

Explanatory Table of Amendments to Grid Investment Test

Clause	Amendment	Comment
1	Deletion of the phrase 'on <i>[insert date here]</i> ,' and insertion of the phrase 'with effect from 11 February 2005'.	This amendment was made to improve drafting clarity only. It does not change the meaning of this clause.
2	Deletion of the words 'the Electricity Commission, formally constituted as' after the words 'part F of the rules, requires'.	This amendment is made to ensure consistency with the wording of rule 6.1 of section III of part F.
4 opening line	Insertion of the words 'the Board is reasonably satisfied that' at the end of the opening line of clause 4.	<p>Amendment to opening line clarifies that a proposed investment does not satisfy the grid investment test unless the Board is reasonably satisfied that it does. The Commission considers that such an amendment is desirable, given:</p> <ul style="list-style-type: none"> • the qualitative nature of the last element of the test set out in clause 4.3; and • the difficulties associated with quantifying certain benefits of investment identified in Meridian Energy's submission as qualitative and strategic factors. <p>Clause 4.3 requires that a conclusion that a proposed investment satisfies the other elements of the test is sufficiently robust having regard to the results of the sensitivity analysis. In circumstances where a proposed investment satisfies clauses 4.1 and 4.2 but sensitivity testing discloses that this result is not robust, this amendment clarifies that it is the Board that determines whether the grid investment test is or is not satisfied.</p> <p>Meridian submitted that amendments should be made to the grid investment</p>

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		test such that, in determining whether the test is satisfied by a particular investment, the Board must have regard to a number of qualitative considerations and national strategic factors said to be relevant considerations in transmission planning. While the benefits described above, which may be associated with particular proposed investments or alternative projects may be difficult to quantify, the Commission is satisfied that these considerations can be addressed through the primarily quantitative grid investment test. However, in light of the potential for differing views regarding the quantification of the factors outlined by Meridian in its list of proposed qualitative considerations and national strategic factors, it is again desirable that clause 4 is amended to clarify that it is the Board that must be reasonably satisfied that a particular investment meets clauses 4.1 and 4.2.
Heading before clause 5	Heading 'For the purposes of this grid investment test' replaced with heading 'Methodology for application of the grid investment test'.	The replacement of the heading occurred as part of the re-structure of the grid investment test to separate out methodology provisions and interpretation / definition provisions, so increasing clarity. This amendment is also desirable as generally in interpreting a document headings will be disregarded, i.e. treated as not forming part of the document for interpretation purposes.
6 opening line and 6.1	Replacement of opening line with phrase 'In applying this grid investment test:' and amendment of clause 6.1 to insert at end the phrase 'unless the Board determines that market development scenarios developed by Transpower, the proponent of a transmission alternative or the Board are more appropriate'.	Amendments to clause 6.1 are made to provide the Board with discretion to assess a proposed investment against the grid investment test using market development scenarios, other than the future scenarios outlined in the SOO, developed by either Transpower, the proponent of a transmission alternative or the Board. This amendment is a partial response to submissions by Transpower in relation to the requirement that the market development scenarios be the future scenarios in the SOO.

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6.3	Insertion of clause 6.3 'the number of market development scenarios used in applying this grid investment test must be same as the number of market development scenarios set out in the statement of opportunities.'	Amendments to this clause are consequential amendments, flowing from the deletion of the words 'number of' in the opening lines of the definitions of 'market development scenarios' and 'base case' in response to the Meridian Energy submission.
7.2	Replacement of the term 'decommissioned projects' with 'decommissioned assets' and insertion of the preceding words 'the decommissioning, removal or de-rating of'.	This is a consequential amendment flowing from the use of the term 'decommissioned assets' in place of 'decommissioned projects'.
8.3.2	Insertion of new clause 'historical nodal prices for electricity'.	<p>New clause inserted to include nodal prices in the elements of the current state of the electricity industry, to which regard must be had in developing a reasonable base case. This amendment occurs in response to submissions by Meridian in support of the inclusion of nodal pricing in the list in clause 8.3. Meridian reasoned that:</p> <p style="padding-left: 40px;">"Nodal pricing signals the costs of efficiently supplying demand and signals given [sic] the constraints in the current system."</p> <p>Transpower opposed the inclusion of nodal prices in the list in clause 8.3 of elements comprising the current state of the electricity industry. Transpower's view was rejected by the Commission on the basis that the inclusion of a reference to nodal prices facilitates sensitivity testing with respect to nodal pricing in the base case, with this aspect of the base case having implications for the assessment of the competition benefits of a proposed investment or alternative project.</p> <p>By contrast, an MEUG submission that clause 8.3.2 should refer to historical, rather than current, nodal prices was accepted, as current nodal prices may not be representative of trends in nodal pricing.</p>

