Consultation Paper

Proposed Code Amendment

Regulatory Framework for the Transmission Pricing Methodology

Prepared by the Electricity Authority

16 February 2011

Executive summary

1. The establishment of the Electricity Authority (Authority) with a new statutory objective[1] has led to a reconsideration of the decision framework that underpinned previous decisions about the transmission pricing methodology (TPM).

2. The decision framework for the development of the guidelines and the TPM consists of:

   (a) relevant provisions of the Electricity Industry Act 2010 (Act), where the new statutory objective is of particular relevance;

   (b) specific provisions of the Electricity Industry Participation Code (Code) (which includes the pricing principles as set out in the clause 12.79 of the Code (pricing principles) and provisions on their interpretation and application); and

   (c) potentially statements of government policy.

3. The Authority reviewed the ongoing relevance of the pricing principles and is proposing an amendment to the Code.

4. Initial analysis supports the contention that the interface between the statutory objective, the guidelines and the pricing principles is complex and unwieldy and combined with the ongoing lack of consensus around the pricing principles is a demonstrable regulatory failure.

5. The Authority's proposed approach is to remove the pricing principles and the related interpretation clauses (clauses 12.79 and 12.80) from the Code. To proceed with this approach the Authority must initiate a Code amendment process in accordance with section 39 of the Act.

6. The interpretation and application of the pricing principles has been contentious and complex. The Code provides that "*in applying the pricing principles the conflict should be resolved with the objective of best satisfying the Authority's statutory objective*"[2].

7. Although the pricing principles are unchanged in the transition from the Electricity Governance Rules to the Code, it is the application and interpretation of them under the new statutory objective that may have implications for the review of the TPM.

8. Submissions on previous consultations indicate the majority of interested parties find the pricing principles problematic, and there appears to be a lack of confidence in the decision framework for the guidelines and the TPM.

9. This paper incorporates the Code amendment regulatory statement[3] and the complete analysis of the proposed amendment is set out in that regulatory statement. The regulatory statement must include:

[1] Section 15, Electricity Industry Act, 2010

[2] Refer Clause 12.80 of the Code

[3] Required by section 39(2), Electricity Act, 2010

(a) a statement of the objectives of the proposed amendment;

(b) an evaluation of the costs and benefits of the proposed amendment; and

(c) an evaluation of alternative means of achieving the proposed amendment.

10. The objectives of the Code amendment proposal are to:

(a) Simplify the decision framework for developing and evaluating the guidelines and the TPM.

(b) Reduce transaction costs for the Authority and interested parties in formulating the guidelines and the TPM.

(c) Remove superfluous regulation and simplify the Code.

(d) Recognise and reflect the Authority's narrower statutory objective.

11. The paper identifies three possible means to achieve the objectives:

(a) Option 1 – Remove the pricing principles from the Code and assess the consistency of any proposals relating to the guidelines and the TPM against the Authority's statutory objective. (Proposal)

(b) Option 2 – Confirm existing pricing principles. This option requires no Code amendment. (Status quo)

(c) Option 3 – Introduce new pricing principles to reflect the new statutory objective. This would require a Code amendment. (Revised principles)

12. The options have been assessed against the evaluation criteria set out in the Code amendment principles (CA principles) and the objectives of the proposal. The most relevant CA principles are:

CA principle 1 - Lawfulness.

CA principle 2 - Clearly identified efficiency gain or market or regulatory failure.

CA principle 3 - Quantitative assessment of the long-term net benefits to consumers to the extent it is considered appropriate in each case.

13. The qualitative and quantitative analysis was considered sufficient not to have to apply Code amendment principles 4 – 8 and that their relevance to the Code amendment being considered was minimal.

14. The table below shows in short form the assessments made about each option in section 4 and summarised in section 5.

	Option 1 (Proposal)	Option 2 (Status quo)	Option 3 (Revised principles)
Analysis against the CA principles			
Lawfulness	✓	✓	✓
Consistency with competition limb (statutory objective)	✓	✓	✓
Consistency with reliable supply limb (statutory objective)	✓✓	✗	✓
Consistency with efficient operation limb (statutory objective)	✓✓	✓	✓✓
Mitigates regulatory failure	✓✓	✗	✓
Analysis against objectives of the Code amendment			
Simplifies the decision framework for developing the guidelines and the TPM.	✓✓	✗	✓
Minimises to the extent possible transaction costs for the Authority and interested parties in formulating the guidelines and the TPM.	✓	✗	✗✗
Removes superfluous regulation and simplifies the Code.	✓	✗	✗
Consistency with narrower focus of the Authority	✓	✗✗	✓

15. A quantitative cost benefit analysis was undertaken and the results support the above qualitative analysis. Dynamic efficiency costs (attributable to less efficient and/or delayed investment and reduced robustness of the system) were not estimated but could be many times greater than the costs associated with the more measurable variables calculated. However, as the dynamic efficiency gains result from reducing the complexity of the Code, estimating these gains would increase the net benefit of the proposal against the alternatives. Details of this analysis, including the assumptions and scenarios that were applied, are set out in section 5. The costs and benefits are expressed relative to option 2 which is treated as the counterfactual as it is the status quo. The base case cost is compared against two sensitivity cases.

16. The conclusion drawn from the analysis is that the proposed amendment has a higher net benefit than the two alternatives.

17. The Authority expects that it will make a decision by mid-April on the proposed Code amendment. The table below shows the timetable for the review of the regulatory framework including the Code amendment process

Review of regulatory framework	
1. Publish consultation paper on the proposed Code amendment including the regulatory statement.	14 February 2011
2. Deadline for submissions.	14 March 2011
3. Publish decision document	April 2011

Glossary of abbreviations and terms

Act	Electricity Industry Act 2010
Authority	Electricity Authority
CA principles	Code amendment principles
Code	Electricity Industry Participation Code
Commission	Electricity Commission
Guidelines	Guidelines published in an Issues Paper.
Issues Paper	Paper issued by the Authority in accordance with clauses 12.81 to 12.83 of the Code setting out the process for the development of the transmission pricing methodology; and any guidelines that Transpower must follow in developing the transmission pricing methodology.
Minister	Minister of Energy and Resources
Pricing principles	Pricing principles for the transmission pricing methodology are set out in clause 12.79 of the Electricity Industry Participation Code.
Review	Transmission pricing review
Rules	Electricity Governance Rules
Statutory objective	The Electricity Authority's statutory objective as set out in section 15 of the Electricity Industry Act 2010.
TPM	Transmission pricing methodology
TPTG	Transmission Pricing Technical Group

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1. Introduction and purpose of this paper

1.1 Introduction

1.1.1 The establishment of the Electricity Authority (Authority) with a new statutory objective[4] has led to a reconsideration of the decision framework that underpinned previous decisions about the transmission pricing methodology (TPM).

1.1.2 As part of this process the Authority reviewed the ongoing relevance of the pricing principles and is proposing an amendment to the Electricity Industry Participation Code (Code). The Authority's proposal is to remove the pricing principles, set out in clause 12.79 of the Code (pricing principles) and the related interpretation clause (clause 12.80). This would result in any proposals relating to the guidelines[5] and the TPM being assessed against the Authority's statutory objective.

1.1.3 The Authority has evaluated the proposed Code amendment against two alternatives – the status quo and a revised set of pricing principles.

1.1.4 In the preparation of this proposed Code amendment the Authority has sought advice from the Transmission Pricing Technical Group (TPTG) on both the ongoing relevance of the pricing principles to the TPM decision framework and the proposed Code amendment.

1.2 Purpose of this paper

1.2.1 The purpose of this paper is twofold.

(a) First, to advise of the Authority's analysis of the decision framework for the TPM in light of the changes brought about by the Electricity Industry Act 2010 (Act). This includes the Authority's decision to initiate a Code amendment process to remove the pricing principles from the Code.

(b) Second, to consult on the proposed Code amendment to remove the pricing principles from the decision framework for the TPM.

1.2.2 This paper publishes the proposed Code amendments[6] and sections 3-5 of the paper are a regulatory statement in accordance with section 39 of the Act.

1.2.3 The regulatory statement required for a proposed amendment to the Code must include the following[7]:

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4 Section 15 of the Act.

5 Clauses 12.81 to 12.83 of the Code describe the process whereby the Authority publishes guidelines that Transpower must follow in developing the TPM.

6 The proposed Code amendments are set out in Appendix A.

7 Refer section 39(2) of the Act.

(a) a statement of the objectives of the proposed amendment;

(b) an evaluation of the costs and benefits of the proposed amendment; and

(c) an evaluation of alternative means of achieving the objectives of the proposed amendment.

1.2.4 The Authority invites submissions on the proposal in this paper, including drafting comments on the proposed Code amendments[8].

1.3 Submissions

1.3.1 The Authority's preference is to receive submissions in electronic format (Microsoft Word). It is not necessary to send hard copies of submissions to the Authority, unless it is not possible to do so electronically. Submissions in electronic form should be emailed to submissions@ea.govt.nz with Consultation Paper—Regulatory Framework for the Transmission Pricing Methodology in the subject line.

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.

Submissions
Electricity Authority
PO Box 10041
Wellington 6143

or

Submissions
Electricity Authority
Level 7, ASB Bank Tower
2 Hunter Street
Wellington

Tel: 0-4-460 8860

Fax: 0-4-460 8879

1.3.3 Submissions should be received by 5.00 pm on 14 March 2011. Please note that late submissions are unlikely to be considered.

1.3.4 The Authority will acknowledge receipt of all submissions electronically. Please contact the Submissions' Administrator if you do not receive electronic acknowledgement of your submission within two business days.

1.3.5 Your submission is likely to be made available to the general public on the Authority's website. Submitters should indicate any documents attached, in support of the submission, in a covering letter and clearly indicate any

[8] The proposed Code changes are set out in Appendix A.

information that is provided to the Authority on a confidential basis. However, all information provided to the Authority is subject to the Official Information Act 1982.

2. Transmission pricing review and impact of regulatory changes

2.1 Transmission pricing review

2.1.1 The Authority is undertaking a wide-ranging review of options for the allocation methodology for transmission costs (review). The review was commenced under the jurisdiction of the Electricity Commission (Commission) and the Electricity Act 1992. The review is now being conducted by the Authority under the Electricity Industry Act 2010.

2.1.2 In the event that the review identifies a preferred transmission pricing option other than the status quo, revised pricing guidelines will be issued to Transpower for developing a new TPM. The process for the development and approval of the guidelines and of a TPM is prescribed in subpart 4 of part 12 of the Code.

2.1.3 The Code[9] provides that the purpose of the TPM is to ensure the full economic costs of Transpower's services are allocated in accordance with the pricing principles and the other conditions set out in clause 12.80.

