

Grid Upgrade Investment and Review Policy

Prepared by Electricity Commission
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Executive Summary

1.1 Context

1.1.1 Transmission services play an essential role in the delivery of energy. As energy demand grows and the existing grid ages, it follows that investment in transmission services will be needed. Transmission may also be required to enable new generation including that using renewables. To meet the need for transmission services:

- (a) Transpower New Zealand Limited (**Transpower**) undertakes the detailed planning role (including the assessment of both transmission and non transmission alternatives) and prepares grid upgrade plans; and
- (b) the Electricity Commission (**Commission**) reviews and approves grid upgrade plans that meet the criteria set out in the Electricity Governance Rules 2003 (**Rules**) and rejects applications that fail them.

1.1.2 If the Commission approves an investment in a grid upgrade plan, Transpower can recover the cost of that investment from designated transmission customers in accordance with the Transmission Pricing Methodology.

1.1.3 Section III of part F of the Rules¹ regulates Transpower and the Commission in undertaking these roles by:

- (a) facilitating Transpower's ability to develop and implement long term plans (including timely securing of land access and resource consents) for investment in the grid;
- (b) setting out the criteria that investment proposals are required to meet to gain approval; and
- (c) defining the process that the Commission must follow in assessing investment proposals.

1.1.4 The process for developing and reviewing proposed transmission investments should, wherever possible, reflect the process associated with comparable infrastructure investment decisions. This reflects good regulatory practice and ensures that investments are justified in terms of need, reliability and economic efficiency, and are able to be implemented.

¹ Unless otherwise stated, all references to the Rules are to section III of part F.

1.2 Purpose of this document

- 1.2.1 The purpose of this Commission policy document is to promote an effective process for the preparation of investment proposals by Transpower, as part of Transpower's wider grid planning process, and the review and approval or rejection of those proposals by the Commission. It provides a framework within which the Commission and Transpower will interact during the process and provides guidance to interested parties in relation to how Transpower and the Commission will interact with them.
- 1.2.2 Both the Commission and Transpower intend that their interactions will involve the free and frank exchange of views between personnel of the Commission and Transpower, while preserving the clear understanding that the Commission may not bind itself in any way that prejudices the formal processes that it is required to undertake under the Rules, or its ability to approach its decision-making on investment proposals with an open mind and having regard to the results of the consultations it undertakes.
- 1.2.3 In practical terms, the Grid Upgrade Investment and Review Policy (**GUIRP**) set out in this document is intended to:
- (a) provide details on how the Commission and Transpower will undertake their roles as set out under the legislative framework (and particularly under section III of part F of the Rules);
 - (b) establish a clear, consistent, and efficient policy for the application of the Rules in relation to:
 - (i) the grid planning cycle;
 - (ii) Transpower's development of investment proposals; and
 - (iii) the Commission's review of investment proposals;
 - (c) assist Transpower in harmonising its transmission planning and development of investment proposals with the requirements of the Rules;
 - (d) support timely and effective discussions between Transpower, the Commission, and interested parties as to the requirements of a particular investment proposal;
 - (e) better enable Transpower to prepare proposals for grid investment that meet the need, are technically, economically, environmentally and commercially practical and that can be efficiently reviewed by the Commission in a timely manner;
 - (f) reflect that the Commission and Transpower have consultation obligations under the Rules, and ensure that interested parties are able to contribute

effectively to Transpower's and the Commission's decision-making processes; and

- (g) better enable the Commission, Transpower and interested parties to allocate resources involved in preparing and considering proposals and submissions by ensuring input from relevant parties is obtained at the appropriate stage of the process.

1.2.4 Accordingly the GUIRP is intended to facilitate the efficient development of technically, economically, environmentally, and commercially practical investment proposals that meet the need for investment and the requirements of the Rules.

1.3 Structure of this policy document

1.3.1 The structure of the GUIRP is as follows:

- (a) **GUIRP principles** (Chapter 2) – sets out the principles that have been applied in developing the GUIRP;
- (b) **GUIRP overview** (Chapter 3) – briefly presents the different elements of the GUIRP;
- (c) **The grid planning cycle** (Chapter 4) – discusses the linkages between the GUIRP and existing requirements;
- (d) **The development and review process** (Chapters 5 to 9) – provides detail of the process for the development and review of investment proposals;
- (e) **Common issues for each stage of the DRP** (Chapter 10) – sets out the approach with respect to common issues for each stage of the GUIRP; and
- (f) **Ensuring the integrity of the approval process** (Chapter 11) – addresses the issue of ensuring the integrity of the approval process and relates to reporting and monitoring by Transpower on its delivery of an investment.

Glossary of abbreviations and terms

3G analysis	Analysis of GEIP in meeting the GRS and the GIT
Act	Electricity Act 1992
APR	Annual Planning Report
Commission	Electricity Commission
DRP	Development and Review Process
GEIP	Good electricity industry practice
GEIR	Grid Economic Investment Report
GIT	Grid Investment Test
GPAs	Grid Planning Assumptions
GPS	Government Policy Statement on Electricity Governance
GRR	Grid Reliability Report
GRS	Grid Reliability Standards
GSC	Grid Support Contract
GUIRP	Grid Upgrade and Investment Review Policy
GUP	Grid Upgrade Plan
RFI	Request for information
Rules	Electricity Governance Rules 2003
SOO	Statement of Opportunities
Transpower	Transpower New Zealand Limited

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2. GUIRP principles

2.1.1 The Rules, the GPS, and the Commission's principal objective and specific outcomes (as set out in section 172N of the Electricity Act 1992 (the **Act**)) have all been considered during the development of the GUIRP. Having regard to those matters, the following describes the key principles of the GUIRP:

- (a) **Compliance with the law**—The GUIRP must comply with all relevant legislation and be consistent with administrative law requirements. The Commission will review the GUIRP as necessary to ensure it complies with changes to any relevant legislation.
- (b) **Transparency**—The GUIRP should ensure that the investment planning, development, and review processes are as transparent as possible, including Transpower and the Commission reporting their progress. Transparency will help ensure that the Commission's expectations are known, and that the roles and accountabilities of both the Commission and Transpower are clearly set out.
- (c) **Predictability**—The GUIRP should improve predictability by:
 - (i) establishing in advance standard processes and timelines that signal the need for interested parties' input;
 - (ii) facilitating work planning for the Commission and Transpower; and
 - (iii) clearly signalling the expectations of the Commission, both at high and detailed levels (e.g. project assumptions).
- (d) **Efficiency**—The GUIRP should promote efficiency in terms of:
 - (i) the resources used to develop and review investment proposals by clearly setting expectations and requirements for investment proposals;
 - (ii) the appropriateness of investment proposals by establishing expectations, parameters, and assumptions for modelling of investments.
- (e) **Timeliness**—The GUIRP should ensure that the process for developing and reviewing investments balances:
 - (i) the need to comprehensively investigate, develop and document investments, engage interested parties, and undertake appropriate review and audit of investment proposals; with

- (ii) the nature² of the project and the use of scarce resources at the Commission, Transpower, and interested parties.
- (f) **Generally applicable**—The GUIRP is intended to be applicable to all foreseeable investment proposals that will be considered under section III of part F of the Rules. This should ensure that the policy is adhered to and can be integrated into the standard practices of the Commission, Transpower, and other interested parties.
- (g) **Commensurate level of analysis**—The GUIRP should allow the application of a number of different analytical methods focused on the specific requirements of certain types of projects (e.g. line versus a sub-station and small versus medium etc) that comply with the Rules. Transpower will develop for the Commission’s consideration a recommendation regarding commensurate analyses.
- (h) **Flexibility**—It is accepted that the GUIRP may need to be amended over time. In addition, if, in respect of a particular investment proposal, it becomes apparent that an alternative process is more appropriate, Transpower and the Commission should be able to consider that alternative process (provided the alternative process complies with the Rules). If an alternative process is followed, the Commission and Transpower will clearly communicate to interested parties what the alternative process is, and will review the GUIRP to consider whether it could be amended to incorporate the alternative process.
- (i) **Role Clarity**—The GUIRP must be consistent with, and promote, the roles of Transpower as the grid planner and the Commission’s role in reviewing investment proposals and approving those investments that meet the criteria in the Rules.
- (j) **Inclusion of new information**—The GUIRP should ensure that, as new information arises, it is considered in an appropriate and consistent manner.

² The nature of an investment proposal will, for example, include its type, size, complexity and cost, and the incorporation of non-transmission options using Transpower’s Grid Support Contract (GSC) workstream

3. Overview of the GUIRP

3.1.1 The GUIRP is presented in three sections:

- (a) The grid planning cycle;
- (b) The development and review process (**DRP**); and
- (c) Making the **DRP** work.

3.1.2 Section (a) is included in the GUIRP only to the extent that it is required under the Rules and to, as far as possible, integrate GUIRP processes with existing Transpower processes.

3.1.3 The GUIRP focuses on sections (b) and (c) above, which reflects the Commission's role in reviewing investment proposals in a GUP, and approving proposals that meet the criteria set out in the Rules or rejecting proposals that fail them.

