

# Grid Upgrade Investment Review Policy – Consultation Paper

Prepared by the Electricity Commission

April 2008

## Executive summary

1. In April 2007 a joint Transpower and Commission working group was set up to prepare a policy document that would:
  - (a) improve certainty around the timing of key steps in the grid upgrade approval process;
  - (b) improve the timeliness of the grid upgrade approval process;
  - (c) improve the predictability of the outcomes from the grid upgrade approval process;
  - (d) promote the efficient use of resources, including those of Transpower, the Commission and its consultants, and other stakeholders;
  - (e) promote role clarity between Transpower, the Commission and other stakeholders;
  - (f) be applicable to, but differentiated between, small, medium, large, urgent and amended investments;
  - (g) apply to both reliability and economic investments;
  - (h) clarify assumptions likely to be common to most proposals; and
  - (i) thereby, improve the grid upgrade process going forward.
2. A draft Grid Upgrade Investment and Review Policy (**GUIRP**) has now been completed which sets out the process to be followed by Transpower and the Commission to achieve the above.
3. The purpose of the GUIRP 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.
4. 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.
5. The structure of the GUIRP is as follows:
  - (a) **GUIRP principles** (Section 2) – sets out the principles that have been applied in developing the GUIRP;

- (b) **GUIRP overview** (Section 3) – briefly presents the different elements of the GUIRP;
  - (c) **The grid planning cycle** (Section 4) – discusses the linkages between the GUIRP and existing requirements;
  - (d) **The development and review process** (Sections 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** (Section 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** (Section 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.
6. The Commission is now seeking comments on the draft GUIRP. In particular, the Commission is seeking comments on key aspects of the GUIRP in respect of which a preferred approach has not been identified. The Commission is interested in obtaining submitters' views on the different approaches presented.
7. To facilitate interested parties to provide comments, the Commission intends to hold a public briefing on the draft GUIRP on 28 April 2008 in Wellington.
8. This consultation paper:
- (a) explains the development of the draft GUIRP;
  - (b) sets out the history, purpose and principles of the GUIRP; and
  - (c) seeks comments from interested parties on key aspects of the GUIRP.
9. The development of the draft GUIRP has already contributed positively to the working relationship between the Commission and Transpower.

## Glossary of abbreviations and terms

<b>ACG</b>	Allen Consulting Group
<b>Act</b>	Electricity Act 1992
<b>APR</b>	Annual Planning Report
<b>Commission</b>	Electricity Commission
<b>DRP</b>	Development and review process, as set out in sections 4 to 8 of the GUIRP
<b>GEIP</b>	Good electricity industry practice, as defined in part A of the Rules
<b>GIT</b>	Grid Investment Test
<b>GPS</b>	Government Policy Statement on Electricity Governance (October 2006)
<b>GUIRP</b>	Grid Upgrade Investment Review Policy
<b>GUP</b>	Grid Upgrade Plan
<b>M-Co</b>	The Market Place Company Limited
<b>NOI</b>	Notice of Intention
<b>Rules</b>	Electricity Governance Rules 2003
<b>SOO</b>	Statement of Opportunities
<b>TAG</b>	Transmission Advisory Group
<b>Transpower</b>	Transpower New Zealand Limited

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# 1. Introduction and purpose of this consultation paper

## 1.1 Introduction

- 1.1.1 Since the Electricity Commission (**Commission**) was established in 2003, Transpower New Zealand Limited (**Transpower**) and the Commission have gained valuable experience in proposing and considering grid expenditure respectively.
- 1.1.2 In particular, Transpower's first Grid Upgrade Plan (**GUP**) was submitted on 30 September 2005 and included a proposal to upgrade the part of the grid that connects Whakamaru to Auckland (**Original 400 kV Proposal**). The Commission assessed the Proposal as required by the Rules and, in April 2006, published its notice of intention (**NOI**) to decline the Proposal.
- 1.1.3 In December 2005, the Commission engaged The Allen Consulting Group (**ACG**) to conduct a review of the regulatory process it had followed in carrying out its assessment of the Original 400 kV Proposal. One of the recommendations in the ACG report<sup>1</sup> was that the Commission should develop a framework for its approach to the application of the Grid Investment Test (**GIT**), which would also include more detail about the process used to consider grid investment proposals.
- 1.1.4 ACG's recommendation was reinforced by views expressed<sup>2</sup> during the consultation process following the publication of the Commission's NOI to decline the Original 400 kV Proposal. Submitters, such as Contact Energy<sup>3</sup>, suggested that the Commission should develop guidelines for the application of the GIT and provide clarity on the respective roles of the Commission and Transpower in the grid investment decision-making process.
- 1.1.5 In August 2006, the Commission initiated a project aimed at implementing the ACG recommendation by developing a set of guidelines for the application of the GIT. The project was discussed by the Transmission Advisory Group (**TAG**) and was further informed by the Commission and Transpower's experiences during the Commission's assessment of Transpower's North Island Grid Upgrade (**NIGU**) Proposal.