2.1.4 The Commission had expected three initial analysis and consultation stages would be required. Each stage would include a paper for consultation with the final Issues Paper[10] planned for the end of 2010. For the reasons set out in the revised process for the transmission pricing review [http://www.ea.govt.nz/our-work/programmes/priority-projects/transmission-pricing-review/] it is now anticipated that the Issues Paper will be published in June 2011.

2.1.5 This Code amendment paper was not anticipated in the original work programme. It follows the second of the three planned consultation papers.

2.1.6 Stage 1 - a review of issues with current transmission pricing and identification of high-level options. Of relevance here was that the paper asked whether the pricing principles should be reviewed. Most submitters were in favour of a review [http://www.ea.govt.nz/our-work/consultations/transmission/tpr/]

2.1.7 Stage 2 – to identify a list of selected options. The stage 2 options were developed from concepts contained in the high level options set out in the stage 1 consultation paper as well as detailed analysis. The paper published the Commission's decision not to review the pricing principles at that time. [http://www.ea.govt.nz/our-work/consultations/transmission/tpr-stage2options/]

2.1.8 Stage 3 – identification of and detailed evaluation of a preferred option for the allocation of transmission costs and, if the analysis suggests a change from the status quo, the publication of an Issues Paper setting out guidelines that

9 Clause 12.78 to 12.79.

10 The process for consulting on and publish the Issues Paper is set out in clauses 12.81 to 12.83 of the Code.

Transpower must follow in developing the TPM, and the process for the development of the TPM. Any preferred option identified in an Issues Paper would be based on the Authority's ongoing analysis, submitters' views and the stage 2 options; the preferred option may be one of the stage 2 options or an amalgam of concepts. The preferred option would be reflected in the guidelines which provide specific guidance to Transpower in developing the TPM.

2.1.9 The project is now at stage 3. In the event that the Authority determines there should be a change to the guidelines, an Issues Paper will need to be prepared. The published guidelines will support Transpower's decision making as it reformulates the TPM to reflect the preferred option.

2.1.10 The establishment of the Transmission Pricing Advisory Group (TPAG)[11] and the development of its work programme may result in changes to the review work programme.

2.2 Consideration of the regulatory framework for the TPM under the Electricity Industry Act 2010

2.2.1 The decision making framework for development of the guidelines and the TPM consists of relevant provisions in the Act, specific provisions of the Code and potentially statements of government policy.

2.2.2 The relevant matters are summarised in Table 1 below:

Table 1: Relevant matters for consideration

Relevant matters	Details
Matters relevant to the development of the guidelines	Authority's statutory objective[12]. Pricing principles – in applying the pricing principles Transpower and the Authority must take into account practical considerations, transaction costs and the desirability of consistency and certainty. Any conflicts in applying the pricing principles should be resolved with the objective of best satisfying the Authority's statutory objective. Authority must have regard to any statements of government policy[13].

[11] Details of TPAG can be found on the Authority's web site - http://www.ea.govt.nz/our-work/advisory-working-groups/tpag/

[12] Refer section 15 of the Act

Relevant matters	Details
Matters relevant to the development and approval of the TPM	Authority's statutory objective. Any determination made under Part 4 of the Commerce Act 1986. Pricing principles. Guidelines. (Code amendment principles[14].)

2.3 History of the pricing principles

2.3.1 The current pricing principles in the Code (formerly the Electricity Governance Rules 2003) (Rules) are closely aligned to the pricing principles set out in the Government Policy Statement on Electricity Governance October 2004 (GPS)[15]. The development of the pricing principles in the Rules and the GPS occurred concurrently in the period of the establishment of the Electricity Commission. The Ministry for Economic Development consulted on pricing principles as part of the consultation on the draft GPS[16].

2.4 Interpretation of the statutory objective

2.4.1 The Authority has a single statutory objective: to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers[17]. The Authority has recently published its interpretation of the statutory objective - http://www.ea.govt.nz/document/12803/download/about-us/documents-publications/foundation-documents/.

2.4.2 In summary, the Authority interprets its statutory objective as requiring it to exercise its functions in section 16 of the Act in ways that, *for the long-term benefit of electricity consumers*:

- facilitate or encourage increased competition in the markets for electricity and electricity-related services, taking into account long-

13 Refer section 17 of the Act. The Authority is required to "*have regard to any statements of government policy*" that the Minister issues concerning the industry. The most recent government policy statement (GPS) has been withdrawn and hence this requirement has no material effect at this point in time.

14 The Code amendment principles are relevant to the development and approval of the TPM because this involves a Code amendment whereas preparation of the guidelines does not. The Code amendment principles do not however have the same legal status as the statutory objective.

15 http://www.med.govt.nz/upload/13887/final.pdf

16 MED response can be found at http://www.med.govt.nz/upload/13906/submissions-summary.pdf

17 Refer section 15 of the Act

term opportunities and incentives for efficient entry, exit, investment and innovation in those markets;

- encourage industry participants to efficiently develop and operate the electricity system to manage security and reliability in ways that minimise total costs whilst being robust to adverse events; and
- increase the efficiency of the electricity industry[18] taking into account the transaction costs of market arrangements and the administration and compliance costs of regulation, and taking into account Commerce Act implications for the non-competitive parts of the electricity industry, particularly in regard to preserving efficient incentives for investment and innovation..

2.4.3 Although the pricing principles are unchanged in the transition from the Rules to the Code, it is the application and interpretation of them under the new statutory objective that may have implications for the review. In particular, clause 12.80 requires Transpower and the Authority to resolve any conflicts in applying the pricing principles "with the objective of best satisfying the Authority's statutory objective in section 15 of the Act".

2.5 Decision to consult on a proposal to amend the Code

2.5.1 The Authority considers there are good reasons to consult on a proposal to amend the Code, including:

(a) There has been material change in circumstances since a review of the pricing principles was last considered and the decision made not to review them; the Act has created regulatory and institutional certainty and introduced a narrower statutory objective; and the Government Policy Statement on Electricity Governance dated May 2009 has been withdrawn.

(b) In light of the new statutory objective it is good regulatory practice to review the decision framework for the TPM, including the pricing principles.

(c) Submitters to previous consultations considered[19] that a review of the pricing principles was warranted because there was a clearly identified efficiency gain from amending the pricing principles and/or regulatory failure from the inconsistency of them and difficulties with respect to their application. The Authority accepts these points.

(d) The pricing principles create additional criteria to assess any proposed changes to the guidelines and TPM against and they are internally

[18] The Authority interprets 'electricity industry' to include all parties involved in the electricity industry and not just 'industry participants' as defined in the Act.

[19] See submissions on the stage 1 consultation paper - http://www.ea.govt.nz/our-work/consultations/transmission/tpr/submissions/ and on the stage 2 consultation paper http://www.ea.govt.nz/our-work/consultations/transmission/tpr-stage2options/submissions/.

inconsistent. This increases complexity without necessarily increasing the efficiency gains from the decision-making. The interface between the statutory objective, the guidelines and the pricing principles can be complex and unwieldy. Submissions on previous consultations indicate the majority of interested parties find the pricing principles problematic. This has resulted in a lack of confidence in the decision framework for the guidelines and the TPM.

In the Authority's view there is sufficient justification for a review of the regulatory framework.

Q1. Do you agree there is sufficient reason to review the regulatory framework? If not, why not?

2.6 Process going forward

2.6.1 The Issues Paper was expected to be completed by the end of 2010 but cannot be completed until this Code amendment proposal is complete. The Authority is not expecting to publish a final Issues Paper until June 2011 following the work of the Transmission Pricing Advisory Group. A delay in the publication of a possible Issues Paper is unlikely to impact on the implementation of a new TPM as even working within the original timeframes it is unlikely a new TPM could have been implemented for the pricing year commencing 1 April 2012.

2.6.2 The table below sets out the process for reviewing the pricing principles (including past steps) up until the point that a decision has been made on the Code amendment proposed in this paper.

Table 2 Process timetable

Review of pricing principles	
1. Informal discussion with the TPTG regarding the proposed Code amendment.	7 December 2010
2. Draft Proposed Code Amendment paper including draft regulatory statement (this paper) to Board for review.	Board meeting 15 December 2010
3. Draft Proposed Code amendment paper including and draft regulatory statement to TPTG for review and discussion.	28 January 2011
4. Interpretation of statutory objective and Code Amendment Principles confirmed.	February 2011
5. Publish consultation paper on the proposed Code amendment and the regulatory statement.	14 February 2011

Review of pricing principles	
6. Deadline for submissions.	14 March 2011
7. Decision on possible Code amendment.	April 2011

2.6.3 Once the Code amendment process has concluded the Code prescribed processes for preparing the Issues Paper can commence.

3. Code amendment proposal

3.1 The Authority's proposed amendment – Option 1

3.1.1 The proposal is to remove the pricing principles from the Code and assess the consistency of any proposals relating to the guidelines and TPM against the Authority's statutory objective.

3.1.2 The proposed Code amendments giving effect to this are set out in Appendix A.

3.2 Statement of the objectives of the code amendment proposal

3.2.1 The objectives of the proposal are to:

(a) Simplify the decision framework for developing and evaluating the guidelines and the TPM.

(b) Reduce transaction costs for the Authority and interested parties in formulating the guidelines and the TPM.

(c) Remove superfluous regulation and simplify the Code.

(d) Recognise and reflect the Authority's narrower statutory objective.

Q2. Do you agree with the objectives? If not, why not? Are there other objectives that should be included in the assessment?

3.3 Alternative means of achieving the objectives of the proposed amendment

3.3.1 The Authority has considered two alternative means for achieving its objectives:

(a) Option 2—Confirm the existing pricing principles. This option requires no Code amendment.

(b) Option 3—Introduce new pricing principles to reflect the new statutory objective. This would require a Code amendment.

3.4 Assessment criteria

3.4.1 The Authority has assessed the options against the evaluation criteria set out in the Code amendment principles (CA principles)[20] and the objectives of the proposal. From the outcome of this assessment, the options are then ranked.

[20] Refer Appendix C for the full set of Code amendment principles.

3.4.2 The CA principles reflect the Authority's statutory objective and matters set out in the Act[21]. For the purposes of this consultation the most relevant CA principles are:

CA principle 1 - Lawfulness and consistency with the Act (and therefore consistent with the Authority's statutory objective and its obligations under the Act).

CA principle 2 - Clearly identified efficiency gain or market or regulatory failure.

CA principle 3 - Quantitative assessment of the long-term net benefits to consumers.

3.4.3 CA principle 1 - The most significant element of CA principle 1 is consistency with the statutory objective. The options are tested against the three limbs of the statutory objective: competition, reliable supply and efficient operation with reference to the Authority's published statement on the statutory objective.