3.2 The development and review process

3.2.1 This section provides a brief summary of the **DRP**. The **DRP** is described in more detail in Chapters 5 to 9. Chapter 10 discusses some common issues for each stage of the **DRP**.

3.2.2 The **DRP** consists of five stages that cover the point at which a project is taken from the grid planning cycle through to a final decision by the Commission.

3.2.3 It is important to note that the **DRP** captures the fundamental stages that the Commission and Transpower intend to carry out. The actual application of the **DRP** will depend on the nature of the particular investment proposal.

3.2.4 The timing and progression of stages will also vary. This variability means that, depending on the nature of an investment proposal or experience dealing with similar proposals:

- (a) several stages may be undertaken concurrently; and
- (b) the length of time for the completion of a particular stage may vary significantly with the complexity of the project.

3.2.5 Where the **DRP** indicates that Transpower and the Commission should agree on a particular aspect of the process for developing and reviewing an investment proposal, but agreement cannot be reached (see also section 10.2):

- (a) Transpower will determine the process for all stages except the Commission review process. Transpower is bound by obligations under administrative law as well as the Rules in determining the process for these stages; and

- (b) the Commission will determine the most appropriate review and decision-making process for the investment proposal. The Commission is bound by its administrative law obligations and the Rules in determining the process for this stage.

3.3 Economic and reliability investments

3.3.1 There are two possible “types” of investment proposals allowed for under the Rules. These are defined as follows in part A of the Rules:

- (a) “reliability investments” means investments by Transpower in the grid, or alternative arrangements by Transpower, the primary effect of which is, or would be, to reduce expected unserved energy; and
- (b) “economic investments” means investments in the grid that can be justified on the basis of the grid investment test (**GIT**) and are not reliability investments.

3.3.2 The DRP allows for the different process requirements and decision-making criteria for economic and reliability investments, but endeavours to make processes as similar as possible. Briefly, these differences are:

- (a) for reliability investments, Transpower will run workshops (see paragraph 9.2.2) at the stage of establishing a short list of options and associated modelled projects (but will not consult on a preferred option). After Transpower submits its preferred investment proposal as part of a grid upgrade plan (**GUP**), the Commission will, in accordance with rule 13.3.2, provide an opportunity for designated transmission customers to comment on Transpower’s proposal and to suggest alternatives to the proposal. The Commission may also consult with affected parties in accordance with rule 13.3.5; and
- (b) for economic investments, Transpower will consult on its application of the GIT and a preferred option in accordance with rule 14.2.4 (but will not consult when it reaches a short list of options and associated modelled projects). The Commission will not consult on economic investments when submitted, unless it considers it necessary to do so.

3.3.3 Therefore, the DRP balances the need for a consistent process that is easily understood and applied and the need for differing processes to reflect the different nature and rule requirements for economic and reliability investment proposals.

4. Grid planning cycle

4.1 Introduction

4.1.1 The purpose of the grid planning cycle is to:

- (a) identify instances where investment in transmission assets may be necessary or appropriate;
- (b) identify possible transmission investments; and
- (c) provide industry participants, and other interested parties, with an indication of where there may be opportunities for them to invest in generation assets, or other non-transmission alternatives including demand-side options.

4.1.2 Within the grid planning cycle, the Commission's role is to signal opportunities for investment by providing information to interested parties. Transpower's role is to consider the signalled opportunities (and any other opportunities it identifies), identify transmission needs and options to meet these needs, and provide forward looking information to interested parties. This will also signal opportunities for new investments by other participants.

4.1.3 There are three key processes in meeting the above purpose, being:

- (a) the publication of the Statement of Opportunities (**SOO**), including the Grid Planning Assumptions (**GPAs**);
- (b) the publication of information relating to new investment contracts and the Comprehensive Plan for Asset Management and Operation of the grid; and
- (c) the publication of the Grid Reliability Report (**GRR**) and Grid Economic Investment Report (**GEIR**)³, which Transpower incorporates in the publication of its Annual Planning Report (**APR**). Although the Commission notes that the GRR and GEIR only have to be published when a new SOO is published, Transpower has indicated that it intends to update these annually as part of its APR.

4.1.4 The GUIRP utilises the grid planning cycle in that the most recently published SOO and APR form the starting point for many assumptions for developing investment proposals.

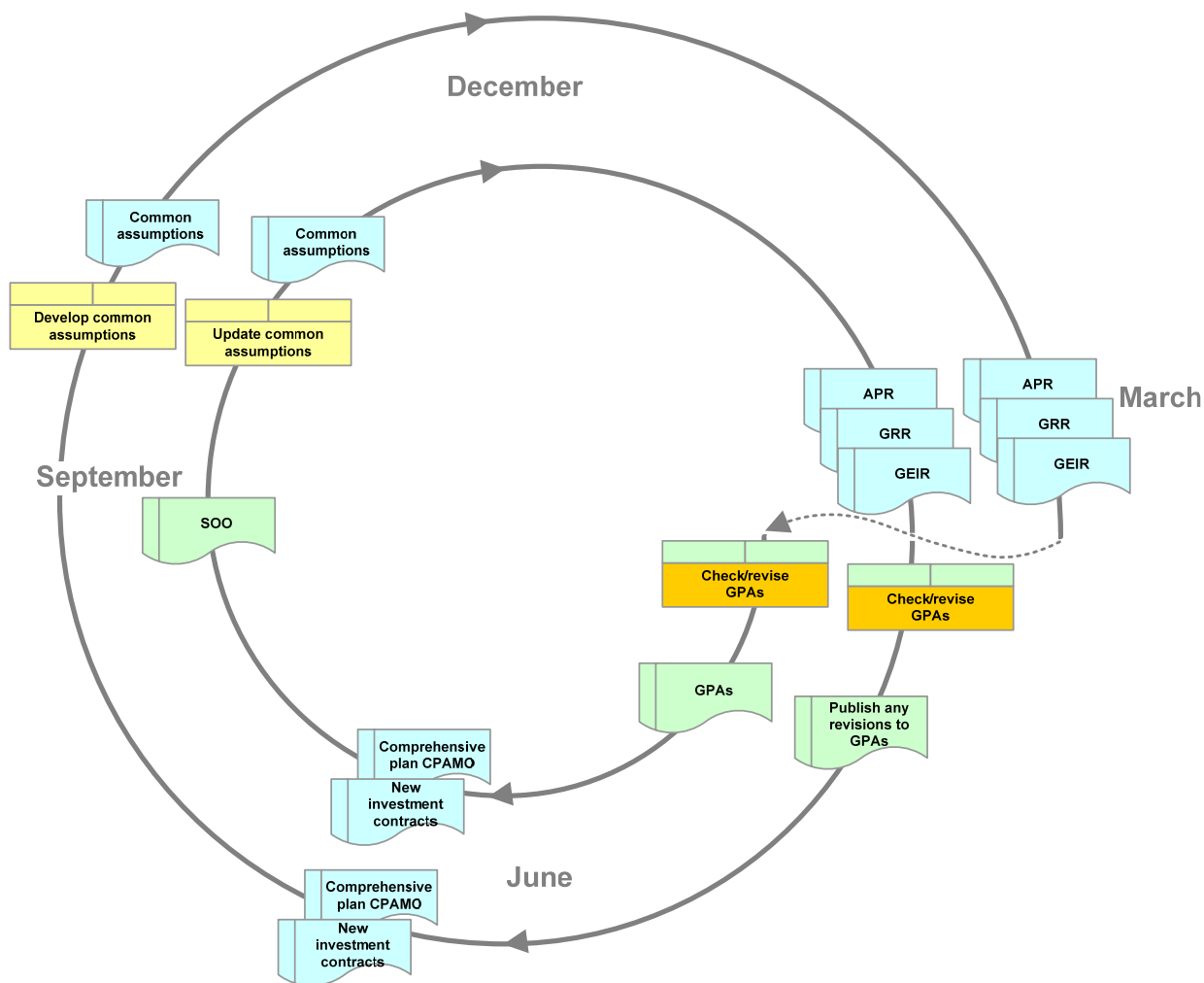
4.1.5 To facilitate the use of the grid planning cycle and its integration with the DRP, a biennial cycle has been established that clarifies the relationship and delivery of

³ Transpower is required to publish a Grid Economic Investment Report (GEIR) as part of the Interconnection Rules, effective from 1 April 2008. The GEIR is required to set out "whether there are economic investments that [Transpower] considers could be made in respect of interconnection assets". Transpower published its first GEIR in the 2008 APR (published on 31 March 2008).

the three elements above. The biennial cycle also coordinates a new piece of work by Transpower (the Common Assumptions - explained below in section 4.4) with the existing grid planning cycle.

4.1.6 This cycle is shown below in Figure 1.

Figure 1: Grid planning cycle



4.2 The SOO

4.2.1 Paragraph 86 of the GPS published in October 2006 sets out the Government's expectation that the Commission publish a SOO every two years. To maintain the 2-year cycle, the Commission intends to publish the SOO on the first working day of October. Publication at that time allows Transpower six months to publish the GRR and GEIR, and publish an APR containing them by 31 March each year. The six month period aligns with Transpower's obligations under the Rules in relation to publishing the GRR and GEIR.