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8.3.3	Insertion of new clause 'the grid reliability standards'.	New clause inserted to include the grid reliability standard in the elements of the current state of the electricity industry to which regard must be had in developing a reasonable base case. This amendment occurs in response to a Meridian submission that the grid reliability standards "should be considered as part of the current system".
8.3.6	Replacement of the phrase 'key transmission lines' with 'the grid'	This amendment occurs in response to Transpower's submission that the phrase 'key transmission lines' should be replaced with the phrase 'the transmission system'. While the Commission accepts that replacing the phrase 'key transmission lines' will result in increased clarity, the Commission considers that the phrase 'the grid' is preferable to 'the transmission system'. Adopting the phrase 'the transmission system' would simply involve replacing one undefined phrase with another. By contrast, 'grid' is defined in Part A of the EGRs, in essence to mean the transmission system. Part A provides that "'grid" means the system of transmission lines, substations and other works...'.
8.3.7	Deletion of the term 'transmission' where it appeared before the term 'losses'	Clause 8.3.7 is amended to use term defined in Part A of the EGRs, so achieving a greater level of consistency between the grid investment test and the EGRs.
8.4.2	Insertion of clause 'forecast nodal prices for electricity'.	<p>This amendment occurs in response to submissions by Meridian in support of the inclusion of nodal pricing in clause 8.3. Meridian reasoned that:</p> <p style="text-align: center;">"Nodal pricing signals the costs of efficiently supplying demand and signals given [sic] the constraints in the current system."</p> <p>As noted by Meridian:</p> <p style="text-align: center;">"This clause lists the variables to be used to specify reasonably</p>

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		<p>expected future development of the electricity industry. This list compares directly with clause 24 in Appendix 2 except that the proposed rule includes an extra variable - 24(d)(vi) timing of decommissioned projects."</p> <p>The rationale for inclusion of nodal pricing in the list of current elements of the electricity industry is equally applicable to the list of expected future market developments and, as noted by Meridian, these two lists run in parallel. Accordingly, nodal prices has been inserted as a new line item in both clause 8.3 and clause8.4.</p>
8.4.7	Replacement of the term 'decommissioned projects' with 'decommissioned assets' and insertion of preceding words 'decommissioning, removing or de-rating'.	Amendments to this clause are consequential amendments flowing from the adoption of the term 'decommissioned assets' in place of 'decommissioned projects'.
8.4.8	Replacement of the phrase 'key transmission lines' with 'the grid'	This amendment occurs in response to Transpower's submission that the phrase 'key transmission lines' should be replaced with the phrase 'the transmission system'. While the Commission accepts that replacing the phrase 'key transmission lines' will result in increased clarity, the Commission considers that the phrase 'the grid' is preferable to 'the transmission system'. Adopting the phrase 'the transmission system' would simply involve replacing one undefined phrase with another. By contrast, 'grid' is defined in Part A of the EGRs, in essence to mean the transmission system. Part A provides that "'grid" means the system of transmission lines, substations and other works...'.
8.4.9	Deletion of the term 'transmission' where it appeared before the term 'losses'.	Clause is amended to use term defined in Part A of the EGRs, so achieving a greater level of consistency between the grid investment test and the EGRs.

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8.5	Insertion of new clause 8.5 which reads 'the proposed investment to which the grid investment test is to be applied'.	This amendment ensures that the base case used in applying the grid investment test to a proposed investment will be appropriate for that purpose. Clause 8 requires that the base case be reasonable having regard to the proposed investment to which the grid investment test is to be applied.
10	Insertion of new clause which reads: 'Competition benefits may be included in the market benefits of a proposed investment or alternative project if the Board reasonably considers this appropriate, provided the competition benefits can be separately identified and calculated.'	This new clause has been moved from the definition of 'market benefit' in clause 27. However, in so doing, an amendment has been made to clarify that it is the Board that must be satisfied that it is appropriate to include competition benefits in the market benefits of an investment. The Commission considered that the relocation of these provisions was desirable, as they are more in the nature of methodology provisions for the application of the grid investment test, rather than a definition of 'competition benefits'. Refinements to the drafting of clause 10 occurred in response to Transpower's submission that the wording of clause 10 should not imply ex-ante Board approval of the inclusion of competition benefits was required. The Board's prior approval is not required for the investigation and evaluation of competition benefits by Transpower. Rather, the Board has a discretion to determine whether the competition benefits identified by Transpower should be taken into account in the Board's assessment of whether the test in clause 4 is satisfied by a proposed investment.
11	Insertion of new clause 'The alternative projects used in applying this grid investment test must be limited to those appropriate in number and technology given the cost magnitude of the proposed investment, the complexity of the required modelling and the urgency of the proposed investment.'	The requirement set out in this new clause has been moved from the definition of 'alternative projects', as it is a requirement more closely related to methodology for applying the grid investment test than the characteristics of an 'alternative project'. This change has been made in response to a Transpower submission that the inclusion of this requirement in the definition of 'alternative projects' was 'circular, and suggests that the designation of alternative projects is arbitrary'. While the Commission accepts that it may not be ideal to locate this requirement in the definition of 'alternative

