



ELECTRICITY COMMISSION

Summary of Final Comments Received on Proposed Grid Investment Test

20 December 2004

Purpose

1. The purpose of this paper is to present a summary of the final comments received by the Electricity Commission (“the Commission”) on the proposed grid investment test (“the GIT”) which was published on 3 December 2004.

Introduction

2. In approaching the development of the GIT the Commission has been guided solely by the GPS and part F. The Commission has found no difficulty in determining the Governments intentions as indicated by these two documents. However, in order to confirm its understandings, the Commission has sought advice from a variety of advisors, legal and otherwise. These have consolidated the Commission's view that its interpretation of part F is the only one that can reasonably be made.

Transpower’s Comments

Accountability for the performance of the grid

3. Transpower reiterate their concern that the GIT undermines Transpower’s accountability for grid planning and performance. No action is required on this it is not related to the drafting of the GIT and has been dealt with in the response to submissions.

Regulatory framework

Clause 6.1

4. Transpower wishes to delete the word “more” from clause 6.1, as they believe the requirement that an alternative scenario “be more appropriate” is a difficult test to satisfy.
5. Transpower’s proposal is accepted, as the Commission would not agree to an alternative scenario if it was not more appropriate. The intention of clause 6.1 is to allow revised scenarios to be adopted only where the Commission considers it would so enhance GIT results as to offset the disadvantages of using an unpublished scenario.

Clause 6.2 and 6.3

6. Transpower wishes to add the following expression to clauses 6.2 and 6.3: “... unless market development scenarios as proposed by Transpower or the Board have been determined to be appropriate.”
7. Transpower’s proposed amendment to clause 6.2 is declined, as the SOO scenarios and probabilities are based on a particular methodology for making decisions under uncertainty. The intention is not to develop the most likely scenarios, but to develop scenarios with particular probabilities. For example, in the initial SOO the intention is to develop scenarios with equal probabilities. Declining Transpower’s proposed amendment to clause

6.2 is necessary to constrain Transpower to proposing scenarios that are consistent with the decision methodology adopted for the SOO.

8. Transpower's proposed amendment to clause 6.3 is declined as the intention of the clause is to limit the number of scenarios to the number published in the SOO. This means that if the Board accepts a Transpower proposal for a "more appropriate scenario" then that proposed scenario has to replace an existing SOO scenario.

Clause 29.1

9. Transpower proposes that clause 29.1 be amended to refer to projects that are likely to occur in a market development project.
10. Transpower's proposal is accepted because it is needed to allow for the possibility for the introduction of market developments scenarios that are proposed by Transpower or the Board in place of market development scenarios in the SOO.

Specification of market benefits

Clause 27

11. Transpower proposes that changes in the value of environmental amenities be added to clause 27, to take into account costs relating to the Resource Management Act (RMA), and changes in the value of electricity supply diversity.
12. Transpower's proposed amendment is declined as changes in the value of environmental amenities are covered in clauses 23.5 and 27.9. The changes in the value of electricity supply diversity can be estimated with real options analysis under clause 15 or assessed with sensitivity analysis under clause 17.2.

Application threshold

13. Transpower reiterated its view that the test should be reserved for major core grid investment (with a suggested threshold of \$5m). They note also that it is unclear as to how the level of rigour would be reduced for low value projects. They note that the combination of these two factors will lead to excessive regulatory compliance costs.
14. Transpower's proposal is declined, as there is no indication in part F that the GIT should be restricted to major core grid investments, and no indication in MED's explanation paper that that was the intention of the part F rules. Transpower's spending escapes the scrutiny of the GIT when it is financed from revenue growth under the current price control regime administered by the Commerce Commission. Transpower can also avoid exposure to the GIT by agreeing investment contracts with transmission customers.
15. In terms of reducing the level of rigour, this can be reduced by not conducting competition benefits analysis, not conducting real options analysis, and reducing the number of variables considered in the sensitivity

analysis. The Commission is committed to limiting the computational burden for small cost projects.

Sensitivity analysis

16. Transpower commented that clause 17 should be amended to allow only some of the variables to be used for sensitivity analysis.
17. Transpower's proposed amendment to clause 17 is accepted as the Commission did not intend Transpower to adopt an all or nothing approach with sensitivity analysis.

Nodal prices

Clause 8.3.2

18. Transpower proposes deletion of clause 8.3.2, which requires the base case to have regard to the current nodal prices.
19. Transpower's proposed amendment to clause 8 is declined as the intention in clause 8 is to allow for sensitivity analysis of generator and demand-side bidding strategies, which needs to be anchored to current nodal prices. The Commission accepts that the reference to nodal prices in clause 8.3.2 needs to be clarified and intends to adopt MEUG's suggestion on this matter.

Key transmission lines

Clause 8.4.8

20. Transpower comments that the reference to "key transmission lines" in clause 8.4.8 should be amended to "the transmission system".
21. Transpower's proposed amendment is declined but the intent of the proposal is accepted, as it is a useful clarification of the legal drafting. The Commission's legal advisers have substituted "the grid" for "key transmission lines" as the grid is a defined term in the Rules.