4.2.2 However, it is possible that new information may come to light in the period after a SOO is published that may mean that it will be necessary for the Commission to consider, as provided for in clause 6.1 of the GIT, whether scenarios other than the scenarios set out in the SOO are more appropriate for the purposes of applying the GIT to a particular investment proposal. In addition some proposals may require higher resolution or more detailed scenarios than those provided in the SOO. Transpower, a proponent of a transmission alternative, or the Commission may put forward such alternative scenarios.

4.3 Annual Planning Report

4.3.1 Transpower intends to use the APR to set out the GRR and GEIR as required by the Rules. Transpower also intends that the APR will supplement those publications with a more detailed, comprehensive and forward looking plan, including transmission needs, why the particular project meets the need, indicative timings and possible future grid investments.

4.3.2 In addition to this, Transpower will produce a Projects Calendar (explained below in paragraph 5.3.7) and a Small Projects Report (explained below in paragraph 5.3.10), which Transpower intends to publish in or with the APR.

4.4 Common Assumptions

4.4.1 The Common Assumptions are those assumptions that Transpower considers will be the same for all investment proposals, or all investment proposals of a similar nature. These assumptions will be developed, revised and discussed with the Commission, independently of any investment proposals, to facilitate the efficient development of investment proposals.

4.4.2 It is likely that the Common Assumptions will have a strong modelling and technical focus. For example, the following may be included in the Common Assumptions:

- (a) **detailed assumptions** for grid planning (e.g. GXP power factors);
- (b) **cost building blocks** to be used for standardised costing for grid planning purposes (e.g. standard design for modelled projects – explained in paragraphs 5.6.6 to 5.6.7 and appendix 1 - Cost Building Blocks (Information Required To Assess Capital Expenditure Requirements) below);
- (c) **analytical methods** for the analysis of options (e.g. approach to static, dynamic and transient stability analysis); and
- (d) **approach to modelled projects** (e.g. process to ensure modelled projects fully utilise thermal capacity of different options).

- 4.4.3 Transpower will prepare the Common Assumptions. Transpower will seek input from the Commission to reach a common understanding in developing the Common Assumptions, and prior to publishing them.
- 4.4.4 Interested parties can consider Common Assumptions posted on Transpower's and the Commission's websites and discuss their views with both the Commission and Transpower. In addition, interested parties will be able to make submissions on project assumptions (which will include the relevant Common Assumptions) as part of the preparatory stage described in paragraph 6.1 and/or the consultation processes required by rule 13 or rule 14 (as the case may be).
- 4.4.5 The GIT itself includes a number of default assumptions for particular inputs into the GIT analysis. These default assumptions relate to:
- (a) the market development scenarios that must be used (clause 6);
 - (b) the value of unserved energy (clauses 8.3.4 and 8.4.3) and sensitivities for the value of unserved energy (clause 17.5);
 - (c) the discount rate for all present value calculations (clause 14); and
 - (d) the minimum period over which costs and market benefits must be determined (clauses 23 and 27).
- 4.4.6 These default assumptions will be included in the Common Assumptions.
- 4.4.7 The default assumptions can be altered in some circumstances, and for a particular project it may be appropriate for Transpower to adopt assumptions that are different from those specified in the GIT. Specific project assumptions are discussed in section 5.

4.5 Preparation of a Grid Upgrade Plan

- 4.5.1 Transpower will prepare each GUP in accordance with the most recently published comprehensive plan for asset management and operation of the grid and information on new investment contracts (required under rules 12.3.1 and 12.3.2 respectively).

5. Preparatory work

5.1 Introduction

5.1.1 The need for investment proposals will usually be identified in the APR.

5.1.2 The steps in the preparatory work stage for a possible investment proposal are:

- (a) Transpower, following discussion with the Commission, will establish the need for the investment proposal;
- (b) Transpower and the Commission will appoint project managers;
- (c) Transpower and the Commission will develop the process and timeline that will be followed in developing, reviewing, and making a decision on the investment proposal; and
- (d) Transpower will:
 - (i) establish the necessary assumptions for developing investment proposals with input from the Commission;
 - (ii) discuss with the Commission how it will apply the Common Assumptions.

5.1.3 In relation to paragraph 5.1.2(c), the process and timeline agreed will be indicative only. The Commission and Transpower are required to agree (or in the absence of agreement, the Commission may stipulate) a timetable for consultation and approval of an investment proposal (rules 13.2 and 14.2). This rule requirement will be usually carried out prior to Transpower's submission of an investment proposal for approval (see section 8.2).

5.2 Establishing need for an investment

5.2.1 Transpower's APR, specifically the GRR (for reliability investments) and the GEIR (for economic investments), will set out the initial assessment of need. This assessment of need will be refined by Transpower during the preparatory work stage. For example, additional technical analysis may be needed to support the need (e.g. detailed voltage stability analysis particular to an investment proposal).

5.2.2 The Commission will review and provide comments on Transpower's assessment of the need for the investment.

5.3 Project size

- 5.3.1 Investment proposals will vary significantly in terms of size. Investment proposals submitted as part of a GUP to date have ranged from \$5.7 million to \$764 million. To accommodate the various sizes of investment proposals, it is intended that the GUIRP will:
- (a) apply to a bundle of small projects, to enable those projects to be progressed together according to a biennial cycle that utilises existing processes; and
 - (b) apply to a bundle of medium sized projects as appropriate (e.g. by type or regionally).
- 5.3.2 Reflecting the different process requirements set out in the rules for economic and reliability investments, bundles will comprise only reliability or only economic investments.
- 5.3.3 Large projects will follow the DRP as individual projects and will not be required to follow an annual/biennial cycle.

Categorising investments by size

- 5.3.4 Investment proposals will be categorised according to the expected capital expenditure, with the flexibility to change the categorisation if complexity or the level of stakeholder interest makes it appropriate to do so.
- 5.3.5 The following three categories are suggested as guidelines for categorising investment proposals based on capital expenditure:
- (a) Small investments – less than \$10 million capital expenditure;
 - (b) Medium investments – more than \$10 million but less than \$100 million in capital expenditure; and
 - (c) Large investments – more than \$100 million in capital expenditure.
- 5.3.6 Transpower will determine the category a project falls into taking into account the above guidelines and the complexity, level of interest in the project and input from the Commission.

Projects Calendar

- 5.3.7 Transpower will include the categorisation of investment proposals in the APR in the form of a 'Projects Calendar'. The Projects Calendar will capture all investments that Transpower considers likely to be investigated and developed into proposals over the following five years, and will include:

- (a) a brief project description;
- (b) a cost estimate⁴;
- (c) an expected categorisation (i.e. small, medium or large);
- (d) an expected type (e.g. reliability or economic);
- (e) if appropriate, an indication of which projects may be bundled together; and
- (f) an expected date when the project may be included in a GUP (by year for long-term projects; by quarter for projects over the next two years).

5.3.8 In developing the Projects Calendar, Transpower will seek input from Commission in relation to the information set out above.

5.3.9 In compiling the Projects Calendar, as well as need date and likely project timeline, Transpower will also take into account transmission customers' concerns, the availability of its own resources, as well as those of the Commission and other interested parties. Transpower intends to provide in its APR (referred to in paragraph 4.1.3 above) an explanation of its selection of projects for the Projects Calendar.

Small investments

5.3.10 For small investment proposals, an annual process that bundles all small investments and utilises the APR process is proposed (see below). These investments would still be individual proposals, but efficiencies would be gained through developing these projects in batches and through bundled consultation.

5.3.11 The timing of the GUIRP process for small investments would be pre-set on an annual cycle.

5.3.12 For small economic investments, consultations would be initiated at the same time as Transpower publishes its APR using a parallel document (tentatively called the Small Project Report) if necessary. Transpower could also initiate discussions on small reliability investments. Whether a particular small project enters the GUIRP process will be at Transpower's discretion.

Medium investments

5.3.13 Medium investment proposals may also be bundled to create efficiencies in the use of Transpower and Commission resources, and stakeholder consultation. Those investment proposals are expected to be bundled by region, but other bundling (e.g. by type) may also be appropriate. Transpower would propose the bundling of medium investment proposals in the Projects Calendar.

⁴ The Commission preference is for a central estimate with a defined accuracy band.

- 5.3.14 Other than in the bundling of similar investments, it is proposed that medium investment proposals will be progressed through the GUIRP in the same manner as large investment proposals.

Large investments

- 5.3.15 It is proposed that large investments will be dealt with on an individual basis and will not be submitted on a particular annual cycle (although the expected submission date and other key milestones would be indicated in the Projects Calendar). However, it may be appropriate to include multiple elements in an investment proposal where a common economic case is relied on.

5.4 Project managers

- 5.4.1 The Commission and Transpower will appoint project managers for each investment proposal.

- 5.4.2 The project managers will be the first point of contact for communication between the Commission and Transpower, and will manage the implementation of, and, if necessary, variation to, the DRP set out in the GUIRP.