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<sup>1</sup> <http://www.electricitycommission.govt.nz/pdfs/opdev/transmis/400Kv/Allen-report.pdf>

<sup>2</sup> Submissions received on the Commission Notice of Intention to decline the 400 kV proposal are available at <http://www.electricitycommission.govt.nz/submissions/substransmission/draftdecision>

<sup>3</sup> Pages 1 and 2 of Contact Energy submission. Contact Energy submission is available at: <http://www.electricitycommission.govt.nz/pdfs/submissions/pdfstransmission/draft-decision/Contact.pdf>

- 1.1.6 Most recently, in April 2007 a joint Transpower and Commission working group was set up to progress this work. A draft Grid Upgrade Investment and Review Policy (**GUIRP**) has now been completed which sets out the processes to be followed by Transpower and the Commission in undertaking their respective roles.
- 1.1.7 The development of the GUIRP has already contributed positively to the working relationship between the Commission and Transpower.
- 1.1.8 The Commission is now seeking comments on the draft GUIRP. In particular, the Commission is seeking comments on key aspects of the GUIRP in respect of which a preferred approach has not been identified. The Commission is interested in obtaining submitters' views on the different approaches presented.
- 1.1.9 To facilitate interested parties to provide comments, the Commission intends to hold a public briefing on the draft GUIRP in Wellington.
- 1.1.10 The GUIRP is not required by the rules. It is an operational policy. The regulatory framework for the approval process is established by part F of the Electricity Governance Rules 2003. As such the legislative requirements such as the Rules will always take precedence over anything agreed or otherwise within the GUIRP.

## 1.2 Purpose of this paper

- 1.2.1 This consultation paper:
- (a) explains the development of the draft GUIRP;
  - (b) sets out the history, purpose and principles of the GUIRP; and
  - (c) seeks submissions from interested parties on key aspects of the GUIRP.
- 1.2.2 The consultation paper should be read in conjunction with the GUIRP document.

## 1.3 Submissions

- 1.3.1 The Commission's preference is to receive submissions in electronic format (Microsoft Word and/or pdf). Submissions in electronic format should be emailed with 'draft GUIRP submission' in the subject header to [info@electricitycommission.govt.nz](mailto:info@electricitycommission.govt.nz).
- 1.3.2 If submitters do not wish to send their submission electronically, they should post one hard copy of their submission to the address below.

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- 1.3.3 Submissions should be received by midday on 5 May 2008. Please note that late submissions may not be considered. The Commission will acknowledge receipt of all submissions electronically. Please contact Amy Henderson if you do not receive electronic acknowledgement of your submission within two business days.
- 1.3.4 Your submission is likely to be made available to the general public on the Commission's website. Submitters should indicate any documents attached, in support of the submission, in a covering letter and clearly indicate any information that is provided to the Commission on a confidential basis. The Commission is subject to the Official Information Act 1982. Therefore, if the Commission receives a request for information, including information in a submission, the Commission must consider the request in accordance with that Act.

## 2. Background

### 2.1 Legislative framework

2.1.1 The Commission was established under the Electricity Act 1992 (**Act**). Part 15 of the Act sets out principal objectives, specific outcomes, and functions of the Commission, including:

- the objective of ensuring that electricity is produced and delivered to all classes of consumer in an efficient, fair, reliable, and environmentally sustainable manner (section 172N(1)(a)); and
- the outcome that risks (including price risks) relating to security of supply are properly and efficiently managed (section 172N(2)(b)); and
- the function of formulating and making recommendations concerning electricity governance regulations and rules (section 172O(1)(a)); and
- the function of giving effect to objectives and outcomes that the Government wants to achieve, which must be set by the Minister in accordance with section 172ZK of the Act (section 172O(1)(j)).