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		projects', the Commission does not consider it desirable to delete the requirement (rather than re-locate it) as submitted by Transpower.
12	The provision permitting less rigorous analysis for projects costing between \$1 and \$5 million has been replaced by a clause requiring that the rigour of analysis in applying the grid investment test be commensurate with the cost of the project.	This amendment is made in response to a Transpower submission favouring deletion of the provision permitting less rigorous analysis for projects costing between \$1 and \$5 million. Transpower contended that it 'makes no sense to talk about reduced rigour' because the grid investment test 'does not specify required standards of analysis'.
13	Number of amendments made to second sentence in this clause.	Amendments to this clause made to improve clarity of the drafting. The amendments do not make any substantive change to the meaning of the clause.
14	The requirement to use the regulated Transpower weighted average cost of capital in all present value calculations has been replaced by a requirement to use the discount rate determined by the Board or, in the absence of such a rate, a rate of, or equivalent to, a pre-tax real rate of 7%.	Amendments to this clause are made in response to the Transpower submission that this clause be amended so as to require that present value calculations must use a pre-tax real discount rate of 7%. Transpower submitted: "[This clause] makes reference to the regulated Transpower Weighted Average Cost of Capital. Transpower's [sic] currently calculates its own cost of capital - there is no regulatory figure. Transpower's internal WACC calculation would not be appropriate for use as a discount rate for the GIT for reasons detailed elsewhere in this submission."
16	Insertion of phrase "Subject to clause 17" at the beginning of this clause and deletion of phrase "unless it can be demonstrated that applying sensitivity analysis is either: (a) not reasonably practicable; or (b) not reasonably necessary."	This amendment was made in response to Transpower submissions expressing concern that the approach of the grid investment test to sensitivity analysis was "all or nothing". Transpower was concerned that as previously drafted, the test does not adequately address the situation where one or several of the proposed factors for sensitivity testing set out in clause 17 are not relevant to a particular investment. Transpower thus sought

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		<p>amendment of clause 17 to "make it clear that it provides a list of possible variables to be assessed by sensitivity analysis, the appropriateness of which will vary with circumstances".</p> <p>The Commission has made amendments to clause 17 that broadly give effect to these Transpower submissions. Accordingly, it is not necessary for clause 16 to establish an exception from the requirement to undertake sensitivity analysis where that analysis is not reasonably practicable or not reasonably necessary. By clarifying that the clause 16 requirement to undertake sensitivity analysis is subject to clause 17, clause 17 operates such that where testing is not reasonably necessary or not reasonably practicable in respect of any of the variables listed in clause 17 there is no requirement to undertake sensitivity testing.</p>
17	Insertion of phrase "all of" before the phrase "the following" and insertion after "the following" of the following phrase: "with the exception of those variables in respect of which sensitivity analysis is either not reasonably practicable or not reasonably necessary".	<p>The amendments to clause 17 are made in response to the Transpower submission that the approach of the grid investment test (as previously drafted) to sensitivity analysis was "all or nothing". Transpower was concerned that as previously drafted, the test does not adequately address the situation where one or several of the proposed factors for sensitivity testing set out in clause 17 are not relevant to a particular investment. Transpower thus sought amendment of clause 17 to "make it clear that it provides a list of possible variables to be assessed by sensitivity analysis, the appropriateness of which will vary with circumstances". The amendments to clause 17 broadly give effect to these Transpower submissions.</p>
17.2.2	Addition of the term 'existing assets' into clause.	Amendment to this clause required to ensure that sensitivity testing in relation to the operations and maintenance costs of both the proposed investment and alternative projects, and other infrastructure, extends to existing assets. This change is not made in response to a submission.