5.5 Establishing an indicative timeline

- 5.5.1 Transpower and the Commission will consider how to apply the GUIRP to a particular investment proposal. Applying the GUIRP should include, for example, indicative views on:

- (a) the timeframes for the different DRP stages (which will include, for example, an approximate time for the submission of a completed investment proposal to the Commission);
- (b) co-ordination of Transpower's RMA processes, based on likely cost and project delivery uncertainties (see section 7.5); and
- (c) length of consultation.

- 5.5.2 Indicative views on these issues will be reviewed and confirmed/amended during the 'Selection of Preferred Option' stage (see section 8).

- 5.5.3 Transpower and the Commission will also prepare an indicative timeline for the development and review of an investment proposal, having regard to the framework set out in the GUIRP. The indicative timeline will include an 'indicative minimum timeline' that sets out the most compressed timeline that is feasible. Indicative minimum processing timelines will include some basic assumptions regarding project complexity and comprehensiveness of the GUP.

- 5.5.4 The following factors will be taken into account when developing the proposed timeline:
- (a) whether the investment proposal is categorised as a small, medium or large project;
 - (b) the Projects Calendar;
 - (c) other investment proposals being developed or reviewed;
 - (d) the meeting schedules of the respective boards of Transpower and the Commission;
 - (e) the Christmas/New Year break; and
 - (f) the extent of industry consultation processes relevant to the particular investment proposal.
- 5.5.5 If the Commission and Transpower consider that there is a more appropriate way of applying the DRP set out in the GUIRP (in accordance with the principle set out in section 2.1.1(h)) for a particular investment proposal, the Commission and Transpower will:
- (a) notify interested parties that (subject to the requirements of the Rules) the Commission and Transpower intend to follow a process other than the process set out in the GUIRP;
 - (b) explain the proposed alternative process and the reasoning for the departure from the DRP set out in the GUIRP;
 - (c) consider whether the GUIRP should be amended to incorporate the proposed alternative process; and
- 5.5.6 Transpower and the Commission will report on progress within the GUIRP (i.e., up to final Commission approval or rejection) relative to the agreed timeline: Transpower before the proposal is submitted as part of a GUP, and the Commission from the date on which the proposal is submitted to a final decision (in accordance with the principle set out in section 5.5.6).

5.6 Project assumptions

- 5.6.1 Project assumptions are those assumptions that are specific to the investment proposal (e.g. demand forecasts for relevant GXPs)
- 5.6.2 The project assumptions will be developed by Transpower, in consultation with the Commission.

Applying the Common Assumptions and project assumptions

- 5.6.3 For each investment proposal, Transpower will consider whether the Common Assumptions are appropriate for the investment proposal. While the Common Assumptions will in most cases be the same for all investment proposals, there may be investment proposals that require a departure from the Common Assumptions. In those cases, Transpower will adopt project specific assumptions.
- 5.6.4 Transpower will outline how the Common Assumptions and project assumptions (if any), will be applied to each investment proposal.
- 5.6.5 Transpower will seek input from the Commission on the appropriateness and application of the Common Assumptions and project assumptions for each investment proposal.

Cost building blocks process

- 5.6.6 The cost building blocks process is the method by which Transpower develops and presents cost estimates. The process is to assist Transpower in conducting economic analysis and the Commission in reviewing the capital costs component of Transpower's 3G analysis.
- 5.6.7 The process for facilitating cost reviews by the Commission (and its consultants) is set out in Appendix 1.

Applying the market development scenarios

- 5.6.8 The GIT requires Transpower to use the market development scenarios set out in the SOO unless the Commission agrees that other market development scenarios are more appropriate (clause 6.1).
- 5.6.9 If Transpower considers that, for example, a different demand scenario would be more appropriate, Transpower will raise this with the Commission and explain why the different demand scenario should be adopted.

5.7 Approval of preliminary expenditure

- 5.7.1 For large infrastructure investments such as transmission investments, prudent expenditure on preliminary work may enable a more comprehensive, reliable, and robust proposal to which the GIT may be applied.

- 5.7.2 The Commission notes that Transpower is disincentivised from undertaking in depth analysis prior to submitting an investment proposal for approval because, if Transpower has already incurred such costs, it faces a risk that the investment proposal to which the expenditure relates will not be approved by the Commission, and that therefore Transpower cannot be certain that it will be able to recover the expenditure from its customers.
- 5.7.3 The Commission considers that expenditure on preliminary work necessary for the evaluation of an investment proposal (to allow recovery from transmission customers) may be desirable in certain cases.
- 5.7.4 Therefore, during the preparatory work stage of the GUIRP, the Commission and Transpower will endeavour to identify possible preliminary work that may facilitate the development of an appropriately robust investment proposal.
- 5.7.5 If prudent preliminary work is identified during the preparatory stage, Transpower has the option of applying for approval of the preliminary expenditure as a standalone investment proposal contained in a GUP, before Transpower incurs preparatory expenditure.
- 5.7.6 If Transpower applies for approval of preliminary expenditure as a standalone investment proposal, the Commission will consider the investment proposal in accordance with rule 13 or rule 14 (as the case may be).

6. Long listing

6.1 Feedback on preparatory work

- 6.1.1 Transpower will publish the preparatory work for feedback from interested parties.
- 6.1.2 The consultation period will be a minimum of three weeks, but may be longer if the Commission and Transpower consider an extended consultation period is appropriate. The consultation period would be set out in the project timeline, discussed in paragraphs 5.5.1 to 5.5.5 above.
- 6.1.3 Further details on the consultation process, such as the treatment of confidential information and publication of submissions, are set out in section 10.3.
- 6.1.4 Based on the feedback received in submissions, Transpower, with input from the Commission, will reconsider the preparatory work and present any amendments to the Commission for comment.
- 6.1.5 The final preparatory work will then be published by Transpower.

6.2 Request for information on options

- 6.2.1 In addition to consulting on the preparatory work, Transpower will issue a request for information (**RFI**) on possible options for meeting the need identified in paragraphs 5.2.1 to 5.2.2 above. Interested parties will have a minimum of three weeks to respond to the RFI. In the case of small projects, the Small Project Report will constitute the RFI.
- 6.2.2 This RFI will assist Transpower in developing a list of possible options for it to consider, which will be used in the development of a long list of options. Transpower may choose to publish an indicative long list of options for inclusion in the consultation paper to assist interested parties.
- 6.2.3 Any potentially viable non-transmission options arising from the RFI process may also feed into Transpower's grid support contract workstream which will facilitate the consideration of non-transmission options in the development of investment proposals.

6.3 Consideration and refinement of options

- 6.3.1 With the information obtained through the RFI, Transpower will refine all possible options into a long list of options. The long list will typically include transmission, generation and demand-side options⁵.
- 6.3.2 To refine the list of all possible options to a long list of options, Transpower may, for example, consider whether an option:
- (a) will meet the need identified in the preparatory stage;
 - (b) can be implemented in time to meet the need;
 - (c) meets the requirements of the Rules;
 - (d) meets the requirements of grid support contracts;
 - (e) will clearly be more expensive than another option with similar or greater benefits; and
 - (f) meets minimum technical requirements.
- 6.3.3 Transpower will only investigate options that it considers are likely to meet the requirements of the RMA. The RMA requires consideration of environmental, social, economic and cultural trade-offs. At this stage Transpower will consider these aspects. In addition, Transpower will consider the benefit of securing any necessary easements.
- 6.3.4 Once completed, Transpower will publish the long list of options, which will include the process and assessment for the refinement of all possible options to the long list of options.
- 6.3.5 While the number of long listed options for a project will vary with the nature and specifics of an investment proposal, developing the long list aims to canvas the broad range of viable options, and the need to balance the consideration of a broad range of options with the resources and time invested in projects that may not be progressed to the short list.
- 6.3.6 If interested parties consider that the long list does not include an option that it should, comments may be made to Transpower when the long list is published.

⁵ It should be noted that many of the options in the long list will be broad in their definition and will not include details such as route identification or a scope of work.

7. Establishing the short list

7.1 Analysis

7.1.1 To refine the long list of options to a short list of options Transpower will undertake qualitative and quantitative analysis of options against three key criteria, referred to as Transpower's high level "3G" analysis, specifically:

- (a) the GRS; and
- (b) compliance with GEIP; and
- (c) the GIT.

7.1.2 In undertaking further analysis of the options, Transpower will have to develop the long listed options. For example, initiating preliminary design work, such as selecting a conductor, may be required to complete the high level 3G analysis.

Criteria for refinement

7.1.3 The nature of the 3G analysis will vary significantly from project to project. However, in assessing the long list of options, Transpower will consider the following criteria:

- (a) **Meeting the need** — Whether, or the extent to which, an option meets the need identified during the preparatory work is an important criterion. It may be necessary to further develop an option during the analysis to:
 - (i) determine if it meets the need; and
 - (ii) identify any additional elements that may be needed to ensure that it meets the need.