2.1.2 Section 172D sets out the regulation-making powers for electricity governance regulations. In particular, paragraphs (3) to (8) of subsection (1) of section 172D set out the regulation-making powers relating to transmission.

2.1.3 The Act also provides for the making of electricity governance rules (section 172H). Electricity governance rules may be made for any or all of the purposes for which an electricity governance regulation may be made. The Rules were made under section 172H.

2.1.4 Part F of the Rules sets out a series of processes that the Commission must follow to produce comprehensive transmission pricing, transmission contracting, and transmission investment arrangements. Section III of part F sets out the Commission's decision-making powers regarding investments proposed by Transpower.<sup>4</sup>

2.1.5 Rule 2 sets out the purposes of the rules in section III of part F, which include the purposes of facilitating Transpower's ability to develop and implement long-term

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<sup>4</sup> References in this paper to rules are to rules in section III of part F of the Rules unless otherwise stated.

plans for investments in the grid, and enabling the cost of approved investments to be recovered through the transmission pricing methodology.

- 2.1.6 The rules are permissive in the sense that, although the Commission can request Transpower to submit a grid upgrade plan (**GUP**) under rule 12 and has the power to not approve a given proposal, it is up to Transpower to decide on the scope of investments that are contained within the GUP and put before the Commission for approval.
- 2.1.7 Rule 12.1.1 provides that the purpose of a GUP is to enable Transpower to propose, and for the Commission to review and approve:
- “reliability investments” that are justified on the basis of the GRS and GIT;
  - “economic investments” justified on the basis of the GIT.
- 2.1.8 Reliability investments are defined in part A of the Rules as “*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**.*”
- 2.1.9 Economic investments are defined in part A of the Rules as investments in the grid that can be justified on the basis of the GIT and which are not reliability investments.
- 2.1.10 The Commission must consider investments contained in a GUP submitted by Transpower in accordance with rule 13 (in respect of reliability investments) or rule 14 (in respect of economic investments).
- 2.1.11 Rule 13.4 provides that the Commission may approve a reliability investment if the Commission is satisfied that the investment:
- (a) reflects good electricity industry practice in meeting grid reliability standards (rule 13.4.1.1);
  - (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).
- 2.1.12 The Commission may approve an economic investment only if Transpower has followed any agreed consultation process, and if Transpower has applied the GIT reasonably (rule 14.4).
- 2.1.13 Therefore, in broad terms at least, the requirement that the relevant investment satisfy the GIT is common to the analysis of both reliability investments and economic investments.

## The grid investment test (GIT)

2.1.14 The GIT is contained in schedule F4 of section III of part F of the GUI rules. The essence of the GIT is in clause 4, which states:

- “4. A **proposed investment** satisfies the **grid investment test** if the **Board** is reasonably satisfied that:
  - 4.1. for a **proposed investment** that is necessary to meet the reliability standard set out in clause 4.2 of the **grid reliability standards**:
    - 4.1.1. the **proposed investment** maximises the **expected net market benefit** or minimises the **expected net market cost** compared with a number of **alternative projects**; and
    - 4.1.2. if sensitivity analysis is conducted, a conclusion that a **proposed investment** satisfies clause 4.1.1 is sufficiently robust having regard to the results of that sensitivity analysis; or
  - 4.2. for any other **proposed investment**:
    - 4.2.1. the **proposed investment** maximises the **expected net market benefit** compared with a number of **alternative projects**;
    - 4.2.2. the **expected net market benefit** of the **proposed investment** is greater than zero; and
    - 4.2.3. if sensitivity analysis is conducted, a conclusion that a **proposed investment** satisfies clauses 4.2.1 and 4.2.2 is sufficiently robust having regard to the results of that sensitivity analysis.”

2.1.15 While the GIT sets some “default assumptions” (for example, the value of unserved energy to be used), the majority of economic and technical assumptions must be determined in respect of each investment proposal.