3.4.4 CA principle 2 - The Authority will only consider using the Code to regulate market activity when:

(a) it can be demonstrated that enhancements to the Code will improve efficiency[22] of the electricity industry for the long-term benefit of consumers;

(b) market failure is clearly identified, such as may arise from market power, externalities, asymmetric information and prohibitive transaction costs; or

(c) a problem is created by the existing Code, requiring amendment, or the way in which the Code is applied.

3.4.5 CA principle 3 – Quantitative cost benefit analysis[23] will be used to assess long-term net benefits for consumers although recognising that such analysis will not be possible in every case. This approach also means that competition and reliability limbs are assessed solely in regard to their economic efficiency effects. The assessment will include sensitivity analysis when there is uncertainty about key parameters.

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[21] Section 32(1) of the Act states that "The Code may contain any provisions that are consistent with the objective of the Authority and are necessary or desirable to promote any or all of the following: (a) competition in the electricity industry: (b) the reliable supply of electricity to consumers: (c) the efficient operation of the electricity industry: (d) the performance by the Authority of its functions: (e) any other matter specifically referred to in this Act as a matter for inclusion in the Code.

[22] Where efficiency refers to allocative, productive and dynamic efficiency, and improvements to efficiency include for example, a reduction in transaction costs or a reduction in the scope for disputes between industry participants.

[23] Disclosure will include key assumptions and sensitivities.

4. Description and analysis of the options

4.1 Option 1 - Remove the pricing principles from the Code and make consequential amendments

Description

4.1.1 The proposal is to:

(a) Remove the pricing principles from the Code and making consequential amendments.

(b) Include a new clause 12.79 which refers to the statutory objective.

(c) Remove clause 12.80 containing the application and interpretation provisions for the pricing principles.

4.1.2 Removal of the pricing principles:

(a) Should provide greater clarity in the evaluation criteria for developing the guidelines and the TPM;

(b) Is likely to reduce the transaction costs for the Authority and interested parties in formulating the guidelines and the TPM, including the avoidance of disputes over the meaning of the pricing principles and their relationship with the statutory objective;

(c) Would simplify the Code and eliminate unnecessary regulation; and

(d) Would be consistent with the narrower focus of the Authority's statutory objective.

Analysis of Option 1

Code Amendment Principle 1: Lawfulness

Option 1 is lawful as the Authority can remove the pricing principles consistent with its statutory objective and other requirements of the Act.

Provisions of the Act (excluding section 15)

Option 1 is materially consistent with the provisions of the Act and the obligations imposed on the Authority by the Act.

Statutory objective

Consistency with competition limb

A change to the existing decision framework for the TPM including removing the pricing principles should be largely neutral with respect to competition. The absence of pricing principles should not in itself result in a TPM that is discriminatory or creates barriers to competition.

The requirement to consider the impact on competition from the form of the TPM remains. Any guidelines issued would be required to be consistent with the competition limb of the statutory objective.

Consistency with reliable supply limb

A change to the existing decision framework for the TPM that includes removing the pricing principles should be marginally positive with respect to reliability.

The greater regulatory certainty created by the removal of the pricing principles is more likely to promote investment and contribute to a more robust system than retention or amendment of the pricing principles.

Consistency with efficient operation limb

The removal of the pricing principles should be neutral to positive with respect to efficient operation. While the existing principles and the revised principles are generally consistent with the efficient operation limb, they will not contribute in a meaningful way to the development of a more efficient TPM.

The efficient operation limb is sufficiently broad to require the Authority to consider practical considerations, transaction costs, consistency and certainty to the development and approval of the guidelines and the TPM as is currently required by clause 12.80. In any analysis of the efficient operation impacts of proposals, practical considerations, transactions costs and the

costs associated with a lack of consistency and certainty are considered. The retention of these additional criteria is at best duplication and at worst creates confusion about whether these are additional considerations to what would be normally evaluated when considering the efficient operation of a proposal.
Code Amendment Principle 2: Clearly identified efficiency gain or market or regulatory failure
The debate surrounding the pricing principles is *prima facie* evidence that there is some form of regulatory failure. The effort required in reconciling the pricing principles to the new objective and the guidelines appears to be non-productive. It provides minimal additional benefit than that already provided by the Authority's interpretation of its statutory objective and has the potential to provoke disputes, especially if participants consider the Authority has extended its remit with respect to the proper function of the TPM. The meaning and application of the pricing principles should not be the focus of the industry and the regulator per se. The principal gain from the proposed option is the greater regulatory certainty from having a single evaluative approach rather than multiple criteria that have to be interpreted and applied consistently. The opportunity for misinterpretation and/or wrongful extension of what is being sought (over and above an efficient allocation methodology for a pre-determined revenue requirement) is increased by the retention of the pricing principles in the assessment framework.
Code Amendment Principle 3: Quantitative assessment of the long-term net benefits to consumers
This is addressed in section 5.
Code amendment objective # 1: Simplifies the decision framework
The proposal simplifies the decision framework by removing an additional layer of criteria to assess the guidelines and TPM against.
Code amendment objective # 2: Reduce transaction costs in formulating the guidelines and the TPM
The proposal reduces the Authority's costs by negating the need to maintain consistency with past decision-making with respect to the application of the pricing principles, and to ensure where, where this deviates participants are made aware of the change. The proposal reduces other parties' costs involved in monitoring and responding to the Authority's approach.
Code amendment objective # 3: Removes superfluous regulation and simplifies the Code
The proposal simplifies the Code to the extent that the pricing principles restate the intent of the statutory objective where this is clearly articulated in the Act.
Code amendment objective # 4: Consistency with narrower focus of the

Authority's statutory objective
The past application of the pricing principles encompassed more than that covered by the interpretation of the statutory objective e.g. fairness and sustainability were also considered. Removing the pricing principles and relying on the statutory objective and its interpretation removes any question of wider considerations that may be interpreted from the current pricing principles.

Q3.	**Do you agree with the assessment of option 1? If not, why not?**

4.2 Option 2 – Confirm existing pricing principles, no Code amendment (Status quo)

Description

4.2.1 This option requires no amendment to the Code. It relies on the pricing principles being materially consistent with the statutory objective. Previous interpretations of the pricing principles would provide a starting point for the Authority's analysis and decision-making but could be deviated from as the guidelines and TPM are developed over time.

4.2.2 The Code provides that in applying and interpreting the pricing principles, Transpower and the Authority must take into account practical considerations, transactions costs and the desirability of consistency and certainty.[24]

[24] Refer clause 12.80 of the Code. Historically these have been interpreted as follows:

Practical considerations - The practical considerations have historically been identified as:

(a) Difficulty for parties to game signals;

(b) Provides accurate signals;

(c) Provides predictable/stable signals;

(d) Provides effective signals;

(e) Results in a transparent and understandable calculation.

Transaction costs—these costs are initially considered in terms of the complexity of the resultant TPM. Greater complexity generally brings increased compliance costs, more expensive IT systems and disputes. These costs have to be balanced against the efficiency gains over the longer term from any changes and the potential for the changes to result in lower transaction costs as the complexity associated with implementation reduces as the methodology is bedded in.

Desirability of consistency and certainty - consistency means a similar approach with respect to the different components of the TPM, the assets, participants and decision making. Certainty means the desirability of regulation being stable and not changing frequently, suddenly or in unpredictable ways. Regulation is

4.2.3 The Code acknowledges that there may be conflict in applying the pricing principles and requires that such conflicts are resolved with the objective of "best satisfying the Authority's statutory objective".[25]

The pricing principles

4.2.4 The pricing principles in the Code are set out in clause 12.79(a) to (f):

(a) The costs of connection and use of system should as far as possible be allocated on a user pays basis;

(b) The pricing of new and replacement investments in the grid should provide beneficiaries with strong incentives to identify least cost investment options, including energy efficiency and demand management options;

(c) Pricing for new generation and load should provide clear locational signals;

(d) Sunk costs should be allocated in a way that minimises distortions to production/consumption and investment decisions made by grid users;

(e) The overall pricing structure should include a variable element that reflects the marginal costs of supply in order to provide an incentive to minimise network constraints;

(f) Transmission pricing for investment in the grid should recognise the linkages with other elements of market pricing (including the design of the financial transmission rights regime under subpart 5, and any revenues from financial transmission rights).

predictable and based on rational decision-making. The impact of regulatory changes on prices is also considered.

[25] Refer clause 12.80(2)

Analysis of Option 2

Code Amendment Principle 1: Lawfulness

Option 2 is lawful and is materially consistent with the Act.

The pricing principles contained in the Rules/Code were prepared under the Electricity Act 1992. The Rules were intended to give effect to the Commission's principal objectives and specific outcomes[26]. Although the Commission's principal objectives were wider than the Authority's statutory objective, the Commission considered economic efficiency as the most important criterion when making decisions.

However, the inclusion of fairness, sustainability and the specific outcomes relating to energy efficiency, demand-side management, climate change etc., was problematic, in that these concepts influenced the application of the pricing principles where there were conflicts. Notwithstanding the approach taken by the Commission under the previous framework, there was the potential to expand the coverage of the pricing principles to include fairness and sustainability and the specific outcomes mentioned above. This option is no longer available and would require past decisions to be reconsidered with respect to the new statutory objective.

Provisions of the Act (excluding section 15)

Option 2 is materially consistent with the provisions of the Act and the obligations imposed on the Authority by the Act.

Statutory Objective

Consistency with competition limb

The existing pricing principles are intended to support the development of an efficient TPM and thereby enhance competition. The debate and uncertainty around the pricing principles has not actively supported the development of an efficient TPM.

The Authority is keen that any initiatives with respect to transmission pricing do not create barriers for new entrants, innovation or relieve competitive pressure on participants, including reducing barriers to transmission alternatives. At the detailed level of the TPM, the previous interpretation of the pricing principles resulted in a TPM that was competition enhancing without being discriminatory (e.g. the deep definition of connection and prudent discount regime).

Consistency with reliable supply limb

The existing pricing principles are intended to support the development of an efficient TPM

[26] Refer section 172N, Electricity Act 1992.

and thereby enhance reliable supply.

The current pricing principles and their application may have provided insufficient regulatory certainty by failing to provide stable and predictable signals. Stable and predictable signals promote investment that will in turn enhance reliable supply. It is certainly the case that if regulatory certainty is measured by the degree of consensus on what the outcomes should be (e.g. guidelines), and the expectation that these outcomes will endure, then the pricing principles and their application has not provided certainty to promote investment. Conversely the certainty gained from removing the pricing principles may strengthen investor confidence.

Consistency with efficient operation limb

This is the most relevant limb of the statutory objective for evaluating the pricing principles. The Commission argued that its interpretation of the pricing principles promoted efficiency. Appendix D considers the historic interpretation and application of each pricing principle.