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17.4	Replacement of the term 'decommissioned projects' with 'decommissioned assets' and insertion of preceding words 'decommissioning, removing or de-rating'.	Amendments to this clause are consequential amendments flowing from the adoption of the term 'decommissioned assets' in place of 'decommissioned projects'.
17.6	Replacement of reference to ' <i>the</i> present value calculations' with a reference to ' <i>all</i> present value calculations'.	This amendment is made to clarify that this variable for sensitivity analysis relates to the sensitivity of the assessment against the grid investment test to differing discount rates for use in <i>all</i> present value calculations in making the assessment.
17.7	New clause inserted, which reads: 'the discount rate used in present value calculations in relation to a particular alternative project that is a transmission alternative'.	This new variable inserted in the list of variables that may be the subject of sensitivity analysis enables the testing of sensitivity of the assessment against the grid investment test to the application of a different discount rate to individual alternative projects, such as generation investment alternatives, than is applied for present value calculations in that assessment generally. This will allow the Board to draw conclusions about the robustness of the assessment of a proposed investment against the grid investment test, which uses a single discount rate for all present value calculations, where the weighted average cost of capital for non-transmission alternative projects may be quite different to the discount rate used in all present value calculations in applying the grid investment test. The insertion of new clause 17.7 occurs in response to a number of submissions expressing concerns with respect to selection errors in the choice of a discount rate for use in all present value calculations.
17.11	Clause inserted to include as an additional variable for sensitivity analysis 'the forecast amount of carbon charges associated with operating the proposed investment, alternative projects, existing assets, committed projects and modelled projects'.	While Transpower proposed amendments to this clause to whittle the variables for sensitivity testing to a handful of 'key' variables, the Commission is in favour of retaining a discretion with respect to the appropriate matters for sensitivity testing in each instance. Accordingly, the Commission has not deleted any of the listed variables set out in this clause.

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		An additional variable has, however, been added in this clause, specifically an item in relation to the amount of carbon charges associated with operating the various projects.
17.12	Clause inserted to include as an additional variable for sensitivity analysis ' the probability of occurrence of a market development scenario'.	This amendment was made to include an additional variable for the purpose of sensitivity testing, namely testing with respect to the probability of occurrence of the market development scenarios used in applying the grid investment test.
Heading before Clause 18	Insertion of heading 'Interpretation and definitions'.	Insertion of heading occurred as part of the re-structure of the grid investment test to separate out methodology provisions and interpretation / definition provisions, so increasing clarity.
18	Insertion of 'For the purposes if this grid investment test'	This amendment is a consequential amendment associated with the re-structure of the grid investment test to separate out methodology provisions and interpretation / definition provisions. When the heading 'For the purposes of this grid investment test:' was deleted, it became necessary for these words to be inserted into the text of the primary interpretation provision.
18.2	Addition of clause providing that terms defined in clauses 19 to 32 take that defined meaning.	The insertion of this clause is a consequential amendment associated with the re-structure of the grid investment test to separate out methodology provisions and interpretation / definition provisions. When the heading 'For the purposes of this grid investment test:' was deleted, an operative provision was required to specify that the meaning for certain terms set out in clauses 19 to 32 were to operate as definitions of those terms for the purposes of the grid investment test. This new clause is just such an operative provision.

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18.5	Insertion of phrase to limit the operation of the clause to clauses 18-32 of the grid investment test.	Amendments to this clause are made to achieve greater consistency between the provisions of the grid investment test and the EGRs. Specifically, the EGRs do not provide that where a word or phrase is defined in Part A of the EGRs, its other grammatical forms have a corresponding meaning. Where an alternate grammatical form of a defined term is to take a similar meaning, this is specified in defining the principal term. Consistent with this, the grid investment test has been drafted on the basis that where a term defined in Part A of the EGRs is used, it will take its defined meaning, but where another grammatical form of such a defined term is used, it will take its ordinary meaning - not a meaning corresponding to the defined meaning set out in Part A of the EGRs. As such, this clause providing that another grammatical form of a defined term will take a corresponding meaning has been limited to terms defined in the grid investment test itself.
19	Insertion of phrase 'including any variant of the proposed investment that involves a non-negligible change in the timing of that proposed investment'.	The newly inserted words in this clause have been moved from the now deleted clause 8 in the re-structure of the grid investment test.
19.2	Insertion of new clause 'reasonably practicable having regard to the matters set out in clauses 8.1 to 8.4' in the definition of 'alternative projects'.	Clause 19.2 is inserted as the Commission considered it desirable to limit the alternative projects against which a proposed investment will be assessed to those that are reasonably practicable having regard to the matters set out in clauses 8.1 to 8.4.
19.3	The clause has been amended by adding the phrase 'nor any other alternative project'.	Amendments are made in response to the Meridian Energy submission, to ensure that mutually exclusive alternative projects are not excluded from consideration by the operation of this clause. Trustpower expressed concern that regulatory funding for alternatives to transmission investment would not be taken into account as 'alternative projects' by the grid investment test and would not, in any event, be