This criterion is most relevant to reliability investments and meeting the GRS, but also applies to economic investments as economic benefits will likely be affected by the reliability of an option. The GRS are flexible enough to enable a wide range of transmission and non-transmission alternatives to meet the need.

In addition to this, analysis may be required to ensure that an option is reasonably:

- (i) practicable, that is, for example, some options may provide sufficient capacity, but may not be reliable due to other issues (e.g. system or voltage stability). Similarly, investigation may be required to assess options in terms of any benefits arising from improved system security (e.g. as a result of diversity of supply); and

- (ii) expected to provide a similar benefits in type (but not necessarily the same amount of benefit) as other options.
- (b) **Cost** — If possible, cost estimates will be based on established standard designs and cost building blocks (see paragraphs 5.6.6 to 5.6.7 and appendix 1 (Cost Building Blocks - Information Required To Assess Capital Expenditure Requirements)] to identify any significant differences in cost estimates between options: these can be an important factor in eliminating or confirming the potential feasibility of options.
- (c) **Practicality** — Encompasses two assessments:
 - (i) assessment of options to ensure that they are technology proven and feasible in terms of development, operation and maintenance; and
 - (ii) assessment to ensure that the options are reasonably likely to be able to be designated and consented, and easements acquired, within the timeframe and costs indicated.
- (d) **Availability of a proponent for non-transmission options** — This relates to a reasonable expectation that the identified non-transmission options will have or are likely to have commercial proponents.

7.1.4 Transpower will ensure that the Commission is informed throughout the refinement of the long list of options to ensure that future stages can be progressed quickly and any differing views can be taken into account to avoid undertaking unnecessary work. If appropriate, the Commission will provide feedback on Transpower's work.

Staging

7.1.5 To refine the long list of options to the short list of options, Transpower will have to develop the options. While undertaking the 3G analysis, Transpower will consider the extent to which a long listed option can be staged.

7.1.6 Staging of investments means that Transpower may apply for approval of only part of a larger investment option. For example, a proposal for the acquisition of designations, consents and easements for, but not for procurement and construction of the proposed investment option. The remainder of the option would be treated as a modelled project.

7.1.7 Such staging may allow Transpower to secure options for investment, maintain the option to defer expenditure on the construction of an option, and defer some design decisions.

Short list of options

- 7.1.8 The result of the analysis will be a short list of options that will be further developed and analysed to select a preferred option. The short listed options, and associated analysis, will then be included in the investment proposal submitted to the Commission.
- 7.1.9 While the short list of options will be variable in terms of the number of projects, it is envisaged that the short list will contain generally four or fewer options for meeting the need identified above. This balances the significant amount of work undertaken in developing short listed options for the application of the GIT and the need to consider a number of alternatives.
- 7.2 Establish modelled projects for short list of options
- 7.2.1 Market development scenarios are required to include modelled projects (clause 7.3).
- 7.2.2 Modelled projects are set out in the SOO and reflect a set of investments (including transmission and generation investment projects) that the Commission considers are likely to occur. The modelled projects do not become part of a short listed option, but rather reflect investments that are reasonably likely to occur if the option is implemented (clause 29.2 of the GIT).
- 7.2.3 For each of the short listed options, it will be appropriate to include additional modelled projects that, for example, ensure that an option meets the GRS over the analysis period⁶.
- 7.2.4 Modelled projects will have indicative need dates associated (although these need dates may be determined more dynamically in the GIT analysis).
- 7.2.5 As with the short listing of options, Transpower will ensure that the Commission is informed throughout the development of modelled projects for short listed options. This will ensure that future stages can be progressed quickly and any differing views can be taken into account.
- 7.2.6 If the commissioning date of a modelled project is within two years of the commissioning date of an option, the Commission's view is generally that Transpower should treat that modelled project as part of an option (and would be included in an investment proposal for that option). If the commissioning date of a modelled project is not within two years of the commissioning date of an option, it should generally be treated as a modelled project for that option. Assumptions about modelled projects may be made during the preparatory stage.

⁶ For the avoidance of doubt, changes to modelled projects can include the removal from, as well as addition to, projects in the MDS.

7.3 Confirm short list options and associated modelled projects

7.3.1 Following the development of the short list of options and associated modelled projects, Transpower will seek feedback from the Commission regarding the short list and modelled projects.

7.3.2 Following this feedback, and any actions arising from the feedback (e.g. clarifications, discussions and consideration of suggested amendments by Transpower), Transpower will publish the set of short listed options and associated modelled projects.

7.4 Choice of models

7.4.1 The selection of models for the analysis, including the GIT, is at Transpower's discretion. However, it is the Commission's expectation that any model selected will be open to sufficient scrutiny to enable interested parties to substantially replicate the model's results by applying the same assumptions. In this respect, it would be desirable, for the purpose of validating the GIT analysis, for the model's algorithms, software code and data files to be published.

7.4.2 At issue is balancing of the following principles:

- (a) the use of best practice grid planning and economic analyses, which in some cases will be proprietary models of third parties or models developed by a third party that follows good software development processes. The need for best practice analyses is particularly important for models that are critical to the assessment of options and the development of investment proposals; and
- (b) the selection of transparent and repeatable models that facilitate the Commission's and interested parties' review of investment proposals, and the independent verification and audit of investment proposals.

7.4.3 Transpower will select the models it uses to analyse investment options (based on the specifications set out in the Common Assumptions and preparatory work). However, Transpower's choice of models is constrained by and takes into account the effect on:

- (a) the Commission's ability to review Transpower's analysis in a timely manner; and
- (b) interested parties' ability to provide input on Transpower's analysis.

7.4.4 If a model selected by Transpower is unable to be validated to check that the results produced by the model are robust, the Commission and interested parties may not be able to rely on the results produced by the model.

- 7.4.5 In turn, this may mean that the Commission prefers to rely on the results of its own modelling. This could mean that the Commission is less likely to agree that, for a reliability investment, the proposal satisfies the GIT or, for an economic investment, that Transpower has applied the GIT reasonably, and therefore the criteria for approval of the relevant investment may not be met.
- 7.5 Co-ordination of the development and review and RMA investigation and RMA approval processes
- 7.5.1 For some large new line investment proposals, an important element in the assessment and ranking of options will be any property, environmental and social issues associated with the proposal.
- 7.5.2 The Commission is concerned to reduce uncertainty regarding investment proposals and it considers it would be useful to obtain an early indication of the feasibility and timing of different routes (those matters being directly relevant to the cost/benefit analysis carried out in accordance with the GIT).
- 7.5.3 In this regard, both the Commission and Transpower are seeking to:
- (a) reduce lead times for major transmission investments; and
 - (b) facilitate a robust GIT analysis and fewer instances where actual costs vary significantly from estimated costs because of inaccurate property costs (property costs being a significant component of large line projects).
- 7.5.4 Therefore, the Commission considers that at times there may be a number of benefits from Transpower engaging early with landowners and affected communities in order to seek property rights and/or resource consents for short listed major projects involving new lines or line augmentations (investments affecting multiple landowners).
- 7.5.5 However, the Commission considers that it is undesirable to set a default position for the level of detail required in an investment proposal in respect of the feasibility of a proposed transmission line route and associated property costs. Accordingly:.
- (a) for each project, the approach will be determined by Transpower, in consultation with the Commission, taking into account the materiality of the uncertainties faced; and
 - (b) the RMA investigation (from need identification to lodging a notice of requirements (NOR), including Transpower's internal Area-Corridor-Routes-Easement (ACRE) process) and the RMA approval process (from lodging of NOR to obtaining designations and/or consents) are Transpower's responsibility to manage.

- 7.5.6 The appropriate approach to co-ordinating the RMA investigation and RMA approval processes and GUIRP process is particular to individual projects. Transpower will discuss and seek input from the Commission on the considerations related to RMA investigation and RMA approval co-ordination during the preparatory work stage of the GUIRP process.
- 7.5.7 Reflecting that the materiality of the uncertainty faced for each project will be different, there is a range of approaches to coordinating the GUIRP with Transpower's RMA investigation and RMA approval processes, from the 'sequential approach' to the 'RMA coordination approach' described below:⁷
- (a) **Sequential approach** — This approach may be more appropriate for projects for a low level of uncertainty regarding project costs, timing and feasibility. Under this approach, the proposal is submitted for Commission approval once an indicative costing corridor has been identified for each short-listed line option. A Desktop Area-Corridor (AC) process is undertaken for use in Transpower's 3G analyses of the short listed options. The consultation by Transpower on the 3G analyses, submission of a GUP and processing of the GUP by the Commission will be completed independently of the balance of the RMA investigation. The Desktop AC process is a high-level desktop analysis in which designs (e.g. where to underground) and corridor options (e.g. type of land traversed) are identified to determine:
 - (i) any major environmental, property or physical constraints to the projects, and;
 - (ii) "costing corridors" for the purpose of establishing cost envelopes to use in the 3G analysis of all options.
 - (b) **RMA co-ordination approach** — This approach may be more appropriate for large new line investments. Under this approach, it would be useful if Transpower proceeded along the path of seeking property rights and/or resource consents up to the point where the material uncertainties are addressed. This would be prior to the proposal being submitted for Commission approval. The submission of an investment proposal as part of GUP may be made once Transpower has completed the:
 - (i) Agency AC process; and
 - (ii) Routes-Easements (RE) stage of ACRE process; and
 - (iii) Obtaining property rights and consents.and considered the information gained through this process.