The historic interpretation required that the guidelines should address the ‘user pays’ approaches in clauses 12.79(a) and (c) to a greater extent than the ‘beneficiary pays’ approach in clause 12.79(b) or the ‘sunk cost’ approach in clause 12.79(d). The ‘beneficiary pays’ principle was thought likely to bring larger efficiency gains and fairer outcomes than achievable under a ‘sunk cost’ approach. This hierarchy has caused confusion in its application and will most likely continue to do so.

Code Amendment Principle 2: Clearly identified efficiency gain or market or regulatory failure

Submitters in previous consultations[27] and some members of the Transmission Pricing Technical Group have suggested the existing pricing principles are contradictory and confusing, requiring convoluted arguments to ensure any guidelines and TPM are consistent with them.

Submissions have argued this constitutes regulatory failure. The validity of this position can be debated, but it is problematic that there is no consensus over the meaning and application of the pricing principles.

The Authority notes that there has been a material change in circumstances, since the Commission made its decision not to review the pricing principles. Changes include:

(a) The Act has created sufficient regulatory and institutional certainty with respect to a reconsideration of the pricing principles.

(b) The narrower focus of the new statutory objective and the relative consensus

[27] See submissions on the stage 1 consultation paper - http://www.ea.govt.nz/our-work/consultations/transmission/tpr/submissions/ and on the stage 2 consultation paper http://www.ea.govt.nz/our-work/consultations/transmission/tpr-stage2options/submissions/.

on the interpretation of the statutory objective.

(c) Withdrawal of the Government Policy Statement on Electricity Governance dated May 2009.

(d) A recognition that a review of the ongoing relevance of the pricing principles will not delay the final implementation date for the TPM as implementation of a new TPM cannot realistically occur until April 2013.

(e) Continued debate about the meaning and relevance of the pricing principles and the regulatory framework in general.

The pricing principles create additional criteria to assess any proposed changes to the guidelines and TPM against. Complexity of decision making is increased without corresponding efficiency gains. The interface between the statutory objective, the guidelines and the current pricing principles can be complex and unwieldy and the lack of consensus around the pricing principles is a demonstrable regulatory failure.

Code Amendment Principle 3: Quantitative assessment of the long-term net benefits to consumers

This is addressed in section 5**.**

Code amendment objective # 1: Simplifies the decision framework

The proposal is not a simplification relative to the two alternatives. It requires revisiting the past decisions and assessing the application of the pricing principles with respect to the new statutory objective.

Code amendment objective # 2: Reduce transaction costs in formulating the guidelines and the TPM

The proposal increases the Authority's costs by requiring the Authority to revisit the Commission's interpretation and application of the pricing principles. It would also need to demonstrate how past decisions with respect to the application of the pricing principles remain valid or need to be altered given the new statutory objective. However, given that these decisions are documented, the costs are less than revising the principles.

Code amendment objective # 3: Removes superfluous regulation and simplifies the code

To the extent the current pricing principles are aligned to the statutory objective and its interpretation, their usefulness is negligible.

Code amendment objective # 4: Consistency with narrower focus of the Authority's statutory objective

The past application of the pricing principles encompassed more than that covered by the interpretation of the statutory objective and in some cases may not be consistent with the implied narrower focus of the Authority.

Q4.	**Do you agree with the assessment of option 2? If not, why not?**

4.3 Option 3 - Revise pricing principles

Description

4.3.1 This option requires a Code amendment to amend the pricing principles. There would be no further consequential amendments to the Code. The proposed revised pricing principles are closely aligned with the statutory objective.

4.3.2 The proposed revised pricing principles are:

(a) Ensure full recovery of Transpower's economic costs in providing transmission services.

(b) Promote competition by allocating costs of transmission services in a way that facilitates or encourages competition in the markets for electricity and electricity-related services taking into account long-term opportunities and incentives for efficient entry, exit, investment and innovation in those markets.

(c) Promote reliability by allocating costs of transmission services in a way that encourages market participants to efficiently develop and operate the electricity system to manage security and reliability in ways that minimise total cost whilst being robust to adverse events.

(d) Promote efficient operation which includes:

(i) where practicable charging the costs of connection to the connecting party (connection charges); and

(ii) where practicable providing locational signalling of long run transmission investment costs, to the extent that these are not already signalled by nodal prices, the regulatory investment test and connection charges;

or

(iii) where such locational signals are inefficient or only partially recover the balance of Transpower's economic costs not recovered by connection charges, these residual costs should be recovered in the least distortionary manner.

(e) Be transparent and enduring in a way that is broadly acceptable to stakeholders.

4.3.3 The principles described in 4.3.2(b) and 4.2.4(c) above are a close adaptation of the statutory objective but with specific reference to the cost allocation of transmission services. This provides an unambiguous link between the statutory objective and the Code and clarifies the application of the Code to the development of the TPM.[28]

4.3.4 Clause 12.80 provides that in applying the pricing principles, Transpower and the Authority must take into account practical considerations, transactions costs and the desirability of consistency and certainty.

4.3.5 The Authority proposes that the interpretation and application of the considerations in paragraph 12.80 be interpreted as they were by the Commission under the Rules.

Analysis of Option 3

Code Amendment Principle 1: Lawfulness
Option 3 is lawful as the Authority can amend the pricing principles subject to complying with the statutory objective and other requirements in the Act. The revised pricing principles have been written to align very closely to the statutory objective to avoid inconsistencies. At a high level the revised principles are intended to translate the statutory objective to the context of the TPM. **Provisions of the Act (excluding section 15)** Option 3 is materially consistent with the provisions of the Act and the obligations imposed on the Authority by the Act. **Statutory Objective** The specificity in the pricing principle dealing with efficient operation reflects the importance of efficient operation as a decision criterion. This compares with those principles dealing with competition and reliability which are of a more general nature. The revised principles reflect the non-competitive nature of the provision of transmission services and are therefore focussed on: (a) increasing the efficiency of the sector, taking into account the transaction costs of market arrangements, the costs of regulation and Commerce Act implications whilst preserving efficient incentives for investment and innovation; and

[28] There is a view that the close alignment between the statutory objective and the revised pricing principles means there is little practical difference between options 1 and 2, except that option 1 provides the Authority with greater discretion to alter its interpretation of how the statutory objective applies to transmission pricing. The Authority does not agree with this position. In its experience where there are different descriptions of similar concepts, the different wording inevitably gives rise to debate about interpretations. Although the Authority's interpretation of the statutory objective is not a rule or part of the Code, the Authority considers its interpretation to be one of its foundation documents. Changes to the views set out in that document would not be made lightly or without consultation.

(b) economy-wide benefits when evaluating the long-term benefit to consumers. The long term focus means the Authority needs to take into account efficiency effects that may arise from measures that create large wealth transfers or that are potentially time-inconsistent.

Consistency with competition limb

Any impact on workable competition from the decision framework for the guidelines and the TPM, including the pricing principles, is likely to be negligible. However, the revised pricing principles include a principle that seeks to promote competitive outcomes in recognition that the TPM has a role in supporting competition and enabling the entry of new participants by promoting regulatory certainty, consistency, transparency and optimising transaction costs.

Consistency with reliable supply limb

The revised pricing principles are intended to support the development of an efficient TPM and thereby enhance reliable supply.

The extent to which the regulatory framework, including the revised pricing principles, is consistent with the objectives underlying the reliable supply limb is limited to:

(a) promoting the correct allocation of risk so participants respond appropriately;

(b) supporting revenue adequacy for and timely investment by Transpower or developers of transmission alternatives;

(c) promoting regulatory certainty and its consequential positive impact on dynamic efficiency; and

(d) by providing stable and predictable signals this should promote investment and contribute to a more robust system.

The revised pricing principles are consistent with the underlying objective of the reliable supply limb, in that they should, in concert with other incentives, assist in avoiding the costs of supply interruptions and quality degradation and the costs caused by under-investment arising from investor uncertainty.

The revised pricing principles seek to minimise the costs of reliable supply due to obtaining transmission and/or alternatives to cover short- and long-term risks in the power system (resource costs). (Refer revised pricing principles d(ii) and (iii))

The revised pricing principles promote reliable supply for the long-term benefit of consumers by seeking to achieve an efficient level of reliability, which occurs when the total of avoided costs and resource costs are minimised.

Consistency with efficient operation limb

The revised pricing principles are generally consistent with the efficient operation limb. The specific principle dealing with efficient operation (d) is consistent because it promotes economic efficiency by ensuring the guidelines and TPM:

(a) Provide efficient signals so that total system costs are minimised in the long-term;

(b) Supports cost reflective pricing and where users can be identified practically allocate the cost to those users;

(c) Supports locational signalling of long run transmission investment costs, to the extent that these are not already signalled by nodal prices, the regulatory investment test and connection charges; or

(d) Where such locational signals are inefficient or only partially recover the balance of Transpower's economic costs not recovered by connection charges, these residual costs should be recovered in the least distortionary manner.

The interpretation of the statutory objective acknowledges efficiency effects may arise from measures that create large wealth transfers or that are not durable because of the difficulty in obtaining consensus. Pricing principle (e) supports this by requiring that the guidelines and TPM be transparent and enduring in a way that is broadly acceptable to stakeholders.

Code Amendment Principle 2: Clearly identified efficiency gain or market or regulatory failure

Submissions to the Commission[29] contended that there was regulatory failure because of the difficulty interpreting the pricing principles due to the contradictory and confusing language. Submitters also suggested that the pricing principles should be reviewed given the change to the statutory objective.

There are efficiency gains from more closely aligning the pricing principles with the statutory objective and reducing internal inconsistencies. The revised pricing principles seek to do this. However, the gain may be small as reliance on the statutory objective alone may be sufficient to achieve the efficiency gains. The gain may be more significant when the revised pricing principles are compared against the existing pricing principles.

[29] See references in footnote 17.

Code Amendment Principle 3: Quantitative assessment of the long-term net benefits to consumers
This is addressed in section 5.
Code amendment objective # 1: Simplifies the decision framework
The proposal assists with simplifying the decision framework by aligning this additional layer of criteria for assessment of the guidelines and TPM with the statutory framework.
Code amendment objective # 2: Reduce transaction costs in formulating the guidelines and the TPM
The proposal increases the Authority's costs by requiring the Authority to provide a new interpretation for the revised pricing principles, alongside and consistent with the interpretation of the statutory objective. Because both the current and the revised pricing principles address concepts of economic efficiency inevitably the Authority would also need to demonstrate how past decisions with respect to the application of the pricing principles remain valid or need to be altered given the new pricing principles. This alignment process would not be necessary if there were no pricing principles with any proposed TPM to be evaluated only against the statutory objective. The situation is analogous to the suspension of the GPS. An amended GPS would require a reconciliation process as described above. The removal rather than replacement negates the need for explanations about how and to what extent the new principles may be applied differently. The consideration of this assessment would have a consequential impact on interested parties' costs.
Code amendment objective # 3: Removes superfluous regulation and simplifies the code
To the extent the revised pricing principles are aligned to the statutory objective and its interpretation, their usefulness is negligible. The impact of the revised principles on how simple the Code versus the status quo is neutral.
Code amendment objective # 4: Consistency with narrower focus of the Authority's statutory objective
The pricing principles have been formulated to be consistent the Authority's statutory objective.