2.1.16 Efficient and timely investment in transmission or its alternatives will improve long-term security of supply and system reliability for consumers, as well as supporting the functioning of the electricity market. Hence, it is important the process for approving investment proposals, including how assumptions used in the analysis are arrived at, is understood, effective, and efficient.

## Government policy statement

2.1.17 In October 2006, the Government issued a revised Government Policy Statement on Electricity Governance (**GPS**) (October 2006) designed to improve the quality

and timeliness of decision-making on transmission. The revisions clarified the Government's expectations regarding the roles of Transpower as the grid planner, and the Commission as the reviewer and approver of investments that meet the requirements of the rules.

2.1.18 The GPS recommends a clear framework. Specifically, paragraph 87E of the GPS states:

“The Electricity Commission should make available to Transpower and other stakeholders clear and specific criteria on how grid upgrade plans in general and any particular plan specifically will be reviewed and approved or rejected. These criteria should be clearly explained so that a review process can be understood and replicated by stakeholders.”

2.1.19 The GUIRP is intended to provide the clarity sought by the GPS by setting out the process followed during the development and assessment of a proposal.

## 2.2 History of the GUIRP

2.2.1 It became obvious to the Commission in early 2006 that some stakeholders did not understand the part F processes followed by the Commission to assess grid investments proposed by Transpower.

2.2.2 In addition, the Commission and Transpower had divergent views regarding how various rules in section III of part F and clauses in the GIT should be interpreted.

2.2.3 The working relationship between the Commission and Transpower was adversely affected by the differences in interpretation of part F. This led to increased workload for both parties as they sought to resolve differences.

2.2.4 The most important issue to resolve was how the GIT would be applied to investment proposals. In early 2006 the Commission initiated a piece of work to develop a set of GIT guidelines for the application of the GIT. When it started to develop guidelines, the Commission considered that such guidelines would:

- (a) develop a common understanding of the application of the GIT;
- (b) ensure transparent implementation of the Rules; and
- (c) ensure a “no surprises” approach that would facilitate stakeholders’ understanding of the application of the GIT.

2.2.5 The work on the GIT guidelines was later on put on hold as, at the time, the Commission was assessing multiple investment proposals submitted by Transpower and because of resource constraints was unable to progress the work. However, the intention remained that this work (or a similar piece of work) would resume at some point.

- 2.2.6 Since that time, there has been a growing understanding by the Commission of the rationale for some of Transpower's investment proposals, and by Transpower of the Commission's method of applying the GIT.
- 2.2.7 The understanding of the Commission and Transpower's roles has been facilitated through the use of an "interim work phase" for a number of projects. The purpose of an interim work phase is to discuss development of Transpower's proposal and an indicative application of the GIT in order to assist Transpower to prepare a proposal with a high level of confidence that it will meet the Commission's criteria for consideration and approval of an investment proposal. The interim work phase ensures efficient use of resources for all parties involved.
- 2.2.8 The interim work phase has been successfully used for some of the most recent of Transpower's proposals, including the NIGU Proposal, the HVDC Proposal, and the North Auckland and Northland Grid Upgrade proposal.
- 2.2.9 The interim work phase for those projects included discussion between the Commission and Transpower (on a without prejudice basis) on:
- (a) the level of detail which should be included in the proposal;
  - (b) the key inputs and assumptions;
  - (c) the methodology that will be used in applying the GIT;
  - (d) short-listing of transmission options which should be considered;
  - (e) the framework for considering the non-transmission alternatives;
  - (f) the costs and benefits to be included in the GIT; and
  - (g) the results from Transpower's indicative application of the GIT.
- 2.2.10 At the end of April 2007, work on developing a set of guidelines resumed. It followed consideration of:
- (a) the recommendations provided by ACG;
  - (b) comments received in relation to the Commission's April 2006 NOI to decline the Original 400 kV Proposal;
  - (c) the GPS; and
  - (d) the experience gained during the interim work phase of the NIGU, HVDC, and NAaN proposals, and during the assessment of the NIGU Proposal;
- 2.2.11 The Commission decided to engage South Hill Consulting Limited and the Market Place Company Limited (**M-Co**) to assist with the development of a policy to cover the grid upgrade and investment review process set out in the Rules. South Hill Consulting and M-Co facilitated a joint Commission and Transpower staff working group with the aim of making significant progress within a short time on the key aspects of the grid upgrade investment and review policy.