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		<p>appropriately assessed against the grid investment test, potentially being regarded as uneconomic where, with regulatory funding, they were economic. Trustpower stated:</p> <p style="padding-left: 40px;">"The criterion for considering alternatives does not envisage that alternatives will receive regulatory funding. If this is the assumption then it is unlikely that alternatives, which would otherwise have been uneconomic but for regulatory funding less than the transmission alternative would proceed."</p> <p>The Commission does not consider amendments to be required to address Trustpower's submission. It directs attention to clause 27.9, which provides that the 'market benefits' of a proposed investment or alternative project include 'subsidies or other benefits provided under or arising pursuant to all applicable laws, regulations and administrative determinations'. As a result of this clause, regulatory funding for an alternative to transmission investment could be taken into account under the grid investment test, as consulted, as a benefit associated with such a project, and could offset any costs of the investment in determining the project's 'net benefits' for comparison with other projects.</p> <p>However, it was not the Commission's intent for clause 27.9 to operate in this manner.</p> <p>The Commission proposes to expressly consider the policy issues associated with regulatory funding for transmission alternatives, and any required amendments to the regulatory framework in relation to this issue, early next year. It was not the Commission's intent to pre-empt the outcome of that review in the drafting of the grid investment test, i.e. by providing for regulatory funding for transmission alternatives to be netted off the cost of these projects pursuant to clause 27.9. Rather, clause 27.9 was intended to</p>

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		<p>provide for carbon tax rebates etc. associated with a project to be taken into account in assessing the cost of the project.</p> <p>Where the Commission considers it appropriate following the outcome of its review early next year, the Commission may recommend amendments to the grid investment test to address the treatment of regulatory funding for transmission alternatives for the purposes of the test. Prior to the establishment of rules in respect of the provision of regulatory funding for transmission alternatives (if any), the Commission considers that it would not be reasonable for Transpower (or another participant) to consider that there was a sufficiently certain expectation of receiving regulatory funding in respect of a project to justify the inclusion of an estimate of the amount of that funding in the 'market benefits' for that project.</p>
19(d) (deleted)	Deletion of clause.	<p>This clause has been deleted in response to a Transpower submission to the effect that this clause 'is circular, and suggests that the designation of alternative projects is arbitrary'. The Commission agrees with the Transpower submission only to the extent that it suggests that the requirement set out in this provision is more appropriately incorporated as a requirement with respect to the methodology for applying the grid investment test, rather than a criterion for an 'alternative project'. Thus, while the Commission has deleted this clause, it is replaced by a new clause in the methodology section of the test that essentially establishes the same requirement with respect to the number of 'alternatives projects' to be used in applying the grid investment test.</p>
19.5	Replacement of term '1 year' with term '12 months'.	<p>The words '12 months' have replaced the words '1 year' in this clause, as Part A of the EGRs defines the word 'year' such that it has a meaning inappropriate for use in this clause. (Terms used in this grid investment test that are defined in Part A of the EGRs take that defined meaning, by reason</p>

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		of clause 17.) The use of the term '12 months' does not import the meaning of 'year' set out in the EGRs into this clause.
Deletion of old clause 8 (before clause 20)	Deletion of clause.	This clause has been incorporated into the opening words of the preceding clause in the re-structure of the grid investment test. Accordingly, it has been deleted.
21	Deletion of the words 'number of' from the definition of 'base case'.	Deletion in response to the Meridian Energy submission to this effect. In making this amendment, however, an amendment to clause 6 inserts an express requirement that the number of market development scenarios used in applying the grid investment test must be the same as the number of market development scenarios set out in the SOO.
21.1.1	Deletion of reference to completion and acceptance of environmental impact statements and insertion of phrase 'and fulfilled any other regulatory requirement that must be met before commencing construction'.	This amendment is made to address comments made by Vector in relation to the criteria for 'committed projects'. Vector submitted that there was no need to refer to environmental impact assessments, as such a requirement would be encompassed by the requirement for all planning consents to have been obtained. In deleting the obsolete reference to environmental impact statements, the Commission has inserted a 'catch all' reference to any additional regulatory requirements that must be met prior to the commencement of construction.
21.1.3	Amendment to clause with insertion of phrases 'acquired or executed an agreement to acquire' and 'or has executed an agreement for the leasing of land'.	Amendment made to address comments made by Vector in relation to the criteria for 'committed projects'. Vector submitted that the requirement for land to have been acquired should expressly extend to entering into an agreement for the leasing of land.
21.1.4	Replacement of 'generators' with 'generating units'.	The term 'generating units' has replaced the term 'generators' so that this clause uses the term defined in Part A of the EGRs, so achieving a greater level of consistency between the grid investment test and the EGRs.