Q5.	**Do you agree with the assessment of option 3? If not , why not (e.g. if there are more appropriate principles)**

5. Assessment of the costs and benefits of the options

5.1.1 The proposal is to remove the pricing principles from the Code and to make consequential amendments. Decisions about the guidelines and the TPM would be made with reference to the statutory objective and any other relevant parts of the Act..

5.1.2 The benefits and costs of the proposal are assessed relative to two alternatives. Table 3 and Table 4 set out a high level assessment of the three options against the CA principles and the objectives of the proposed code amendment.

Table 3 Comparison table of costs/benefits

	Option 1 (Proposal)	**Option 2 (Status quo)**	**Option 3 (Revised principles)**
Analysis against the CA principles			
Lawfulness	✓	✓	✓
Consistency with competition limb (statutory objective)	✓	✓	✓
Consistency with reliable supply limb (statutory objective)	✓✓	✗	✓
Consistency with efficient operation limb (statutory objective)	✓✓	✓	✓✓
Mitigates regulatory failure	✓✓	✗	✓
Analysis against objectives of the Code amendment			
Simplifies the decision framework for developing the guidelines and the TPM.	✓✓	✗	✓
Reduces transaction costs for the Authority and interested parties in formulating the guidelines and the TPM.	✓	✗	✗✗
Removes superfluous regulation and simplifies the Code.	✓	✗	✗
Consistency with narrower focus of the Authority's statutory objective	✓	✗✗	✓

Benefits/costs analysis

5.1.3 The Authority considers that in this case it is practicable to both undertake a qualitative and quantitative analysis of the costs and benefits of the proposal compared to the two alternatives. The Authority has therefore considered firstly the costs and benefits of the proposal and the two alternatives in qualitative terms set out in Table 3 above.

5.1.4 The qualitative assessment can be summarised as follows:

Benefits

5.1.5 The three primary benefits of the proposal are:

(a) eliminating an evaluation layer in the decision framework for the TPM provides greater regulatory certainty than the two alternatives. Greater regulatory certainty is likely to promote dynamic efficiency and a more robust electricity system;

(b) eliminating an evaluation layer in the decision framework for the TPM reduces transaction costs as compared to the two alternatives. It is likely to make the resultant TPM more durable and hence avoid the costly exercise of reviewing the TPM by extending the date before a further review is most likely required; and

(c) increased transparency of the decision-making due to the analysis having a simpler evaluation framework.

Costs

5.1.6 The costs for both the regulator and participants can be considered as:

(a) Transition cost. It is expected that Code change process for removing the pricing principles will be relatively straight forward in contrast to the process for amending the principles which may be quite time consuming to finalise a set of revised principles. Although the status quo does not involve a Code change process there will be a requirement to revisit the application and interpretation of the existing pricing principles given the new statutory objective. The transition cost of the proposal may therefore be equivalent to that of the status quo, but lower than the option of revising the principles.

(b) On-going costs. The proposal should result in fewer disputes relative to the two alternatives because of the simplified decision framework for developing and evaluating the guidelines and the TPM. Previous debate around the interpretation and application of the pricing principles to the guidelines and the TPM has been costly and time consuming. Hence the costs of disputes from options 2 and 3 should be relatively higher than option 1.

5.1.7 A quantitative cost benefit analysis was undertaken and the results support the above qualitative analysis. Dynamic efficiency costs (attributable to less efficient and/or delayed investment and reduced robustness of the system) were not estimated but could be many times greater than the costs associated with the more measurable variables calculated. However, as the dynamic efficiency gains result from reducing the complexity of the Code, estimating these gains would increase the net benefit of the proposal against the alternatives. These impacts are qualitatively described in the analysis sections and relate to the consistency of the options against the competition, reliability and efficiency limbs of the statutory objective.

5.1.8 The table below sets out a simple quantitative assessment of the costs and benefits of the proposal and the two options. The costs and benefits are expressed relative to option 2 which is treated as the counterfactual as it is the status quo.

5.1.9 The base case cost is compared against two sensitivity cases:

(a) The base case assumes

(i) that there is 25% probability of a judicial review if options 2 and 3 are implemented but zero for the proposal;

(ii) Code amendments are necessary for options 1 and 3 but not for the status quo. The cost of the Code amendments is higher for revising the principles than deleting them from the Code;

(iii) transaction costs are zero for the proposal but are higher for option 3 relative to option 2.

(b) The assumptions for Sensitivity 1 are:

(i) the probability of a judicial review is 10% if options 2 and 3 are implemented but zero for the proposal;

(ii) the proposition is the same as the base case but cost of code amendment is 25% higher;

(iii) the proposition is the same as the base case but transaction costs are 50% lower.

(c) The assumptions for Sensitivity 2 are:

(i) there is no judicial review risk with any of the options;

(ii) the proposition is the same as the base case but the code amendment is 50% lower;

(iii) the proposition is the same as the base case but transaction costs are 100% higher.

Table 4 Quantitative Cost/benefit analysis

	Option 1 proposal ($thousands)	**Option 2 (status quo) ($thousands)**	**Option 3 (revised principles) ($thousands)**
Benefit: Reduced risk of judicial review (disputed	150	0	0

decision)			
Benefit: reduced transaction costs	96	0	0
Cost of code change	(56)	0	(112)
Increased transaction costs	0	0	(106)
Total Base Case: Net Benefit	**190**	**0**	**(218)**
Total Sensitivity 1: Net Benefit	**38**	**0**	**(409)**
Total Sensitivity 2: Net Benefit	**62**	**0**	**(652)**

Assumptions for Base Case	
The probability of a judicial review is 25%	
Cost of judicial review	
EA costs based on average previous judicial reviews (includes legal fees, administration costs - discovery, briefing legal, Board reports)	300
Estimate of litigant costs	300
Cost of code change	
Cost of code change - delete principles	
2 FTEs (contractor rates) for 1 week (@contractor rate)	16
15 FTEs for 0.5 of a week for market participants (includes legal review)	30
Legal review for EA	10
Cost of code change - amend principles	
2 FTEs for 2 weeks	32
15 FTEs for 1 week for market participants (includes legal review)	60
Legal review for EA	20
Transaction costs	
Status Quo	

The costs relate to the Authority having to revisit the Commission's interpretation and application of the pricing principles. It would also need to demonstrate how past decisions with respect to the application of the pricing principles remain valid or need to be altered given the new statutory objective. However, given that these decisions are documented, the costs are less than revising the principles.	
1 FTE for 2 weeks for EA (@ contractor rate)	16
30 FTEs for 1 week for market participants (includes legal review)	60
Legal review for EA	20
Revised Principles	
The costs relate to the Authority having to provide a new interpretation for the revised pricing principles, alongside and consistent with the interpretation of the statutory objective. Because both the current and the revised pricing principles address concepts of economic efficiency inevitably the Authority would also need to demonstrate how past decisions with respect to the application of the pricing principles remain valid or need to be altered given the new pricing principles. The consideration of this assessment would have a consequential impact on interested parties' costs.	
2 FTE for 2 weeks for EA (@contractor rates)	32
30 FTEs for 2 weeks for market participants (includes legal review)	120
Legal review for EA	50
Assumptions for sensitivity analysis	
Sensitivity 1	
The probability of a judicial review is 10%	
Cost of code change is 25% higher	
Transaction costs are 50% lower	
Sensitivity 2	
No judicial review	
Cost of code change is 50% lower	
Transaction costs are 100% higher	

Conclusion

5.1.10 Overall, the proposal has a higher net benefit than the two alternatives.

Q6.	**Do you agree that option 1 has a net benefit than the two alternatives? If not, why not?**

6. Summary of questions

Q1. Do you agree there is sufficient reason to review the regulatory framework? If not, why not?

Q2. Do you agree with the objectives? If not, why not? Are there other objectives that should be included in the assessment?

Q3. Do you agree with the assessment of option 1? If not, why not?

Q4. Do you agree with the assessment of option 2? If not, why not?

Q5. Do you agree with the assessment of option 3? If not , why not (e.g. if there are more appropriate principles)

Q6. Do you agree that option 1 has a net benefit than the two alternatives? If not, why not?

Appendix A Code Amendment

Final

Subpart 4—Transmission pricing methodology

12.77 Recovery of investment costs by Transpower
The costs incurred by **Transpower** (irrespective of when they are incurred) in relation to an **approved investment** are recoverable by **Transpower** from **designated transmission customers** on the basis of **the transmission pricing methodology** and must be paid by **designated transmission customers** accordingly.
Compare: Electricity Governance Rules 2003 rule 17.1 section III part F

12.78 Purpose for establishing transmission pricing methodology
The purpose of the **transmission pricing methodology** is to ensure that, subject to Part 4 of the Commerce Act 1986, the full economic costs of **Transpower's** services are allocated in accordance with the statutory objective referred to in clause 12.79.
Compare: Electricity Governance Rules 2003 rule 1 section IV part F

12.79 Statutory objective
Transpower, in developing the **transmission pricing methodology**, and the **Authority,** in approving the **transmission pricing methodology** must assess the transmission pricing methodology against the Authority's statutory objective in section 15 of the Act.
Compare: Electricity Governance Rules 2003 rule 2 section IV part F

12.80 Authority must prepare an issues paper
The **Authority** must prepare an issues paper on: the guidelines to be used by **Transpower** in preparing a methodology for allocating **Transpower's** revenues to **designated transmission customers**; and the process for the development and approval of the **transmission pricing methodology.** The guidelines and the process will be developed in accordance with the statutory objective referred to in clause 12.79.
Compare: Electricity Governance Rules 2003 rule 4 section IV part F

12.81 Authority must consult on issues paper
(1) When the **Authority publishes** the issues paper, the **Authority** must notify **registered participants** of the date by which submissions are to be received by the **Authority**. The date must be no earlier than 15 **business days** from the date of **publication** of the issues paper.
(2) Each submission on the issues paper must be made in writing to the **Authority** and received on or before the **submission expiry date**. In addition to receiving written submissions, the **Authority** may elect to hear one or more oral submissions.
(3) Within 20 **business days** of the **submission expiry date** (or such longer period as the **Authority** may allow), the **Authority** must complete its consideration of all submissions it receives on the issues paper.
Compare: Electricity Governance Rules 2003 rule 5 section IV part F

12.82 Authority must publish process and guidelines for development of transmission pricing methodology
After consideration of submissions in clause 12.81(3), the **Authority** must, as soon as reasonably practicable, **publish**—

(a) the process for the development of the **transmission pricing methodology**; and
(b) any guidelines that Transpower must follow in developing the **transmission pricing methodology**.
Compare: Electricity Governance Rules 2003 rule 6 section IV part F

Development of transmission pricing methodology by Transpower

12.83 A Transmission pricing methodology
The **transmission pricing methodology** that applies at the commencement of this Code is the **transmission pricing methodology** in Schedule 12.4.