- 2.2.12 The overarching purpose of the working group was to “develop a draft policy, consistent with the rules, that aims to promote an efficient, effective, transparent and predictable grid upgrade approval process”.
- 2.2.13 The terms of reference for the working group stated that the purpose of the policy was to:
- (a) improve certainty around the timing of key steps in the grid upgrade approval process;
  - (b) improve the timeliness of the grid upgrade approval process;
  - (c) improve the predictability of the outcomes from the grid upgrade approval process;
  - (d) promote the efficient use of resources, including those of Transpower, the Commission and its consultants, and other stakeholders;
  - (e) promote role clarity between Transpower, the Commission and other stakeholders;
  - (f) be applicable to, but differentiated between, small, medium, large, urgent and amended investments, for both reliability and economic investments;
  - (g) clarify assumptions likely to be common to most proposals; and thereby, improve the grid upgrade process going forward.
- 2.2.14 One of the first steps undertaken by the working group was to identify and document the key issues that need to be addressed in the GUIRP. The working group then developed process diagrams to explain the GUIRP approaches for:
- (a) large-scale projects (whether economic or reliability investments);
  - (b) smaller “bundles” of investments; and
  - (c) an annual cycle of assessment and approval for smaller projects that is closely aligned with the timing of Transpower’s Annual Planning Report (**APR**) and the Commission’s publication of the Statement of Opportunities (**SOO**).
- 2.2.15 Based on the outcome of the working group and the feedback provided by Transpower and the Commission the GUIRP was developed.

## 2.3 Purpose of the GUIRP

- 2.3.1 The purpose of the GUIRP 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.

- 2.3.2 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.
- 2.3.3 The GUIRP sets out the various steps that the Commission and Transpower will follow from the early stage of proposal development by Transpower through to the assessment and decision-making stage by the Commission.
- 2.3.4 Central to the GUIRP is the establishment of a standard process for the development of, and decision-making regarding, investment proposals. The GUIRP is designed to comply with the Rules and be consistent with the GPS but provides additional details to ensure that investment planning, development, and review processes are as transparent as possible and facilitates stakeholders understanding of the processes involved.
- 2.3.5 The Commission considers that the GUIRP and Transpower's overall business planning cycle should, ideally, be compatible.
- 2.3.6 Hence, Transpower's annual grid planning business planning cycle, and in particular:
- (a) the APR publication;
  - (b) the annual update of the Comprehensive Plan for Asset Management and Operation of the grid ; and
  - (c) regional consultations,
- are referenced in the GUIRP so that Transpower is able to manage the projects it is developing to a successful completion.

<b>Q1. Do you agree with the purpose of the GUIRP? If not what should it seek to achieve? Please give reasons for your views.</b>
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### 3. GUIRP structure

3.1 The structure of the GUIRP is as follows:

- (a) **GUIRP principles** (Section 2) – sets out the principles that have been applied in developing the GUIRP;
- (b) **GUIRP overview** (Section 3) – briefly presents the different elements of the GUIRP;
- (c) **The grid planning cycle** (Section 4) – discusses the linkages between the GUIRP and existing requirements;
- (d) **The development and review process** (Sections 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** (Section 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** (Section 11) – discusses the incentives on Transpower to efficiently deliver a transmission investment.

3.1.2 The following sections below provide a high-level summary of the content and purpose of each of the sections that form part of the GUIRP document.

**Q2. In the context of establishing an operational policy, are there any additional aspects of the grid planning and investment approval process that should be covered by the GUIRP? Please give reasons for your views.**

#### 3.2 Section 2 – GUIRP principles

3.2.1 Section 2 of the GUIRP sets out the principles applied in developing the GUIRP. These principles are drawn from the Commission’s principal objectives and specific outcomes set out in the Act, the GPS, the Rules, and the purpose of the GUIRP.

**Q3. Do you consider that the principles set out in section 1 of the GUIRP are appropriate? Please give reasons for your views.**

#### 3.3 Section 3 – Overview of the GUIRP

3.3.1 Section 3 of the GUIRP summarises the GUIRP and the development and review process (**DRP**) set out in detail in the later sections.

