's lines, industry and generation customers.

All planning is in accordance with Good Electricity Industry Practice (GEIP) principles. GEIP requires an electricity grid owner to act in a reasonable and prudent manner when managing its network, consistent with other electricity grid owners under comparable conditions, taking into account the size and age of the network; and other associated safety and environmental factors under New Zealand law.

More detailed, up-to-date and project-specific assumptions are added at later stages as required.

IAP stages

Need

1. The possible need for investment should be signalled in the current **Annual Planning Report** (produced annually every March by Planning and Development). Transpower undertakes extensive engagement with its Customers to create information about future demand and generation for regions and the country as a whole, which sets the context for identifying need. Further analysis is undertaken at the start of the IAP to confirm the case for investment.

Options Identification

2. The purpose is to explore a full range of options ('long list') to meet the need. Transpower is obliged to show consideration of these options even if there to be no proponent for e.g. demand management or generation. Long list creation is a platform for enabling innovation and discussion around the latest technologies and methods for grid development and operation, although not all options are expected to be technically feasible or economic.
3. There are four broad groups of options:
 1. Options that are *transmission alternatives* e.g. demand management (voluntary load shedding), additional generation, run back on generation (involuntary) / SPS on load (involuntary load shedding) energy efficiency measures, fuel switching;
 2. Options that utilise existing assets e.g. thermal upgrade, reconductor, shunt capacitors, reactive compensation, bussing, operating the asset on 15min overload;
 3. Options that create new assets e.g. new transformers, lines, pylons, reactive power devices
 4. Options that dismantle assets.

4. For smaller projects a long list may not be required specifically if the need / problem clearly requires a particular transmission solution, such as interconnecting transformer capacity upgrades.
5. **Stakeholder engagement** All engagement will be planned for and coordinated in accordance with a stakeholder engagement strategy. Following identification of options, plans for stakeholder engagement - Customers, landowners, councils, Regulator, broader project communications - can be enacted. The Regulator and TP should discuss and agree on an indicative submission date.
6. **Consultation one** A document with description of need (case for investment), approach to investigation, the long list of options, and a request for information (RFI). The RFI is to canvass external stakeholders' views on options to resolve the issue / meet the need. Consultation may jointly occur through a stakeholder forum and by email. For smaller projects, consultation may not be required at this stage.
7. **Credible options list** The long-list is reduced to a credible options list by applying specific criteria (such as extent to which need is met, whether the option is GEIP¹, indicative cost). A credible option is one that
 - Addresses the identified need
 - Is commercially and technically feasible
 - Can be implemented in sufficient time to meet the need
8. A credible option may also include a decision rule or policy for actions taken in the future.
9. The list of credible options may be published for information only, although any response from stakeholders may be considered.

Options Analysis

10. For investments greater than \$5M for the purpose of increasing service level (capacity, voltage support) the methodology for the economic analysis is governed by as regulated Grid Investment Test (GIT). An investment proposal for investment must satisfy the GIT:
 1. For core grid reliability investments, the analysis needs to determine the option that meets the need at least net market cost
 2. For non-core grid reliability investments, the analysis needs to determine the option that maximises net market benefits
 3. For economic investments, same as 2
11. For investments not subject to the GIT, Transpower makes its decision based on the same principles i.e. the decision rule is the option that maximises net benefits or minimises net costs. A

¹ Good Electricity Industry Practice defined in the Code

broader range of benefits (compared with the GIT) may be considered and qualitatively assessed to assist the final decision.

Proposal

12. **Consultation 2: short list options and/or investment proposal** The decision to undertake a second round of consultation is made case-by-case depending on the value and scope of the investment being proposed – possibly ranging from stakeholder fora and consultation documents emailed out to all relevant parties, down to a consultation document being hosted on Grid NZ and alerting parties by email to submit. Broader engagement may be undertaken with landowners and the community on the works being contemplated.

Transition to Grid Projects

13. **Business Case – Delivery Approval** The approved investment enters a detailed design (equipment and placement) stage. Extensive consultation is undertaken with affected communities and other stakeholders.