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21.1.4	Amendment to clarify the meaning of the term 'executed' where it is used in relation to contracts for the supply and construction of the major components of plant and equipment.	Amendment to address comments made by Vector in relation to the criteria for 'committed projects'. Vector submitted that 'execution dates' for various contractual provisions could be specified that are subsequent to assessment against the grid investment test, yet the projects to which such contractual provisions relate could still be committed. Vector has apparently understood the requirement that a contract / agreement of the relevant type be executed to be a requirement for performance of the obligations under such a contract / agreement to have occurred. A reference to an 'executed' contract or agreement has a settled legal meaning. The Butterworths New Zealand Law Dictionary (5 th ed.) defines 'execution' in relation to a will, deed or other written instrument as '[t]he signing of a deed or will or other written instrument in such manner as to make it (so far as regards form) legally valid' (p.106). For this reason, no amendment to this criterion is necessary. Nonetheless, the Commission clarifies that the term 'executed' in respect of an agreement of the type referred to by the criterion is used in its technical legal sense, by insertion of words that reflect that legal meaning. Some of the confusion was arguably caused by the words 'including any provisions for cancellation payments'. These words have been deleted for this reason.
21.1.5	Amendment to replace reference to completed arrangements for financing with a reference to executed contracts for financing.	Amendment to address comments made by Vector in relation to the criteria for 'committed projects'. Vector submitted that the requirement that finance arrangements had been 'completed' was uncertain, with a project in respect of which completion occurs after assessment no less committed. Again, Vector would appear to have interpreted the term 'completed' as meaning that the financing arrangements have been performed. To address this issue, the Commission has replaced the term 'completed', with the term 'executed' and used the same words as in the preceding criterion to clarify that this term takes its legal meaning.

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22	Addition of the phrases 'direct or indirect' and 'including as a result of the associated introduction of additional demand-side management initiatives' in the definition of competition benefits.	Clause 22 is amended in response to a Transpower submission that the definition of 'competition benefits' should be expanded to include the effects of demand-side management, which may be a substitute for generating capacity. The Commission accepts that greater demand-side management can enhance competition in the wholesale market for electricity.
23	Insertion of phrases 'retail' and 'in New Zealand'.	Amendments to this clause are required, in parallel with analogous amendments to the definition of 'market benefits', to restrict the grid investment test assessment to outcomes in New Zealand and to include electricity retailers in the list of parties comprising the market.
23.1	Insertion of phrase 'including interest during construction'.	Amendments to this clause are made to clarify that the capital costs incurred prior to commissioning of a project include any interest during construction. This amendment was made in response to a submission by Transpower seeking amendments to this effect.
24	The term 'decommissioned assets' replaces the term 'decommissioned projects' and the words 'be decommissioned, removed or de-rated' are inserted.	Amendment in response to Meridian Energy submissions. This clause also contains consequential amendments and non-substantive amendments made to increase the elegance of the drafting.
25	Replace phrase 'existing projects' with 'existing assets' and replace term 'transmission augmentations' with term 'transmission assets'.	<p>Meridian Energy made submissions in support of amendment of this clause to clarify that all generation investments fall within the definition of 'existing projects' and so 'decommissioned projects'. This has instead been achieved by means of an amendment to the definition of 'non-transmission projects'. In response to Meridian Energy submissions, the term 'existing assets' is used in place of 'existing projects' and the term 'transmission augmentations' is replaced by the term 'transmission assets' as a consequential amendment.</p> <p>There was discussion of whether amendments were required to clarify that existing grid falls within the definition of 'existing assets' (this was not an</p>

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		issue raised in the Meridian Energy submission, but its consideration was prompted by the Meridian Energy submissions referred to directly above). In our view, amendments of this type are not required, as 'existing assets' is defined to mean 'transmission assets ... that have been commissioned prior to, and are in operation at the time of, the application of this grid investment test'.
25	Insertion of sentence 'For the avoidance of doubt, an investment in the expansion of generating capacity of an existing generating unit is not an existing asset or part of an existing asset, unless the additional generating capacity associated with that capacity expansion has been commissioned prior to, and is in operation at the time of, the application of this grid investment test.'	This additional sentence has been inserted in the definition of 'existing assets' for the avoidance of doubt. It makes express what, arguably, follows from the application of the provisions - namely, that investment in the expansion of the capacity of an existing generating unit is not part of an 'existing asset' unless it has been commissioned and commenced operating prior to the application of the grid investment test.
27	Insertion of phrases 'retail' and 'in New Zealand'.	Amendment to this clause made to expressly limit 'market benefits' to those benefits accruing to the electricity market in New Zealand and to include electricity retailers in the list of parties comprising the market.
27.4	No amendment made.	Amendments were sought by submissions to include savings in distribution costs resulting from the proposed investment or alternative projects. Changes in costs resulting from the deferral of distribution augmentations are included pursuant to this clause as currently drafted, however, as the definition of 'modelled projects' expressly includes distribution augmentation projects.
27.5	The term 'size' is replaced with 'amount'.	The replacement of the word 'size' with the word 'amount' occurs in response to a Meridian Energy submission. Amendments to the definition of 'market benefits' were sought by Transpower's submissions to expressly include savings in distribution costs