- 3.3.2 The overview section notes that the DRP captures the fundamental stages but the actual application will vary according to the scale and scope of the investment proposal. It also includes a summary of the differences and similarities between reliability and economic investments, and how the DRP allows for the different process for analysing and decision-making criteria for reliability and economic investments.

**Q4. Do you consider that the process in the GUIRP clearly sets out the different requirements for approving the two types of investment? Please give reasons for your views.**

## 3.4 Section 4 – Grid planning cycle

- 3.4.1 Section 4 of the GUIRP summarises the grid planning cycle and its alignment with the development and review process (**DRP**) set out in sections 4 to 8 of the GUIRP. The grid planning cycle combines existing Transpower and Commission processes and rule requirements to identify instances where investment in transmission assets may be necessary or appropriate and where there are possible opportunities for non-transmission alternatives.
- 3.4.2 Paragraph 86 of the GPS published in October 2006 states the Government’s expectation that the Commission should prepare and publish a SOO every two years. The grid planning cycle is also a two year cycle to align with the GPS expectation.
- 3.4.3 One feature of the grid planning cycle is the proposal that Transpower publish a “projects calendar” that will capture all investments that Transpower considers likely to be investigated and developed into proposals over the following five years.

**Q5. Do you consider that the grid planning cycle is appropriately structured? Please give reasons for your views.**

**Q6. Do you consider the approach to Common Assumptions and their purpose are appropriate? Please give reasons for your views.**

**Q7. Do you have any suggestions on how the integration of the grid planning cycle with DRP might be improved? Please give reasons for your views.**

## 3.5 Sections 5 to 9 – Development and review process

- 3.5.1 Sections 5 to 9 of the GUIRP explain the DRP. The DRP is intended to guide Transpower’s development of investment proposals, and sets out the

Commission's decision-making process. While the GUIRP contains the key stages that Transpower is required to undertake, the DRP will be flexible in terms of its implementation. That is, the DRP will vary depending on the nature of the investment under consideration.

3.5.2 The DRP has five key stages which are described below:

- (a) the preparatory stage (section 5);
- (b) the long list stage (section 6);
- (c) the short list stage (section 7);
- (d) selection of the preferred options (section 8); and
- (e) the Commission's decision-making process (section 9).

### 3.6 Section 5 – Preparatory Stage

3.6.1 The preparatory stage involves establishing the scope, size and timeframe for the proposal. The tasks included in the preparatory stage are largely carried out by Transpower.

3.6.2 Transpower is proposing to provide information in the APR regarding why a particular project has been selected and the proposed timing of the project.

**Q8. Do you consider the preparatory stage includes the appropriate items and follows an appropriate process? If not what aspects should be removed or included? Please give reasons for your views.**

**Q9. Do you consider the APR will provide sufficient detail to determine project importance? Please give reasons for your views.**

### 3.7 Section 6 – Long Listing Stage

3.7.1 Section 5 of the GUIRP describes the “long listing” stage. The long listing stage sets out the process and items for consideration when Transpower establishes a long list of options to address an identified need.

**Q10. Do you consider the long listing stage includes the appropriate items and follows an appropriate process? If not what aspects should be removed or included?**

## 3.8 Section 7 – Establishing the short list

3.8.1 Section 6 of the GUIRP describes the short listing stage. The short listing stage sets out the process of going from a long list to a short list of options that will be assessed in greater detail.

3.8.2 There are two aspects of the short listing stage in respect of which there are differing approaches:

- (a) Model selection;
- (b) The degree to which material uncertainties relating to project costs, timing and feasibility can be addressed prior to the submission of a proposal.

### **Model selection**

3.8.3 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.

3.8.4 However, if a proprietary model is used (because it is best practice) the requirement to disclose algorithms is potentially unworkable as developers of models are unlikely to allow access to source code. It may be adequate for the GUIRP to require that any model used in the analysis has been developed using good software development processes or has wide application in the electricity industry. As long as interested parties can purchase the models and there is full disclosure of data books allowing interested parties to replicate the results, the transparency requirements are met.

3.8.5 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.

3.8.6 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.