Competition benefits

Clause 10

22. Transpower comments that the wording of clause 10 implies ex-ante Board approval of the inclusion of competition benefits. Transpower suggests that clause 10.1 be deleted, and clause 10.2 be amended to continue to allow the Board's discretion over the inclusion of competition benefits, but with an ex-post view.
23. Transpower's proposal to delete clause 10.1 is accepted, and clause 10 has been modified to clarify that prior approval is not required, as it was not the intention in clause 10.1 that Transpower had to obtain the Board's prior approval to investigate and evaluate competition benefits. The intention of clause 10 is to allow the Board to decide, once Transpower has investigated and evaluated competition benefits, whether to include competition benefits in the GIT results. This approach is consistent with other elements of the GIT.

Clause 22

24. Transpower comments that the definition of competition benefits in clause 22 should be expanded to include the benefits of demand side management.

25. Transpower's proposal to amend clause 22 is accepted because greater demand side management can enhance competition in the wholesale market.

Market benefits

Clause 27

26. Transpower comments that the list of market benefits in clause 27 should contain reference to real options. This refers to the Commission allowing the use of real options (clause 15), but not referring to real options in the list of market benefits.

27. Transpower's proposal to amend clause 27 is accepted as it ensures consistency with clause 15.

Comments from Meridian Energy

Qualitative and strategic factors

28. Meridian reasserts its point that the most robust framework should be a cost benefit analysis in addition to consideration of qualitative factors and national strategic factors. Meridian also reasserted its submission that the Commission should include national strategic factors in assessing grid investments, and that the inclusion should be explicit in the GIT. As previously advised the Commission believes that strategic factors can be addressed through the provision for competition benefits and real options analysis in the GIT. The Commission intends that strategic issues will be considered in 2005 in conjunction with the Grid Upgrade Plan.

Thresholds

29. Meridian submitted that it does not agree with the Commission's approach regarding the threshold for applying the GIT. They suggest that a 'deeming' threshold be implemented to the effect that proposed investments under the threshold would be deemed to satisfy the GIT.

30. Meridian's proposal for a deemed threshold is declined because Transpower is only required to propose investments to the Commission when their expenditure exceeds the revenue they have available under the Commerce Commission's price control regime. Specifying a threshold would have no influence on investments that Transpower can fund from revenue growth. Provided Transpower seek the Commission's approval for large expenditure items, they cannot be compelled under the current rules to seek the Commission's approval for small expenditure items.

GRS and VOLL

31. Meridian submits that it is difficult to envisage the likely outcomes of the GIT without information on the Commission's approach to Grid Reliability Standards. They suggest that a single figure for VOLL would imply that GRS would be identical across the country. They suggest that the GIT should take into account customer's preferences for different levels of reliability.
32. The Commission does not agree with Meridian that a single figure for VOLL implies the GRS will be identical across the country. For example, with a single VOLL per consumer, the aggregate VOLL for a line supplying 100,000 consumers will be 100 times larger than the aggregate VOLL for a line supplying 1000 consumers. A different GRS is quite likely in these cases.
33. The Commission agrees that it would be theoretically desirable to adopt multiple VOLL values to reflect multiple classes of consumer but in practise these different classes of consumer occur at each grid exit point and so often it will be difficult and costly to differentiate between them. All customers at a grid exit point effectively pay the same price and so should receive the same level of economic reliability. Customers wanting to contract for a higher level of reliability will be able to do so, but generally all other customers at a grid exit point will receive the benefit. Ideally it would also be possible for customers to contract for a lower level of reliability as a transmission alternative or capacity reserve.

Single base case

34. Meridian resubmits its suggestion that there should be a single base case with a single counterfactual investment under all supply and demand scenarios.
35. Meridian's proposed amendment is declined. This proposal is not new and it is the Commission's belief that the approach it is proposing in the GIT achieves the outcome sought by Meridian, and therefore there is no change required to the GIT. As the market development scenarios are primarily fuel based, the counterfactual investment (where it does not have a specific proponent) may be different in each scenario to allow consistency with each scenario's fuel assumptions. Provided the proposed investment and alternative projects are evaluated against the same base case scenarios, the GIT will be conducted on a consistent basis.

Participant funding

36. Meridian considers that there could be place for consideration of a proposed investment that could be partially funded by participants. These investments would be where one party is benefited to a far greater extent than others.
37. Meridian's proposed amendment is declined. This suggestion still faces the problem that it would lead to an overestimation of the benefits of a proposed investment, or an underestimation of the costs of a proposed investment. Therefore it is not recommended that this approach be considered.