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		<p>resulting from the proposed investment or alternative projects as an additional line item in the list of examples of 'market benefits' in this clause. Changes in costs resulting from differences in the amount of capital expenditure on distribution augmentations are included pursuant to this clause as current drafted, however, as the definition of 'modelled projects' expressly includes distribution augmentation projects. Accordingly, no amendment is made to clause 27.5 in response to this Transpower submission.</p>
27.6	<p>No amendments, other than consequential amendments from substitution of the term 'existing assets' for the term 'existing projects' in the grid investment test.</p>	<p>Amendments to the definition of 'market benefits' were sought by Transpower's submissions to expressly include savings in distribution costs resulting from the proposed investment or alternative projects as an additional line item in the list of examples of 'market benefits' in this clause. Changes in costs resulting from differences in operations and maintenance expenditure on existing, committed and modelled distribution projects are included pursuant to this clause as currently drafted, however, as the definitions of 'existing projects', 'committed projects' and 'modelled projects' expressly include distribution projects. Accordingly, no amendment is made to clause 27.6 in response to this Transpower submission.</p>
27.8	<p>The word 'transmission' is deleted and the phrase 'including local losses' inserted.</p>	<p>Amendments made so that the clause uses the term 'losses' as defined in Part A of the EGRs, achieving a greater level of consistency between the grid investment test and the EGRs and ensuring that losses on the distribution network are included.</p> <p>Amendments to this clause are made, in part, to clarify that 'market benefits' includes any changes in distribution losses resulting from the proposed investment or alternative project. This amendment was made in response to the Transpower submission that savings in distribution costs should be expressly included in the definition of 'market benefits'.</p>

Clause	Amendment	Comment
27.9	No amendments made.	<p>As a result of submissions by Trustpower during the consultation process in relation to the definition of 'alternative projects', it became evident that this clause may operate to result in any regulatory funding for transmission alternatives being netted off the costs of that project as a market benefit, if and when the Commission recommends and the Minister makes rule changes that provide for funding of this type. However, it was not the Commission's intent to pre-empt its review early next year of the policy issues associated with regulatory funding for transmission alternatives.</p> <p>The Commission did not intend to provide for regulatory funding for transmission alternatives to be netted off the cost of those projects pursuant to this clause. Rather, this clause was intended to provide for carbon tax rebates etc. associated with a project to be taken into account in assessing the cost of the project.</p> <p>The Commission will consider the need for amendments to the grid investment test to address the treatment of regulatory funding for transmission alternatives for the purposes of this test, at the time of developing rules in relation to regulatory funding for transmission alternatives. This will minimise the risk of any unintended consequences flowing from an attempt to address this issue in the grid investment test now, prior to the development of the rules in relation to the approval of regulatory funding, and it does not pre-empt the position the Commission will determine on with respect to regulatory funding for transmission alternatives following its review early next year. Prior to the establishment of rules in respect of the provision of regulatory funding for transmission alternatives (if any), the Commission considers that it would not be reasonable for Transpower (or another participant) to consider that there was a sufficiently certain expectation of receiving regulatory funding in respect of a project to justify</p>

Clause	Amendment	Comment
		the inclusion of an estimate of the amount of that funding in the 'market benefits' for that project.
27.10	Insertion in the inclusive list of 'market benefits', in the 'market benefits' definition, an additional item that reads: 'the value of any material real options associated with the proposed investment or alternative project'.	This item is inserted in the inclusive list of 'market benefits' in response to Transpower's submission that the value of real options should be included in the list of possible 'market benefits', as the grid investment test has provided for the use of real options analysis where appropriate. The Commission agreed that such an amendment was desirable to ensure consistency.
27.11	Deletion of the words qualifying the inclusion of competition benefits in the market benefits of an investment and inserting the words 'subject to clause 10' so that the inclusion of competition benefits is subject to that provision.	The qualifying words that have been deleted have been moved to a new clause 10 in the methodology section of the test. The Commission considered that this was desirable as the deleted words were more in the nature of methodology for applying the grid investment test than a definition of competition benefits.
28	Deletion of the words 'number of' in the definition of 'market development scenarios'.	Amendment in response to the Meridian Energy submission to this effect. In making this amendment, an amendment to clause 6 inserts an express requirement that the number of market development scenarios used in applying the grid investment test must be the same as the number of market development scenarios set out in the SOO.
29.1	Deletion of the phrase 'identified in the statement of opportunities as' at the beginning of this clause.	This amendment is made in response to a Transpower submission that proposed amendment of clause 29.1 to reflect the Board's discretion to determine on the use of a market development scenario other than one outlined in the SOO in accordance with clause 6.1. The Commission agrees that such an amendment is desirable and is satisfied that where the market development scenarios used in applying the grid investment test are the possible future scenarios outlined in the SOO, the modelled projects that are 'likely to occur in a market development scenario' will be those outlined in respect of the relevant possible future scenario in the SOO.