Review of an approved transmission price methodology

12.84 Review by Transpower
At any time, **Transpower** may submit to the **Authority** a proposed variation of its **transmission pricing methodology**, provided that the submission is made at least 12 months after the last **Authority** approval of the **transmission pricing methodology**.
Compare: Electricity Governance Rules 2003 rule 11.1 section IV part F

12.85 Review by the Authority
The **Authority** may review an approved **transmission pricing methodology** if it considers that there has been a material change in circumstances.
Compare: Electricity Governance Rules 2003 rule 11.2 section IV part F

12.86 Process for review
A review of the **transmission pricing methodology** must take into account the requirements of clauses 12.79 and 12.88(1). The **Authority** must follow the processes outlined in clauses 12.90 to 12.93 when reviewing a **transmission pricing methodology**.
Compare: Electricity Governance Rules 2003 rule 11.3 section IV part F

12.87 Transpower to submit methodology
(1) **Transpower** must submit a proposed **transmission pricing methodology** to the **Authority** within 90 days (or such longer period as the **Authority** may allow) of receipt of a written request from the **Authority**.
(2) The **Authority** may, after **publishing** the process described in clause 12.82(a) and the guidelines described in clause 12.82(b), issue such a request.
Compare: Electricity Governance Rules 2003 rule 7.1 section IV part F

12.88 Form of proposed transmission pricing methodology
(1) **Transpower** must develop its proposed **transmission pricing methodology** consistent with—
(a) any determination made under Part 4 of the Commerce Act 1986; and
(b) the statutory objective referred to in clause 12.79; and
(c) any guidelines **published** under clause 12.82(b).
(2) **Transpower's** proposed **transmission pricing methodology** must include indicative prices to allow the **Authority** and interested parties to understand the impact of the methodology on **designated transmission customers**.
Compare: Electricity Governance Rules 2003 rule 7.2 section IV part F

12.89 Authority may decline to consider proposed transmission pricing methodology
(1) The **Authority** may decline to consider the proposed **Transpower transmission pricing methodology** if, in the **Authority's** view, **Transpower** has not provided sufficient information for the **Authority** to make an informed assessment of the matters referred to in clauses 12.91 to 12.94.

(2) If the **Authority** so declines, the **Authority** must advise **Transpower** of the extra information required, and **Transpower** must provide a revised **transmission pricing methodology** by a date specified by the **Authority**.
Compare: Electricity Governance Rules 2003 rule 7.3 section IV part F

Process for determination of transmission pricing methodology

12.90 Authority may approve proposed transmission pricing methodology or refer back to Transpower
(1) After consideration of **Transpower's** proposed **transmission pricing methodology**, the **Authority** may either—
(a) approve the proposed **transmission pricing methodology** having regard to the requirements of clause 12.88(1); or
(b) refer the proposed **transmission pricing methodology** back to **Transpower** if in the **Authority's** view the proposed **transmission pricing methodology** does not adequately conform to the requirements of clause 12.88(1) and **Transpower** will have 20 **business days** to consider the **Authority's** concerns and to resubmit its proposed **transmission pricing methodology** for consideration by the **Authority**.
(2) If the **Authority** considers that the **transmission pricing methodology** resubmitted by **Transpower** under subclause (1)(b) does not conform to the requirements of clause 12.88(1), the **Authority** may make any amendments it considers necessary to ensure that the proposed **transmission pricing methodology** adequately conforms to the requirements of clause 12.88(1).
Compare: Electricity Governance Rules 2003 rule 8.1 section IV part F

12.91 Authority must publish proposed transmission pricing methodology
(1) The **Authority** must **publish** the proposed **transmission pricing methodology** as soon as practicable.
(2) At the time the **Authority publishes** the proposed **transmission pricing methodology** the **Authority** must notify **registered participants** of the date by which submissions are to be received by the **Authority**. The date must be no earlier than 15 **business days** from the date of **publication** of the proposed **transmission pricing methodology**.
(3) Each submission on the proposed **transmission pricing methodology** must be made in writing to the **Authority** and received on or before the **submission expiry date**. In addition to receiving written submissions, the **Authority** may elect to hear 1 or more oral submissions.
Compare: Electricity Governance Rules 2003 rules 8.2 and 8.3 section IV part F

12.92 Decision on transmission pricing methodology
Within 40 **business days** of the **submission expiry date** (or such longer period as the **Authority** may allow), the **Authority** must complete its consideration of all submissions it receives on a proposed **transmission pricing methodology** and consider whether to include the **transmission pricing methodology** in a schedule to this Part and, if so, the date that the **transmission pricing methodology** will take effect.
Compare: Electricity Governance Rules 2003 rule 8.4 section IV part F

12.93 Authority to determine commencement date
In determining a date on which the **transmission pricing methodology** must take effect, the **Authority** must consult with **Transpower**.
Compare: Electricity Governance Rules 2003 rule 8.5 section IV part F

Application of approved transmission pricing methodology

12.94 Charges to comply with approved transmission methodology

(1) Except for the **input connection contracts**, **new investment agreement contracts**, and **notional embedding contracts**, and subject to subclause (2), **Transpower** must charge for those transmission services affected only in accordance with the approved **transmission pricing methodology**.

(2) **Transpower** may impose charges additional to those set out in the **transmission pricing methodology** if those charges are provided for in the **Rio Tinto agreements**.

Compare: Electricity Governance Rules 2003 rule 9.1 section IV part F

12.95 Development of transmission prices

After approval of the **transmission pricing methodology**, **Transpower** must—

(a) develop and **publish** transmission prices consistent with the **transmission pricing methodology** based on its total revenue requirement for connection to or use of the **grid**; and

(b) demonstrate to the **Authority** that the prices are consistent with the **transmission pricing methodology**.

Compare: Electricity Governance Rules 2003 rule 9.2 section IV part F

Audit of transmission prices

12.96 Audit of transmission prices

(1) The **Authority** may appoint an **auditor** to confirm whether **Transpower's** transmission prices have been calculated in accordance with the **transmission pricing methodology**.

(2) The **auditor's** report must consider whether the application of the **transmission pricing methodology** by **Transpower** contains errors or inconsistencies that may have a material impact on the prices of any individual **designated transmission customers**, or **designated transmission customers** in general.

(3) **Transpower** must provide the **auditor** with all relevant information required by the **auditor** to complete its review.

Compare: Electricity Governance Rules 2003 rule 9.3 section IV part F

12.97 Transpower may respond to auditor's report

Transpower must be provided with the opportunity to respond in writing to the **auditor's** report within 15 **business days** of receiving the report, before the finalization of the **audit** report.

Compare: Electricity Governance Rules 2003 rule 9.4 section IV part F

12.98 Final auditor report to the Authority

(1) Within 10 **business days** after receipt of **Transpower's** response under clause 12.97, the **auditor** must report to the **Authority** certifying that either—

(a) **Transpower** had applied correctly the approved **transmission pricing methodology**; or

(b) material errors remained in the application by **Transpower** of the **transmission pricing methodology**.

(2) Within 5 **business days** of receiving the report, the **Authority** must **publish** the **auditor's** report.

Compare: Electricity Governance Rules 2003 rules 9.5 and 9.6 section IV part F

12.99 Transpower to redetermine transmission prices

If the **auditor** concludes that there are material errors in **Transpower's** application of the **transmission pricing methodology**, **Transpower** must recalculate and **publish** revised transmission prices to correct identified errors.

Compare: Electricity Governance Rules 2003 rule 9.7 section IV part F

12.100 Auditor's costs
Transpower must meet the actual and reasonable expenses of the **auditor**.
Compare: Electricity Governance Rules 2003 rule 9.8 section IV part F

12.101 Enforcement of transmission charges
(1) The approved **transmission pricing methodology** must be incorporated in **transmission agreements** between **Transpower** and **designated transmission customers**.
(2) The amount payable by a **designated transmission customer** under a **transmission agreement** under subclause (1)—
(a) is recoverable in any court of competent jurisdiction as a debt due to **Transpower**; and
(b) may be challenged in any proceedings to recover the debt on the ground that **Transpower** has incorrectly applied the **transmission pricing methodology** in a manner that is adverse to the **designated transmission customer** but the **transmission pricing methodology** itself may not be challenged.
Compare: Electricity Governance Rules 2003 rule 10 section IV part F

Marked-up Version

The following shows the proposed forgoing amendments to Subpart 4 of the Code. Changes are marked as follows:

Legend:
Insertion
~~Deletion~~
~~Moved from~~
Moved to
Style change
Format change
~~Moved deletion~~

Subpart 4—Transmission pricing methodology

12.77 Recovery of investment costs by Transpower
The costs incurred by **Transpower** (irrespective of when they are incurred) in relation to an **approved investment** are recoverable by **Transpower** from **designated transmission customers** on the basis of **the transmission pricing methodology** and must be paid by **designated transmission customers** accordingly.
Compare: Electricity Governance Rules 2003 rule 17.1 section III part F

12.78 Purpose for establishing transmission pricing methodology
The purpose of the **transmission pricing methodology** is to ensure that, subject to Part 4 of the Commerce Act 1986, the full economic costs of **Transpower's** services are allocated in accordance with the ~~principles set out~~statutory objective referred to in clause 12.79.
Compare: Electricity Governance Rules 2003 rule 1 section IV part F

12.79 ~~Pricing principles~~Statutory objective

~~The principles to be applied by~~ **Transpower**, in developing the **transmission pricing methodology**, and ~~by~~ the **Authority**, in approving the **transmission pricing methodology**~~, are as follows:~~

~~(a) the costs of connection and use of system should as far as possible be allocated on a user pays basis:~~

~~(b) the pricing of new and replacement investments in the **grid** should provide beneficiaries with strong incentives to identify least cost investment options, including energy efficiency and demand management options:~~

~~(c) pricing for new generation and load should provide clear locational signals:~~

~~(d) sunk costs should be allocated in a way that minimises distortions to production, consumption and investment decisions by **grid** users:~~

~~(e) the overall pricing structure should include a variable element that reflects the marginal costs of supply in order to provide an incentive to minimise network constraints:~~

~~(f) transmission pricing for investment in the **grid** should recognise the linkages with other elements of market pricing (including the design of the **financial transmission rights** regime under subpart 5, and any revenues from **financial transmission rights**).~~

~~Compare: Electricity Governance Rules 2003 rule 2 section IV part F~~

~~**12.80 Application and interpretation of pricing principles**~~

~~(1) In applying the pricing principles, **Transpower** and the **Authority** should take into account practical considerations, transaction costs, and the desirability of consistency and certainty. (2) If a conflict arises in applying the pricing principles set out in clause 12.79, the conflict should be resolved with the objective of best satisfying~~ must assess the transmission pricing methodology against the Authority's statutory objective in section 15 of the Act.