⁷ A range of intermediate approaches are possible and they will be discussed during the interaction described in paragraph 7.5.6.

The Agency AC process involves Transpower undertaking a robust constraints analysis to identify an actual (not indicative) corridor that best balances environmental, social, economic and cultural considerations. This involves communicating with agencies such as DOC and councils to gather information to underpin its constraints analysis. The output of this stage is identification of a preferred corridor (which might be perhaps 5km wide). For some projects, this process may refine corridor choice for the preferred option beyond that achieved in the Desktop AC and hence refine the cost envelope, and will certainly make the corridor selection more robust.

The interested parties engagement process (essentially, the RE stage of Transpower's ACRE process) includes route(s) selection within the preferred corridor, consultation with land owners and affected communities. If the proposal is for a large new line, the consultation may need to be comprehensive.

- 7.5.8 The staging of projects may be included in either of the above processes. The appropriateness of staging a project will be considered throughout the GUIRP process.
- 7.5.9 The terminology of the above RMA co-ordination approach is focused on lines. Point projects such as substations would probably fall into the sequential approach category. However if the RMA co-ordination approach was adopted, the above policies would apply reading "corridor" as "location" (i.e. approximate area) and "routes" as "sites" (i.e. specific grid exit/entry sites).

Circumstances that would support adoption of the RMA co-ordination approach

- 7.5.10 In most cases, the sequential approach will be the appropriate approach as it will provide the level of detail required by the Commission in its review of an investment proposal. However, in certain circumstances, it may be useful to progress the RMA investigation and RMA approval processes to reduce uncertainty around project costs and timing.
- 7.5.11 The RMA and GUIRP process are related in that the RMA investigation and approval process will affect the following aspects of an investment proposal:
- (a) **Project timing** — the RMA process may affect the delivery of an investment proposal as a result of requiring more resources and time than anticipated;
 - (b) **Project feasibility** — the RMA may impact the ultimate feasibility of a project by imposing unforeseen requirements on an investment proposal that may affect its technical feasibility or economics; and

- (c) **Project costs** — the progression of the RMA process will tend to result in more accurate estimates of property costs. Cost accuracy is important in two regards: the ranking of options in order to select a preferred option and the approval of costs for recovery by Transpower.

7.5.12 Greater clarity on all the above points emerges progressively through the RMA investigation and approval processes. The GUIRP process enables Transpower to consider these points while short listing options (see paragraph 7.1.3(c)) and in the development of investment proposals.

Case-by-case approach

7.5.13 The co-ordination of the DRP and RMA investigation and RMA approval processes will be determined on a case-by-case basis. Important considerations are those matters discussed in paragraph 7.5.10,

7.5.14 Transpower and the Commission will agree on an indicative basis, an approach to co-ordinating the relevant processes as part of the preparatory stage, but the approach may be revised if new information arises or an alternative process is adopted (see section 10.4). Therefore, the indicative co-ordination will evolve as an investment proposal is developed.

7.5.15 If Transpower and the Commission cannot agree on how the DRP and the RMA process will be co-ordinated (which is relevant to the cost information Transpower includes in an investment proposal), Transpower will determine the level of co-ordination. However, Transpower acknowledges that uncertainty regarding the possible costs of the RMA process may adversely affect the chance that a particular investment proposal may be approved. This is because the Commission may not agree with Transpower's cost estimates and/or project timelines and may instead rely on its own cost and project timeline estimates.

7.5.16 While considering how to co-ordinate the DRP and RMA investigation and RMA approval processes, Transpower and the Commission will take the following factors into account.

- (a) How will the accuracy of cost estimates change at different stages of the RMA process?

For example, for some projects it will be relatively simple to estimate costs if the topography of the relevant region is flat, and has a known and consistent soil type (so that it is possible to confidently estimate the type of foundation for pylons). For other projects, both the topography and soil type will be very variable making any estimates relatively less accurate.

- (b) the likely difference in expected net market benefits/costs between a preferred option and the other options;
- (c) the impact on project timing (see paragraph 7.5.11(a)), and especially in regard to transmission investment with short lead times (eg wind power); and
- (d) the likely cost of progressing the RMA investigation and RMA approval processes in terms of time, committed resources and impact on affected communities.

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8. Selecting and finalising the preferred option

8.1 Results of Transpower's 3G analysis

8.1.1 Transpower's preferred proposal will be the short listed option that:

- (a) for a reliability investment, the short listed option that satisfies the criteria for approval set out in rule 13.4, specifically, that the investment:
 - (i) reflects GEIP in meeting GRS (rule 13.4.1.1); and
 - (ii) complies with the processes set out in the Rules (rule 13.4.1.2); and
 - (iii) meet the requirements of the GIT (rule 13.4.1.3).
- (b) for an economic investment the short listed option that satisfies the GIT.

8.1.2 A range of sensitivities will also be applied to establish the robustness of the preferred option.

8.2 Agree and publish the process and timetable for Commission approval process

8.2.1 While Transpower undertakes the analysis of short listed options, the Commission will consult with Transpower, regarding a process and timetable for approval of the proposal in accordance with rule 13.2 (reliability investments) or rule 14.2 (economic investments), as the case may be.

8.2.2 The indicative process and timetable established in the preparatory stage (discussed in paragraphs 5.1.2(c) and 5.5) will be used as the starting point.

8.2.3 As provided in the Rules, if the Commission and Transpower cannot agree on a process and timetable for Commission approval, the Commission will stipulate one.

8.2.4 The Commission will publish the process and timetable.

8.3 Transpower consultation and stakeholder engagement

8.3.1 Transpower is developing its stakeholder engagement policy to complement the GUIRP. The stakeholder engagement policy will set out the public engagement outcomes that Transpower seeks at each stage (inform, ask, involve or collaborate).

- 8.3.2 Precisely how these outcomes would be achieved would then be assessed individually for each project (at the establish project stage) to create an appropriate stakeholder engagement plan of precisely who, when and how of the consultation process (i.e. a stakeholder engagement plan for that project).
- 8.3.3 This policy will be applied to both economic and reliability investments, but in a slightly different manner as explained below.

Consultation on economic investments

- 8.3.4 Transpower will consult on its 3G analysis for economic investment proposals and, in particular, whether it has applied the GIT reasonably (as required by rule 14.2.4).
- 8.3.5 The consultation will be at least three weeks, but may be significantly longer for large investment proposals.

Stakeholder engagement on reliability investments

- 8.3.6 Transpower is not required to consult on its 3G analysis for reliability investment proposals. However, Transpower will engage with stakeholders in accordance with the stakeholder engagement plan for that project.

8.4 Bundled consultation

- 8.4.1 Small projects and some medium sized projects will be bundled, as described in section 5.3. A primary purpose of this is to obtain synergies in consultation to avoid inefficient use of Commission, Transpower and interested parties' resources. Bundles will include only economic investments or only reliability investments, reflecting that each type of investment has a different process for approval.
- 8.4.2 Transpower will, following consultation on its 3G analysis for economic investment proposals, publish submissions, and a summary of submissions document if appropriate.

8.5 Confirm or modify investment proposal

- 8.5.1 Following the consultation described above, Transpower will review its analysis taking into account submissions. Transpower will then consider whether it is necessary to revise its analysis of the selected proposal in light of submissions made.

8.5.2 Significant new information may require substantive new work and analysis, which may justify re-consultation on an investment. The process for considering new information is set out in section 10.4.

8.6 Develop and submit investment proposal

8.6.1 Having regard to the consultation carried out in accordance with rule 14.2.4 (and any consultation Transpower may choose to undertake in respect of a reliability investment) Transpower will finalise and submit its investment proposal.

Contents of an investment proposal

8.6.2 An investment proposal will present the preferred option (the proposal) and the other short listed options that are “alternative projects” in terms of clause 19 of the GIT.

8.6.3 Transpower proposes to use the checklist attached below - Figure 2.

Figure 2: Proposed checklist for investment proposals (to be updated to align with Transpower’s internal process)

The fit of the proposed investment to the wider upgrade programme as laid out in other projects, investment proposals and the APR is clearly set out.

The proposed investments and short listed options (the alternative projects):

- are justified against the GIT, and that analysis is consistent with the project assumptions developed under the preparatory stage adjusted as necessary for new information;
- include forecast costs, expressed as expected costs (P50) and cost with contingencies (P90);
- are reasonably likely to be able to be designated and consented, and easements acquired, within timeframe and costs indicated (i.e. are likely to be consentable);
- are appropriately staged (taking into account the selection of modelled projects); and
- comply with the Rules.

The results of supporting consultation are provided as well as any other content as required by the Electricity Commission Board (rule 12.3.4).