Clause	Amendment	Comment
30	Amendment to the definition of 'net market benefit' to delete the phrase ' for a market development scenario developed for the future with that proposed grid investment or alternative project'.	Amendment made in response to a Meridian Energy submission in favour of the simplification of this definition in the manner adopted here. The deletion of the deleted words does not change the meaning of the term 'net market benefit'. The definition of the term 'expected net market benefit' makes clear that there is a 'net market benefit' for each market development scenario, rendering the deleted words in the definition of 'net market benefit' redundant.
31.1	The definition of 'non-transmission projects' is amended by deleting the word 'local' where it appears before the word 'generation' in clause 31.1.	This amendment is made in response to the Meridian Energy submission that all generation investments should fall within the definition of 'existing assets' and so 'decommissioned assets'. This amendment achieves this result.
31.4	The definition of 'non-transmission projects' is amended by inserting the word 'local' in place of the word 'distribution' in clause 31.4.	The definition has been amended by inserting the word 'local' in place of the word 'distribution' so as to use the term 'local network' defined in Part A of the EGRs, so achieving a greater level of consistency between the grid investment test and the EGRs.
31.5	The definition of 'non-transmission projects' is amended by inserting clause 31.5 which reads: 'improvements to the systems and processes of the system operator'.	This amendment is made in response to an MEUG submission that such a change is desirable, as it is not clear that the reference to 'transmission augmentation investments' - the other component in the clause 21 definition of 'committed projects' - would include investments in improvements to system operations.
31.6	The definition of 'non-transmission projects' is amended by inserting clause 31.6 which reads: 'the provision of ancillary services'.	This amendment is made in response to an MEUG submission that such a change is desirable, as it is not clear that the reference to 'transmission augmentation investments' - the other component in the clause 21 definition of 'committed projects' - would include investments in ancillary service operations.

Clause	Amendment	Comment
32	<p>1 Amendment to definition of 'proposed [grid] investment' by deletion of the words 'grid' and 'in the grid', deletion of the \$1 million threshold for a proposed investment and replacement of the term 'proposed grid investment' by the term 'proposed investment'.</p> <p>2 Amended wording of clause by deletion of requirement for proposed investment requiring 'estimated capital expenditure prior to commissioning of \$1 million or more'.</p> <p>3 Amendment to the definition of 'proposed investment' by moving the phrase 'economic investment' after the phrase 'reliability investment' and inserting new words 'and submitted by it to the Board for approval under rules 13 or 14, respectively, of Part F, Section III of the rules.</p> <p>4 New sentence is inserted at the end of the definition of 'proposed investment' which reads 'For the avoidance of doubt, an investment that is to be fully funded under an investment contract by one or more designated transmission customers that are party to that investment contract is not a proposed investment.'</p>	<p>1 The first amendment is made in response to Meridian Energy and Transpower submissions and to ensure consistency between EGRs and the grid investment. The EGRs require the grid investment test to be applied by the Board to review and approve reliability investments (Part F, Section III, rule 6.2.3). As defined in Part A of the EGRs, the term 'reliability investments' includes alternative arrangements by Transpower, in addition to grid investments. The retention of the deleted words 'in the grid' would have prevented the assessment of 'reliability investments' in the form of 'alternative arrangements by Transpower' inconsistent with the rule 6.2.3 requirement. Consistent with the re-defining of this term to include alternatives to grid investment in the case of reliability investments, the term 'proposed grid investment' has been replaced by the term 'proposed investment'. This change was also sought by Transpower in its submissions.</p> <p>2 The \$1 million threshold for a proposed investment has been deleted in response to a Transpower submission that 'this appears inconsistent with the rule which requires all investment contained in the grid upgrade plan to satisfy the grid investment test'. However, the new clause 11 provides that the rigour of analysis in applying the grid investment test should be appropriate having regard to the value of the project.</p> <p>3 The third amendment is made to clarify that the grid investment test is only applied to investments that are submitted to the Board for approval under rules 13 or 14 of Part F, Section III of the EGRs.</p> <p>4 The fourth amendment is made to clarify that the grid investment test is not to be applied to investments made pursuant to</p>

Clause	Amendment	Comment
		investment contracts that are to be funded by designated transmission customers.
Miscellaneous Amendments		
Majority of clauses are affected.	<ul style="list-style-type: none"> • Replacement of capitalised words 'Section' and 'Part' with lower case 'section' and 'part'. • Replacement of 'Electricity Governance Rules' with the defined term 'rules'. • Replacement of term 'paragraph' with 'clause'. • Change to numbering style and consequential amendments to cross-references. 	These amendments are made to ensure consistency with the style adopted in the EGRs, in particular in other schedules to Parts of the EGRs, in preparation for publication of the grid investment test as a schedule to Part F, Section III of the EGRs.