Compare: Electricity Governance Rules 2003 rule 2 ~~3~~ section IV part F

~~12.81~~12.80 Authority must prepare an issues paper

The **Authority** must prepare an issues paper on: the ~~process to be followed and~~ guidelines to be used by **Transpower** in preparing a methodology for allocating **Transpower's** revenues to **designated transmission customers** ~~in accordance with the pricing principles set out in clause 12.79, determine~~; and the process for the development and approval of the **transmission pricing methodology.** The guidelines and the process will be developed in accordance with the statutory objective referred to in clause 12.79.

Compare: Electricity Governance Rules 2003 rule 4 section IV part F

~~12.82~~12.81 Authority must consult on issues paper

(1) When the **Authority publishes** the issues paper, the **Authority** must notify **registered participants** of the date by which submissions are to be received by the **Authority**. The date must be no earlier than 15 **business days** from the date of **publication** of the issues paper.

(2) Each submission on the issues paper must be made in writing to the **Authority** and received on or before the **submission expiry date**. In addition to receiving written submissions, the **Authority** may elect to hear one or more oral submissions.

(3) Within 20 **business days** of the **submission expiry date** (or such longer period as the **Authority** may allow), the **Authority** must complete its consideration of all submissions it receives on the issues paper.

Compare: Electricity Governance Rules 2003 rule 5 section IV part F

~~12.83~~12.82 Authority must publish process and guidelines for development of transmission pricing methodology

After consideration of submissions in clause ~~12.82~~12.81(3), the **Authority** must, as soon as reasonably practicable, **publish**—

(a) the process for the development of the **transmission pricing methodology**; and

(b) any guidelines that Transpower must follow in developing the **transmission pricing methodology**.
Compare: Electricity Governance Rules 2003 rule 6 section IV part F

Development of transmission pricing methodology by Transpower

~~12.84~~12.83 A Transmission pricing methodology
The **transmission pricing methodology** that applies at the commencement of this Code is the **transmission pricing methodology** in Schedule 12.4.

Review of an approved transmission price methodology

~~12.85~~12.84 Review by Transpower
At any time, **Transpower** may submit to the **Authority** a proposed variation of its **transmission pricing methodology**, provided that the submission is made at least 12 months after the last **Authority** approval of the **transmission pricing methodology**.
Compare: Electricity Governance Rules 2003 rule 11.1 section IV part F

~~12.86~~12.85 Review by the Authority
The **Authority** may review an approved **transmission pricing methodology** if it considers that there has been a material change in circumstances.
Compare: Electricity Governance Rules 2003 rule 11.2 section IV part F

~~12.87~~12.86 Process for review
A review of the **transmission pricing methodology** must take into account the requirements of clauses 12.79 and ~~12.89~~12.88(1). The **Authority** must follow the processes outlined in clauses ~~12.91~~12.90 to ~~12.94~~12.93 when reviewing a **transmission pricing methodology**.
Compare: Electricity Governance Rules 2003 rule 11.3 section IV part F

~~12.88~~12.87 Transpower to submit methodology
(1) **Transpower** must submit a proposed **transmission pricing methodology** to the **Authority** within 90 days (or such longer period as the **Authority** may allow) of receipt of a written request from the **Authority**.
(2) The **Authority** may, after **publishing** the process described in clause ~~12.83~~12.82(a) and the guidelines described in clause ~~12.83~~12.82(b), issue such a request.
Compare: Electricity Governance Rules 2003 rule 7.1 section IV part F

~~12.89~~12.88 Form of proposed transmission pricing methodology
(1) **Transpower** must develop its proposed **transmission pricing methodology** consistent with—
(a) any determination made under Part 4 of the Commerce Act 1986; and
(b) the ~~pricing principles set out~~statutory objective referred to in clause 12.79~~ and their application and interpretation set out in clause 12.80~~; and
(c) any guidelines **published** under clause ~~12.83~~12.82(b).
(2) **Transpower's** proposed **transmission pricing methodology** must include indicative prices to allow the **Authority** and interested parties to understand the impact of the methodology on **designated transmission customers**.
Compare: Electricity Governance Rules 2003 rule 7.2 section IV part F

~~12.90~~12.89 Authority may decline to consider proposed transmission pricing methodology
(1) The **Authority** may decline to consider the proposed **Transpower transmission pricing methodology** if, in the **Authority's** view, **Transpower** has not provided sufficient information for the **Authority** to make an informed assessment of the matters referred to in clauses 12.91 to 12.94.

(2) If the **Authority** so declines, the **Authority** must advise **Transpower** of the extra information required, and **Transpower** must provide a revised **transmission pricing methodology** by a date specified by the **Authority**.
Compare: Electricity Governance Rules 2003 rule 7.3 section IV part F

Process for determination of transmission pricing methodology

~~12.91~~12.90 Authority may approve proposed transmission pricing methodology or refer back to Transpower
(1) After consideration of **Transpower's** proposed **transmission pricing methodology**, the **Authority** may either—
(a) approve the proposed **transmission pricing methodology** having regard to the requirements of clause ~~12.89~~12.88(1); or
(b) refer the proposed **transmission pricing methodology** back to **Transpower** if in the **Authority's** view the proposed **transmission pricing methodology** does not adequately conform to the requirements of clause ~~12.89~~12.88(1) and **Transpower** will have 20 **business days** to consider the **Authority's** concerns and to resubmit its proposed **transmission pricing methodology** for consideration by the **Authority**.
(2) If the **Authority** considers that the **transmission pricing methodology** resubmitted by **Transpower** under subclause (1)(b) does not conform to the requirements of clause ~~12.89~~12.88(1), the **Authority** may make any amendments it considers necessary to ensure that the proposed **transmission pricing methodology** adequately conforms to the requirements of clause ~~12.89~~12.88(1).
Compare: Electricity Governance Rules 2003 rule 8.1 section IV part F

~~12.92~~12.91 Authority must publish proposed transmission pricing methodology
(1) The **Authority** must **publish** the proposed **transmission pricing methodology** as soon as practicable.
(2) At the time the **Authority publishes** the proposed **transmission pricing methodology** the **Authority** must notify **registered participants** of the date by which submissions are to be received by the **Authority**. The date must be no earlier than 15 **business days** from the date of **publication** of the proposed **transmission pricing methodology**.
(3) Each submission on the proposed **transmission pricing methodology** must be made in writing to the **Authority** and received on or before the **submission expiry date**. In addition to receiving written submissions, the **Authority** may elect to hear 1 or more oral submissions.
Compare: Electricity Governance Rules 2003 rules 8.2 and 8.3 section IV part F

~~12.93~~12.92 Decision on transmission pricing methodology
Within 40 **business days** of the **submission expiry date** (or such longer period as the **Authority** may allow), the **Authority** must complete its consideration of all submissions it receives on a proposed **transmission pricing methodology** and consider whether to include the **transmission pricing methodology** in a schedule to this Part and, if so, the date that the **transmission pricing methodology** will take effect.
Compare: Electricity Governance Rules 2003 rule 8.4 section IV part F

~~12.94~~12.93 Authority to determine commencement date
In determining a date on which the **transmission pricing methodology** must take effect, the **Authority** must consult with **Transpower**.
Compare: Electricity Governance Rules 2003 rule 8.5 section IV part F

Application of approved transmission pricing methodology

~~12.95~~12.94 Charges to comply with approved transmission methodology
(1) Except for the **input connection contracts**, **new investment agreement contracts**, and **notional embedding contracts**, and subject to subclause (2), **Transpower** must charge for those transmission services affected only in accordance with the approved **transmission pricing methodology**.
(2) **Transpower** may impose charges additional to those set out in the **transmission pricing methodology** if those charges are provided for in the **Rio Tinto agreements**.
Compare: Electricity Governance Rules 2003 rule 9.1 section IV part F

~~12.96~~12.95 Development of transmission prices
After approval of the **transmission pricing methodology**, **Transpower** must—
(a) develop and **publish** transmission prices consistent with the **transmission pricing methodology** based on its total revenue requirement for connection to or use of the **grid**; and
(b) demonstrate to the **Authority** that the prices are consistent with the **transmission pricing methodology**.
Compare: Electricity Governance Rules 2003 rule 9.2 section IV part F

Audit of transmission prices

~~12.97~~12.96 Audit of transmission prices
(1) The **Authority** may appoint an **auditor** to confirm whether **Transpower's** transmission prices have been calculated in accordance with the **transmission pricing methodology**.
(2) The **auditor's** report must consider whether the application of the **transmission pricing methodology** by **Transpower** contains errors or inconsistencies that may have a material impact on the prices of any individual **designated transmission customers**, or **designated transmission customers** in general.
(3) **Transpower** must provide the **auditor** with all relevant information required by the **auditor** to complete its review.
Compare: Electricity Governance Rules 2003 rule 9.3 section IV part F

~~12.98~~12.97 Transpower may respond to auditor's report
Transpower must be provided with the opportunity to respond in writing to the **auditor's** report within 15 **business days** of receiving the report, before the finalization of the **audit** report.
Compare: Electricity Governance Rules 2003 rule 9.4 section IV part F

~~12.99~~12.98 Final auditor report to the Authority
(1) Within 10 **business days** after receipt of **Transpower's** response under clause ~~12.98,~~12.97, the **auditor** must report to the **Authority** certifying that either—
(a) **Transpower** had applied correctly the approved **transmission pricing methodology**; or
(b) material errors remained in the application by **Transpower** of the **transmission pricing methodology**.
(2) Within 5 **business days** of receiving the report, the **Authority** must **publish** the **auditor's** report.
Compare: Electricity Governance Rules 2003 rules 9.5 and 9.6 section IV part F

~~12.100~~12.99 Transpower to redetermine transmission prices
If the **auditor** concludes that there are material errors in **Transpower's** application of the **transmission pricing methodology**, **Transpower** must recalculate and **publish** revised transmission prices to correct identified errors.
Compare: Electricity Governance Rules 2003 rule 9.7 section IV part F

~~12.101~~12.100 Auditor's costs
Transpower must meet the actual and reasonable expenses of the **auditor**.
Compare: Electricity Governance Rules 2003 rule 9.8 section IV part F

~~12.102~~12.101 Enforcement of transmission charges

(1) The approved **transmission pricing methodology** must be incorporated in **transmission agreements** between **Transpower** and **designated transmission customers**.