9. Commission decision-making process

9.1 Introduction

- 9.1.1 The Commission must determine whether an investment proposal meets the criteria for approval set out in the Rules.
- 9.1.2 The processes for considering a reliability investment and an economic investment are similar except that, in the case of a reliability investment, the Commission is required to undertake consultation, while, in the case of an economic investment, Transpower carries the consultation (as set out in chapter 8).
- 9.1.3 This section of the GUIRP sets out the process that the Commission will follow in reviewing an investment proposal submitted by Transpower.

9.2 Commission consultation on reliability investments

- 9.2.1 Rule 13.3.2 requires the Commission to publish a notice and provide an opportunity for designated transmission customers to provide comments on a reliability investment and to request the Commission to consider its alternatives. Rule 13.3.5 also enables the Commission to undertake such consultation with affected parties as it considers reasonable to assist in its review.
- 9.2.2 Transpower is not required to consult on its 3G analysis for reliability investment proposals. However, Transpower will engage with stakeholders in accordance with the stakeholder engagement plan for that project. To avoid an undue consultation burden on interested parties Transpower may run workshops aimed at explaining the analysis and reasons for selecting the proposed investment. This will enable interested parties to provide input at an early stage of Transpower's development of an investment proposal, while ensuring that the consultation process required by the Rules to be carried out by the Commission is not duplicated.
- 9.2.3 When the Commission is satisfied that the content of the proposed investment is complete in terms of rule 12.3 and any other information the Board considers necessary, the investment proposal will be published on the Commission's website for consultation in accordance with rule 13.3.2 and (if the Commission determines it is appropriate), rule 13.3.5. Written submissions published on the Commission's website.
- 9.2.4 The consultation period will be a minimum of three weeks but may be longer if appropriate.

9.3 Review of investment proposal

- 9.3.1 The Commission is required to determine whether an investment proposal meets the criteria for approval set out in the Rules.

Reliability investments

- 9.3.2 Rule 13.4 provides that, subject to rule 15, the Commission may approve a reliability investment if the Commission is satisfied that the proposed investment:
- (a) reflects GEIP in meeting the GRS (rule 13.4.1.1); and
 - (b) complies with the processes set out in the Rules (rule 13.4.1.2); and
 - (c) meets the requirements of the GIT (rule 13.4.1.3).

Economic investments

- 9.3.3 Rule 14.3 provides that, subject to rule 15, the Commission may approve an economic investment if the Commission is satisfied that Transpower has:
- (a) applied the GIT reasonably; and
 - (b) followed any agreed consultation process.

Process for seeking additional information

- 9.3.4 During the review process, the Commission may request additional information from Transpower.
- 9.3.5 While the Commission will first seek to obtain the information on a co-operative basis, it may also rely on its powers to require information and/or further analysis, as set out in rule 13.3.3 and 14.3.2 for reliability investments and economic investments respectively.
- 9.3.6 For each question included in an information request, the Commission will identify:
- (a) the date an answer is required;
 - (b) the point of contact for clarifications of the question at the Commission; and
 - (c) include comments, as appropriate, on scope, context and relevance of the question.
- 9.3.7 If requested by either party, the Commission will provide Transpower with a briefing session on the questions to ensure a complete understanding of the Commission's question(s).

- 9.3.8 If requested by either party, Transpower will provide Commission staff with a briefing session on the answers to ensure a complete understanding of Transpower's response.
- 9.3.9 Transpower will respond to each question by the specified due date. If this is impractical, Transpower will contact the Commission as soon as practicable to agree an alternate date that meets the Commission's need.
- 9.3.10 Substantive questions from the Commission and associated answers from Transpower will be made available on the Commission's website.

Exercise of discretion

- 9.3.11 Rule 12.1.3 requires, for various parts of the approval process of reliability or economic investment proposals, that, in exercising any discretion under rules 12, 13, 14 and 15, the Board must have regard to:
- (a) the costs imposed on Transpower, designated transmission customers, end use customers, and the Board itself; and
 - (b) the likelihood of benefits to end use customers exceeding regulatory costs.
- 9.3.12 In the case of a reliability investment proposal, rule 13.3.1 states that in exercising any discretion under rule 13.3 or 13.4, the Board must have regard to:
- (a) regulatory costs including Transpower's costs; and
 - (b) the need to avoid unnecessary delays in approving reliability investments.
- 9.3.13 In exercising its judgment, the Commission must have regard to its statutory functions, objectives and outcomes set out in the Act, the objectives and outcomes in the GPS, and the purposes of the Rules.
- 9.3.14 The exercise of discretion will become more predictable over time as investments are reviewed and increased clarity of relevant decision parameters set clear targets and expectations. Accordingly, predictability of the GUIRP process is also expected increase over time.

9.4 Commission invitation to Transpower

- 9.4.1 The Commission may invite Transpower to discuss and present an investment proposal at a meeting of the Commission's Board, if it would assist the Board's understanding of the investment proposal. Transpower may request discussions with the Board about a proposal. The materiality and timing of any discussions will be considered on a case-by-case basis.

9.5 Issuing a notice of the Commission's intention

9.5.1 Rule 15 requires the Commission to publish a notice of intention to approve some or all of the investment proposals in a GUP.

9.5.2 The notice of intention will be published on the Commission's website together with:

- (a) as soon as practicable after the notice of intention is published, a "reasons for decision" document which explains the Commission's decision, as set out in the notice of intention, and the reports and submissions the Commission has taken into consideration when making its decision;
- (b) the reports that the Commission has considered in its decision-making process;
- (c) additional information provided by Transpower; and
- (d) additional information provided by interested parties (if applicable).

9.6 Public conference

9.6.1 Within 10 business days of the Commission publishing a notice of its intention, certain parties may request the Commission to hold a public conference (rule 15.2).

9.6.2 The purpose of the public conference is to provide a final opportunity for comment on the proposed investment.

9.6.3 If no request is received, the Commission's decision, as set out in the notice of its intention, is final.

9.6.4 Rule 15.4 provides that the Commission may agree or decline the request for a public conference. If the Commission decides to decline the request it must publish its reasons. If the Commission declines to hold a conference, the Commission's decision (as set out in the notice of intention) is final.

9.6.5 If the Commission agrees to hold a public conference, the Commission may call for written comments and/or request that parties intending to present at the conference provide a copy of their presentations prior to the conference. This allows the Commission to consider any new information prior to the conference taking place.

9.6.6 The public conference provides an opportunity for the Commission to request presenters to provide additional information following the conference. The Commission may also request additional information or clarification from Transpower.

9.7 Making a final decision after the conference

- 9.7.1 Rule 15.5.1 provides that, following a public conference, the Commission may confirm or amend the investments in a grid upgrade plan.
- 9.7.2 If a public conference is held, the Commission, following the public conference, may confirm or amend the investment proposal. The Commission will consult with Transpower before exercising the power set out in this rule.
- 9.7.3 The Commission's final decision will be published on the Commission's website together with:
- (a) as soon as practicable after the final decision is published, a "reasons for decision" document which explains the Commission's final decision and the reports and submissions the Board has taken into consideration when making its final decision;
 - (b) any additional reports that the Board has considered since the notice of intention release;
 - (c) additional information provided by Transpower; and
 - (d) additional information provided by interested parties following the public conference.

9.8 Post approval

- 9.8.1 The Commission may not revoke or amend an approval of an investment except with the consent of Transpower (rule 17.2).
- 9.8.2 Although it is envisaged by both the Commission and Transpower that amendments to an approval will be the exception, it may be appropriate to amend the approval of an investment proposal in some circumstances including:
- (a) unforeseeable scope changes to an approved proposal as a result of the RMA process;
 - (b) timing changes due to unforeseeable delays (e.g. property acquisition delays);
 - (c) exceeding p90 cost estimates (which, even if there are no unforeseeable changes, it is expected will occur in respect of 1 out of every 10 projects); and
 - (d) unforeseeable events (e.g. international steel prices change significantly more than was reasonably expected).
- 9.8.3 If it is likely that Transpower will need to seek post-approval changes, Transpower will endeavour to advise the Commission of potential scope of the

changes as soon as possible. This advice will include, where appropriate, the cause of such scope changes and the possible impact on the works, cost, and timing.

- 9.8.4 Section 11.3 describes a voluntary reporting process post approval.

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10. Common issues for each stage of the DRP

10.1 Introduction

10.1.1 This chapter discusses a number of common issues for each stage of the DRP:

10.2 Divergent views

10.2.1 As set out in the executive summary, the GUIRP provides a framework within which the Commission and Transpower will interact during the process of Transpower preparing investment proposals. The free and frank exchange of views anticipated during the process is aimed at facilitating Transpower preparing an application that is capable of being approved (subject to the Commission's process requirements for considering proposals).

10.2.2 However, the process will not always lead to consensus between the Commission and Transpower. In such a situation, Transpower may continue to progress the investment proposal, including submitting it as part of a GUP. The Commission will approach its decision-making on the investment proposal with an open mind and have regard to the results of any consultation it undertakes.