Comments from MEUG

Discount rate

38. MEUG strongly object to the proposed default discount rate set in the GIT. Their objection is in two parts. Firstly they object on procedural grounds that the default rate was not contained in the consultation paper, and the 2-day period is not deemed to be consultation. Secondly there is a lack of detail and transparency regarding the default rate. MEUG would prefer that there be no default rate until analysis and consultation on the default discount rate has been completed.
39. The Commission notes this comment and refers the commentator to the SAHA International report dated 30 November 2004 on the appropriate WACC for the GIT. The summary of this report is that the discount rate proposed by the Commission is a close approximation to Transpower's WACC, which could not be used as it had no regulatory definition. The discount rate proposed is therefore consistent with the earlier consultation on the GIT.
40. As noted elsewhere the Commission intends to arrange for further research, but until this is complete it is important to define a default value. It is not expected that the results of early use of the GIT will be highly sensitive to the discount rate used. At this stage it would be incorrect to assume that the Commission's choice of 7% real pre-tax discount rate for the GIT is the Commission's view on the appropriate WACC for Transpower in the new environment.

Nodal prices

Clause 8.3.2

41. MEUG comments that it may be beneficial to alter clause 8.3.2 to refer to historical trends rather than current "nodal prices for electricity". This is on the basis that current nodal prices may not reflect the state of the electricity market, except at a very short-term level.
42. MEUG's proposed amendment is accepted. The Commission agrees that the alteration to clause 8.3.2 would be beneficial as the current time period could prove to be misleading. For example, a sample of nodal prices around April and May of 2003 would suggest that nodal prices were implied to be much higher than previously expected, whereas historical analysis would show a clearer picture of the nodal pricing trends.

Thresholds

43. MEUG comments that there is a need to have a threshold below which the GIT would be applied with rigour commensurate to its value (\$5m), and above which the GIT would be applied equally and fully. This is to ensure that there is a cap on the Commission's discretion and to reduce the risk over the lengthy debates as to the level of rigour to be applied in assessing a proposed investment.

44. MEUG's proposed amendment is declined. The Commission refers the commentator to the detail in the explanatory document. Refer to comment on Meridian's suggestion regarding the application threshold.

Real options

45. MEUG comments that the use of real options should not be considered. If the Commission rejects this proposal, then MEUG propose that only material real options be considered.
46. MEUG's proposed amendment is declined. The Commission believes that real options should be considered, and points MEUG to clause 15 that states that all material real options should be considered. The Commission does not believe parties will consider immaterial real options as they are unlikely to alter GIT results.

Transmission alternatives

Clause 31

47. MEUG comments that improvements in system operations and ancillary services operations should be added to clause 31.
48. MEUG's proposed amendment is accepted. The Commission agrees that this comment will have value for analysis in the GIT, however notes that the level of benefit achieved in the addition of improvements in system operation and ancillary service operations may be on a smaller scale than transmission projects.

EIS Comments

Market Development Scenarios

49. EIS comments that the discretion allowed to Transpower and the Board to propose market development scenarios that are not included in the SOO, gives opportunities for "insiders" to lobby the Board on material unavailable to the general public, which will lead to changes reflecting the preferences of the "insiders".
50. The Commission notes that there could be a perception that the process is open to insiders having an opportunity to lobby the Board, however the intent of the rule is that it should be used when improved information is available that was not available during the publication of the SOO.

Comments from Mighty River Power

General Comments

51. Mighty River Power, due to the short timeframe involved in the comments period, did not provide additional comment on the GIT. However, they provided a perspective on grid investment that was developed in concert with Meridian Energy. This did not provide any specific comments on the proposed GIT, rather their thoughts on the direction of Grid Investment. These thoughts are summarized below.

The Strategic Backbone

52. Meridian and Mighty River Power believe that a strategic vision and plan for the transmission system is vital to take into account the uncertainty of the location of fuel sources. The strategic plan should focus on the core backbone of the grid. They believe Transpower should be required to develop this strategic view of the grid.

Timing of Investment

53. By having a strategic plan in place, Transpower should be encouraged to undertake the preparatory plans, such as obtaining easements, for implementing the investment in the core backbone. Thus the GIT would be the way to determine the most appropriate time to implement the upgrade plan.

Grid Reliability Standards

54. Grid Reliability Standards should reflect the needs of grid users, including preferences for security, tolerance of loss of supply and valuation of load. Also the asymmetric risk of the timing of transmission investment should be taken into account. They believe that qualitative factors such as these should be considered as well as the easily quantified ones.

Transmission Alternatives

55. For the core grid, transmission alternatives that delay a 40-year investment by 2 or 3 years should not be deemed an alternative, rather a deferment. However transmission alternatives may create significant deferment in some regional settings. Both parties oppose mandatory funding of transmission alternatives.

Clarification in Drafting

56. During the final stages before approval of the GIT, the Board wished to see a number of clarifications made to the GIT. These are set out below.
57. Clause 6.1. This is the addition of "proponent of transmission alternative" to the parties that can propose alternative market development scenarios to the Board. This is to allow other parties, who may possess more appropriate information, to propose an alternative market development scenario.
58. Clause 8.5. The deletion of "the base case". This is to remove a circular reference as the clause is regarding proposed investments that must have regard to the base case (from clause 8), and having the base case in the rule would create a circular reference.
59. Clause 19.2. The addition of this clause is to ensure that proposed alternative projects are reasonable in regard to the GIT.