3.8.7 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

**Q11. .Do you consider that transparency is important when models are used for investment analysis purposes? Please give reasons for your views.**

**Q12. What level of transparency is important to you in terms of reviewing the costs and benefits of an investment proposal? For example, do you consider that it is important for stakeholders to have the option to access algorithms, code and data files used in calculations? Please give reasons for your views.**

### **Addressing Material Uncertainties**

3.8.8 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.

3.8.9 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). The material uncertainties are:

- (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.

3.8.10 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) prior to the submission of an investment proposal.

- 3.8.11 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 and would prefer that the level of detail required was determined on case-by-case basis. 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.
- 3.8.12 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.
- 3.8.13 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:
- (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.

3.8.14 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.

**Q13. Do you consider the short listing stage includes the appropriate items and follows an appropriate process? If not what aspects should be removed or included? Please give reasons for your views.**

**Q14. What do you consider the issues are with the:**

- a. Sequential approach; and
- b. RMA coordination approach?

**Q15. Do you have any experience of seeking resource consents and/or property rights prior to formal project commitment? Please describe your experience.**

## 3.9 Section 8 - Selecting and finalising the preferred option

3.9.1 Section 7 of the GUIRP describes how Transpower selects its preferred option. Section 7 also explains the rule requirements regarding establishing a timetable for consultation regarding the relevant proposal.

**Q16. Do you consider the preferred option selection stage includes the appropriate items and follows an appropriate process? If not, what aspects should be removed or included? Please give reasons for your views.**

3.10 Section 9 – Commission decision-making process

3.10.1 The Commission’s decision-making process is set out in section III of part F. Section 8 of the GUIRP elaborates on how the decision-making process applies.

**Q17. Do you consider that any additional parts of the process should be included in the decision-making stage?**

3.11 Section 10 – Common issues

3.11.1 Section 9 of the GUIRP addresses three common issues that may arise during the DRP:

- (a) divergent views;
- (b) the consultation process; and
- (c) the process for changing or updating the GUIRP.

3.11.2 Each of the issues is discussed in turn below.

**Divergent views**

3.11.3 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 requirement for consideration of proposals).

3.11.4 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 results of any consultation it undertakes.

**The Consultation Process**

3.11.5 The GUIRP sets out guidelines for the consultation process. This includes guidelines for consultation, guidelines around the publication of information and a process for seeking cross-submissions. As part of this the GUIRP includes:

- (a) timeframes including a minimum and an expected timeline for the DRP; and
- (b) how new information which impacts on the development or review of an investment proposal will be considered and possibly included in an investment proposal.

**Q18. Do you consider the consultation section of the GUIRP includes the appropriate items and follows an appropriate process? If not, what aspects should be removed or included? Please give reasons for your views.**

### **Reviewing and Updating the GUIRP**

3.11.6 The GUIRP contains a section on reviewing and improving the GUIRP. This covers how the Commission will make amendments to or investigate possible amendments to the GUIRP.

**Q19. Do you consider the GUIRP review section includes the appropriate items and follows an appropriate process? If not, what aspects should be removed or included? Please give reasons for your views.**

**Q20. Do you consider the draft GUIRP is consistent with the principles set out in section 3 of the draft GUIRP? Please give reasons for your views.**

### 3.12 Section 11 – Ensuring the integrity of the approval process

3.12.1 Section 10 of the GUIRP 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 project plan and cost estimates provided to the Commission when approving the investment proposal.

3.12.2 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). Recently, the fixed cap has been Transpower’s P90 cost estimate. 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.

3.12.3 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).

- 3.12.4 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 GIT<sup>5</sup>) is to be established, as explained further below.
- 3.12.5 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 preference rather than introducing new Rules to require Transpower to report its performance.
- 3.12.6 The Commission and Transpower have agreed that Transpower will report in 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.
- 3.12.7 The Commission will monitor whether Transpower has delivered project consistent with estimates and the accuracy of Transpower's estimates.
- 3.12.8 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.

**Q21. Do you consider it necessary to have a post approval reporting and monitoring process in the GUIRP? Please give reasons for your views.**

**Q22. Do you prefer a voluntary approach or rules based approach? Please give reasons for your views.**

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<sup>5</sup> 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.

## Appendix 1 Draft GUIRP