10.3 Consultation with interested parties

10.3.1 This section sets out some additional guidelines for consultation with interested parties under the DRP. The actual timing of the proposed consultation process is set out in the description of the DRP above.

10.3.2 Consultation is both necessary and valuable in that interested parties are able to provide feedback on investment proposals. Consultation, therefore, results in more robust execution of the grid planning and auditor/reviewer roles.

Principles for consultation

10.3.3 When the Commission carries out a consultation, it will design its process to comply at minimum with basic standards for consultation established by case law.

10.3.4 This means that the Commission will always seek to arrange each consultation undertaken so that it complies with the principles specified by the Court of Appeal in *Wellington International Airport Ltd v Air New Zealand* [1993] 1 NZLR 671. The Commission interprets those principles as being as follows:

- (a) there are no universal requirements as to the form of consultation: any type of interaction (whether oral or written) that allows adequate expression and consideration of views will be sufficient;
- (b) consultation must be allowed sufficient time, and genuine effort must be made;
- (c) consultation involves the statement of a proposal not yet finally decided on, listening to what others have to say, considering their responses, and then deciding what to do;
- (d) for consultation to be meaningful, the decision-maker must make available sufficient information to enable parties who are consulted to be adequately informed to make “intelligent and useful” responses; and
- (e) the word “consultation” does not require agreement (although it does require more than mere telling or presenting). The Commission recognises that this principle is particularly relevant in relation to its functions. In relation to many of the issues that the Commission is required to deal with, interested parties have widely divergent views and the issues have gone unresolved for many years. The Commission recognises that it is charged with breaking such deadlocks by making decisions in relation to those matters;
- (f) “consultation” cannot be equated with “negotiation”. Negotiation implies a process that has as its objective arriving at agreement (although in consultation the tendency is at least to seek consensus);
- (g) the decision-maker must approach the matter with an open mind: the decision-maker must be prepared to change or even start the process afresh.

10.3.5 The Commission has published a consultation protocol that explains how the Commission intends to determine the level of consultation it may take when it carries out a consultation.

Timeframes

10.3.6 The standard adopted for consultation is a minimum of three weeks from publication to submission date. However, the actual timeframes for consultation should reflect the complexity and likely stakeholder interest relating to a particular investment proposal.

Workshops

- 10.3.7 The use of workshops will be set out in the DRP timeline, but addition of workshops may be discussed at any stage and undertaken if a workshop is likely to be beneficial.

Publications of submissions

- 10.3.8 When undertaking consultation, Transpower and the Commission will publish all information gained through consultation that is not confidential, as soon as practicable and will provide a summary of submissions where necessary to collate large number of submissions.

Confidential information

- 10.3.9 It should be noted that both Transpower and the Commission are bound by administrative law, which may require consultation to varying degrees. The Commission and Transpower are also bound by the Official Information Act 1982 and may be required to release information in response to a request under that Act.
- 10.3.10 It is possible that a stakeholder may hold information relevant to an investment proposal that is commercially sensitive or confidential for some other reason. It is important that a stakeholder is able to provide this information, as it may be important to the decisions and actions of both Transpower and the Commission.
- 10.3.11 During consultation it will be signalled firstly that it is both the Commission's and Transpower's preference to receive information that may be published.
- 10.3.12 Secondly, the Commission and Transpower will ask that the stakeholder provide authorisation for the confidential information to be shared, at least, between the Commission and Transpower. If confidential information is received, and it is unclear if the information may be shared, then the submitter will be approached as to whether the information may be shared by the Commission and Transpower.
- 10.3.13 If stakeholders indicate that information is unable to be shared, then the Commission and Transpower will signal that the use of the information in terms of the DRP will be limited. This means that:
- (a) if Transpower is unable to share information with the Commission, the Commission may be less likely to approve an investment; and
 - (b) if the Commission cannot share information with Transpower, Transpower cannot use the information in planning the grid; and

- (c) if the information cannot be provided to interested parties, the Commission may not be able to rely on it in making a decision, as the information may not be able to be verified.

10.3.14 Finally, in undertaking economic analysis, and in modifying market development scenarios, the Commission considers that it is not appropriate to rely on information relating to alternatives put forward by a proponent of the alternative unless such information is able to be verified or tested independently by the Commission or other interested parties. This is because the ability to determine whether the GIT has been applied reasonably may be compromised if the GIT analysis relies on confidential information that is unable to be verified or tested.

Cross submissions

10.3.15 If information provided in submissions raises important new issues, the Commission and Transpower will discuss whether it is appropriate to allow cross-submissions on the information.

10.3.16 The decision to seek cross submissions will need to balance:

- (a) the cost of seeking cross submissions in terms of the extensions to the GUIRP timeline and the use of Transpower and Commission resources; and
- (b) the likelihood of new information arising in cross submissions and the value in (further) testing submissions.

10.3.17 If cross submissions are sought, a new timeline may need to be considered.

10.4 New information

10.4.1 Throughout the DRP, either Transpower or the Commission may identify new information that impacts on the development or review of an investment proposal. When such new information comes to the attention of Transpower or the Commission, they will inform the other as soon as practicable.

10.4.2 If new information arises, the following process will be undertaken:

- (a) the party who becomes aware of the new information will notify the other party of the new information;
- (b) Transpower will then conduct, with input from the Commission, an assessment of the new information to check:
 - (i) the impact of the new information on options, e.g. the ranking of options may need to be changed; and

- (ii) the amount of re-work involved in capturing the information and its impact on meeting the need date.
- (c) if necessary, given the information gained through the assessment above, Transpower and the Commission will discuss the new information and how to include it in the investment proposal if required. The extent to which new information is included will largely depend on whether it may affect the ranking of options and the level of expenditure for which approval is sought. If the new information is to be included in an investment proposal the new information could be included by, for example, treating it as a sensitivity, resetting the DRP to an appropriate stage, or abandoning the investment proposal; and
- (d) if agreement cannot be reached on an appropriate process for including the new information, Transpower should decide the appropriate action if the information arises prior to the investment proposal being submitted to the Commission. The Commission will determine how new information is treated after the proposal is submitted to the Commission.

10.5 Review/Improvement of the GUIRP

10.5.1 The Commission will:

- (a) make amendments to the GUIRP where the need arises from changes to relevant legislation;
- (b) proactively investigate possible amendments to the GUIRP where changes in relevant legislation will allow enhancements of the GUIRP;
- (c) review the GUIRP, with input from interested parties through consultation, as required; and
- (d) review the GUIRP as requested by Transpower, including with regard to any improvement in integration with Transpower's grid planning, environmental and property processes.

11. Ensuring the integrity of the approval process

11.1 Introduction

11.1.1 This section addresses the issue of ensuring the integrity of the approval process and relates to measuring and reporting by Transpower on its delivery of an investment against the physical scope of works and cost estimates of Transpower's proposal as approved by the Commission.

11.2 Issue definition

11.2.1 The Commission has a working policy of approving the recovery of actual expenditure with a fixed cap (ie the Commission approves the recovery of the lower of an approved fixed amount or Transpower's actual costs). Transpower, with the Commission's agreement, submits P90 cost estimates as this fixed cap. P90 costs represent project completion costs which are expected to be exceeded in 1 out of 10 projects. It is not unusual for P90 cost estimates to be 30% greater than the P50 cost estimates used in the application of the grid investment test.

11.2.2 The approval of costs up to Transpower's P90 estimate allows for a reasonable number of contingencies to occur before Transpower is required to seek the Commission's approval of a revised investment proposal (that includes the contingencies that arose following the Commission's approval).

11.2.3 However, by approving costs up to the P90 level it is possible that the incentive on Transpower to deliver projects consistent with estimated costs, and to accurately estimate such costs may be adversely affected. To address this concern, a voluntary reporting process that reinforces Transpower's incentives to deliver projects in accordance with estimated costs (ie P50 costs applied in the GIT⁸) is to be established, as explained further below.

11.2.4 There are no specific rules relating to measuring Transpower's delivery of an investment against the project plan and cost estimates. However, a voluntary process in the GUIRP is the Commission's and Transpower's preference rather than introducing new Rules to require Transpower to report its performance.

⁸ The Commission notes that any loss of incentive through approving P90 costs is, in the worst case, partial. Transpower has strong incentives to maintain its reputation with its shareholder and customers, and the public.

11.3 Voluntary project reporting

- 11.3.1 Transpower and the Commission have agreed that Transpower will report on project delivery by providing:
- (a) project status including, for example, percentage completed or other such equivalent measure;
 - (b) submitted commissioning date;
 - (c) forecast commissioning date;
 - (d) project budget/approved;
 - (e) project forecast cost; and
 - (f) key project risks and high level commentary on how they are being managed.
- 11.3.2 The Commission will monitor whether Transpower has delivered projects consistent with estimates and the accuracy of Transpower's estimates.
- 11.3.3 This will ensure that the Commission and stakeholders can be confident that Transpower's cost estimates are as accurate as possible, while also recognising that unexpected events may mean that contingency amounts are not sufficient.

Appendix 1 – Cost Building Blocks (Information Required To Assess Capital Expenditure Requirements)

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