(2) The amount payable by a **designated transmission customer** under a **transmission agreement** under subclause (1)—

(a) is recoverable in any court of competent jurisdiction as a debt due to **Transpower**; and

(b) may be challenged in any proceedings to recover the debt on the ground that **Transpower** has incorrectly applied the **transmission pricing methodology** in a manner that is adverse to the **designated transmission customer** but the **transmission pricing methodology** itself may not be challenged.

Compare: Electricity Governance Rules 2003 rule 10 section IV part F

Appendix B Limbs of Statutory Objective

Competition limb

In regard to competition the Authority notes that:

- consistent with the Commerce Act, the Authority interprets competition to mean workable or effective competition;
- facilitating or encouraging increased competition applies to both buyers and sellers in the markets for electricity and electricity-related services;
- the benefits of competition refer to efficiency benefits, not wealth transfers, arising from price movements, but it includes any efficiency effects that may arise from wealth transfers;
- efficient entry and exit in markets are not necessarily orderly; and
- workably competitive markets can bring large value gains to consumers over the long term if they are conducive to entry by innovative suppliers and conducive to efficient investment.

Reliable supply limb

In regard to reliable supply the Authority notes that:

- both continuity of supply and quality of supply are of interest to the Authority, subject to the jurisdiction of the Commerce Act;
- it is currently not always possible to closely tailor security and reliability to the preferences of individual electricity consumers due to the shared nature of the electricity system, although the option should be preserved, where possible, for consumers to invest to achieve their individual preferences;
- although it is usually not possible to estimate the aggregate marginal benefit of security and reliability with a high degree of precision, broad estimates are available to set key parameters for security and reliability that are approximately efficient; and
- consumer concerns about security and reliability may not be constant over time, with concerns growing when events become proximate and receding when events pass.

Efficient operation limb

The Authority also notes that:

- efficient operation of the electricity industry covers situations not adequately covered by the competition and reliable supply aspects of the Authority's statutory objective;
- efficient operation of the electricity industry is interpreted within the context of other Government policies affecting the electricity industry, and in particular does not allow consideration of pan-industry externalities such as carbon emissions; and

- in situations where it is considering initiatives that have conflicting effects on its statutory objective, the Authority will seek to make decisions consistent with maximising overall efficiency benefits for the long-term benefit of electricity consumers.

Appendix C Code Amendment Principles

The Code amendment principles are as follows:

Principle 1 – Lawfulness

The Authority and its advisory groups will only consider amendments to the Code that are lawful and that are consistent with the Act (and therefore consistent with the Authority's statutory objective and its obligations under the Act).

Principle 2 – Clearly Identified Efficiency Gain or Market or Regulatory Failure

Within the legal framework specified in Principle 1, the Authority and its advisory groups will only consider using the Code to regulate market activity when:

- it can be demonstrated that amendments to the Code will improve market efficiency[30] of the electricity industry for the long-term benefit of consumers;
- market failure is clearly identified, such as may arise from market power, externalities, asymmetric information and prohibitive transaction costs; or
- a problem is created by the existing Code, which either requires an amendment to the Code, or an amendment to the way in which the Code is applied.

Principle 3 – Quantitative Assessment

When considering possible amendments to the Code, the Authority and its advisory groups will ensure disclosure of key assumption and sensitivities, and use quantitative cost benefit analysis to assess long-term net benefits for consumers, although the Authority recognises that quantitative analysis will not always be possible.. This approach means that competition and reliability are assessed solely in regard to their economic efficiency effects.

Particular care will be taken to include dynamic efficiency effects in the assessment, and the assessment will include sensitivity analysis when there is uncertainty about key parameters.

Tie-breaker 1: Principles 4 – 8 apply when the quantitative cost-benefit analysis of Code amendment options demonstrates a positive net benefit relative to the counterfactual, but is inconclusive about which is the best option. The Authority will weight these principles in accordance with their relevance and significance for each proposal.

Principle 4 – Preference for Small-Scale 'Trial and Error' Options

When considering possible amendments to the Code, the Authority and its advisory groups will give preference to options that are initially small-scale, and flexible, scalable

[30] Where efficiency refers to the allocative, productive and dynamic efficiency, and improvements to efficiency include, for example, a reduction in transaction costs or a reduction in the scope for disputes between industry participants.

and relatively easily reversible with relatively low value transfers associated with doing so. In these circumstances the Authority will monitor the effects of the implemented option and reject, refine or expand that solution in accordance with the results from the monitoring.

Principle 5 – Preference for Greater Competition

The Authority and its advisory groups will give preference to Code amendment options that have larger pro-competition effects, because greater competition is *likely* to be positive for economic efficiency and reliability of supply.

Principle 6 – Preference for Market Solution

The Authority and its advisory groups will give preference to Code amendment options that directly address the source of the market failure identified under Principle 2, so as to facilitate efficient market arrangements. The Authority and its advisory groups will discount options that subdue or displace efficient market structures.

Principle 7 – Preference for flexibility to allow innovation

The Authority and its advisory groups will give preference to Code amendment options that provide industry participants with greater freedom and lower costs to adapt to the Code amendment as they see fit, unless more restrictive options are justified on the grounds of non-rivalry and/or non-excludability conditions[31]. In the case where both conditions hold perfectly it is generally efficient to adopt a 'one size for all' approach, such as uniform standards. Where these conditions do not hold it may be more efficient to utilise flexible mechanisms, such as incentives.

Principle 8 – Preference for Non-Prescriptive Options

Wherever practicable, when the Authority and its advisory groups are considering standards, they will give preference to Code amendment options that specify the outcomes required of industry participants rather than prescribe what they must do and how they must do it. That is, outcome standards are preferred to input standards, wherever possible.

Tie-breaker 2: Principle 9 applies when the quantitative cost-benefit analysis of Code amendment options is inconclusive that a Code amendment would yield net benefits and there are no options that are small-scale, flexible, scalable and relatively easily reversible.

Principle 9 – Risk Reporting

The Authority will publish a report:

- that assesses the risks of making and not making the Code amendment, taking into

[31] A good or service is *non-rival* when additional consumption by one party does not reduce the amount available for any other party to consume. For example, electricity consumption is rival but security of supply is non-rival. A good or service is *non-excludable* when it is not economically viable to exclude parties from consuming the good or service. For example, electricity consumption is excludable because retailers generally incur a relatively low economic cost to cut power supply to consumers that do not pay their electricity bills. On the other hand, market prices are non-excludable because it is too costly to prevent disclosure of prices to parties that do not contribute to the costs of operating the market.

account Principles 5 – 8 and factoring in the option value associated with waiting longer before intervening; and

- that identifies and assesses non-Code methods for mitigating or addressing the problem.

The Authority will consult interested parties on the risk report before making a final decision on whether or how to amend the Code.

Appendix D Previous interpretation under the Electricity Act 1992 and associated regulatory framework

D.1 The Commission noted that any guidelines developed in accordance with the rules should address the 'user pays' approaches in clauses 12.79(a)/(c) to a greater extent than the 'beneficiary pays' approach in clause 12.79(b) or the 'sunk cost' approach in clause 12.79(d). The 'beneficiary pays' principle was thought likely to bring larger efficiency gains and fairer outcomes than achievable under a 'sunk cost' approach.

D.2 The Commission interpreted clause 12.79(a) as representing a 'user pays' approach and considered this to mean, for the purposes of the Guidelines, that costs should be allocated among customers according to their contribution to the need for the investment and according to their contribution to operation and maintenance costs [i.e. causer pays]. Users were considered to be those who contributed to, and continue to contribute to, the ongoing need for the investment or asset in question. The Commission acknowledged that the practical application of this rule depended on being able to identify the assets and the users of the assets.

D.3 The Commission considered that clauses 12.79(a) and 12.79(c) should be given more weight than 12.79(b) and 12.79(d) as those principles were more consistent with promoting efficiency and fairness.

D.4 The Commission interpreted clause 12.79(b) representing a 'beneficiary pays' approach in respect of new and replacement investments, as transmission prices would be levied on all parties that benefit from grid investment, not just on parties that may have caused the need for the investment. The wording of the rule does not require an allocation in proportion to the benefit, but rather a consideration of how best to incentivise beneficiaries to identify least cost investment options. The Commission commented that the rule would not be used to allocate charges for an asset to a beneficiary greater than the actual benefit received by the beneficiary.

D.5 The Commission interpreted clause 12.79(c) as a requirement that the location component of transmission prices to be transparent and explicit, and that they reflect the cost that location choices by grid users impose on the system. Conceptually, this would seem to require setting grid charges equal to the long run marginal cost (LRMC) of grid expansion at each grid exit point (GXP). However, the Commission noted that this also indicates a 'user pays' type approach, although charging LRMC rates does not achieve full cost recovery because of economies of scale with grid investment. The Commission did not consider it practical to implement locational pricing of alternating current (AC) interconnection assets, but noted it was subject to ongoing investigation. The Commission considered it was practical to separate out new high voltage direct current (HVDC) assets from other transmission assets. The Commission also considered that providing a location signal to load would have little if any practical impact on locations decisions of consumers, but that it would have an effect on generation.

D.6 The Commission interpreted clause 12.79(d) to mean that the appropriate approach to allocating sunk costs depends on views about whether decisions by grid users are distorted by other pricing measures or industry arrangements if the word “distortion” is interpreted as departures from optimal decision-making.

D.7 The Commission did not consider that clause 12.79(d) should apply to new HVDC assets. There are no sunk costs associated with new assets before they are installed, at which time they become existing assets in respect of the future application of the TPM.

D.8 The Commission interpreted clause 12.79(e) to mean that the overall pricing structure needs to contain a price instrument that varies over time in a manner that minimises network constraints, taking into account the marginal cost of supplying electricity. The overall pricing structure includes connection and interconnection charges, nodal price differences, the statement of opportunities (“the SOO”), the Grid Investment Test (GIT), and Financial Transmission Rights (FTR)s. The Commission considered that this rule need not necessarily apply to the HVDC charges in isolation.

D.9 The Commission considered that clause 12.79(f) did not require further elaboration, except to say that other elements of market pricing included nodal pricing, arrangements for allocating surplus loss and constraint rentals, and arrangements for allocating FTR revenue.