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Transpower Capital Expenditure Input Methodology Amendments Determination 2018

[2018] NZCC 8

Input methodologies amendments made under Part 4 of the Commerce Act 1986

The Commission: Transpower Division

Sue Begg

Dr Stephen Gale Elisabeth Welson

Date of decision 25 May 2018

Sue Begg

Deputy Chair

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Determination history				
Determination date	Decision number	Determination name		
31 January 2012	[2012] NZCC 2	Transpower Capital Expenditure Input		
		Methodology Determination		
2 February 2012	n/a	Error correction: repaired reference links in		
		clause D1(2)(b)		
28 August 2014	[2014] NZCC 22	Transpower Input Methodologies Amendments		
		Determination 2014		
27 November 2014	[2014] NZCC 34	Transpower Input Methodologies Amendments		
		Determination 2014 (No. 2)		
5 February 2015	[2015] NZCC 3	Transpower Input Methodologies Amendment		
		Determination 2015		
25 May 2018	[2018] NZCC 8	Transpower Capital Expenditure Input		
		Methodology Amendments Determination 2018		

TRANSPOWER CAPITAL EXPENDITURE INPUT METHODOLOGIES AMENDMENTS DETERMINATION 2018

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Pursuant to s 54S of the Commerce Act 1986, the Commerce Commission makes the following determination:

1. TITLE

This determination is the Transpower Capital Expenditure Input Methodology Amendments Determination 2018.

2. INTERPRETATION

- 2.1 In this determination (excluding Attachments A and B), the words or phrases in bold type bear the following meanings:
 - (a) major capex project has the same meaning as in the principal determination;
 - (b) major capex proposal has the same meaning as in the principal determination;
 - (c) principal determination means the Transpower Capital Expenditure Input Methodology Determination [2012] NZCC 2 as in effect immediately before this determination comes into force;
 - (d) RCP2 means the period commencing on 1 April 2015 and ending on 31 March 2020 to which the Transpower Individual Price-Quality Path Determination [2014] NZCC 35 applies.

3. DETERMINATION AMENDED

This determination amends the Transpower Capital Expenditure Input Methodology Determination [2012] NZCC 2.

4. COMMENCEMENT AND APPLICATION

- 4.1 This determination comes into force on the day after the date on which notice of it is given in the New Zealand Gazette under s 52W of the **Act**.
- 4.2 Amendments in this determination apply to the **principal determination** from the day this determination comes into force except-
 - (a) Subpart 2 of Part 3, clause 4.1.1, clause 6.1.1(7), clause B1, clause B2, clause B3 and clause B7 of the **principal determination** will continue to apply in relation to **RCP2**;
 - (b) clause 3.3.4, clause 3.3.7, clause 7.4.2, clause B4, clause B5 and Schedule H of the principal determination will continue to apply in relation to all major capex projects approved before this determination came into force; and

- (c) Schedules C, D, G and I of the **principal determination** will continue to apply in relation to all **major capex proposals** submitted to the **Commission** for approval before this determination came into force.
- 4.3 Where clause 4.2 of this determination provides that a subpart, clause, or schedule of the **principal determination** will continue to apply, the amendments made by this determination to the mentioned clauses, subparts or schedules of the **principal determination** do not apply.

5. PRINCIPAL DETERMINATION AMENDMENTS

- 5.1 Replace the contents page of the **principal determination** with the contents page in Attachment A.
- 5.2 The amendments to the body of the **principal determination** are the deletions, substitutions and additions to the attached copy of the **principal determination** that are tracked in blue in Attachment B together with the necessary changes to clause numbers and clause cross-references which aren't tracked.

ATTACHMENT A

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ATTACHMENT B:

PART 1 GENERAL PROVISIONS

1.1.1 Title

This determination is the Transpower Capital Expenditure Input Methodology Determination.

1.1.2 Application

The **input methodology** in this determination applies to **electricity transmission services** in relation to **IPP** regulation under Subpart 7 of Part 4 of the **Act**.

1.1.3 Commencement

This determination comes into force on the day after the date on which notice of it is given in the New Zealand Gazette under s 52W of the **Act**.

1.1.4 Transitional provisions

- (1) A major capex project approved by-
 - (a) the Electricity Commission under Part F of the Electricity Governance Rules 2003; or
 - (b) the **Commission** in accordance with s 54R(3)(b) of the **Act**,

will be treated for the purposes of this determination as a **major capex project** that has been approved by the **Commission** under clause 3.3.5.

- (2) Where subclause (1) applies, in treating the approval by the Electricity Commission or the **Commission** in question as an approval under clause 3.3.5-
 - (a) the quantum of approved major capex is-
 - (i) the major capex allowance; or
 - (ii) maximum recoverable costs;

to the extent that the **major capex** relates to a **transmission investment** or **non-transmission solution** respectively;

- (b) any date specified as part of the approval as that on which the approval expires is the **approval expiry date**;
- (c) the quantum of any required outputs or deliverables are **approved major capex project outputs**;
- (d) any estimated cost adopted as part of approving the major capex project where the probability of the actual cost being lower than that estimated is 50% is the P50;

Deleted: <#>For the avoidance of doubt-¶ <#>any application by Transpower for approval or amendment to an approval of a major capex project received after this determination comes into force will be decided in accordance with the input methodology in this determination; and ¶ <#>any application by Transpower for approval of a major capex project-¶ <#>made to the Commission in accordance with s 54R(3)(b) of the Act prior to this determination coming into force: and ¶ <#>in respect of which a decision as to its approval has not been made by the Commission at that time,¶ <#>will be decided in accordance with s 54R(3)(b) of the Act notwithstanding that $\underline{\text{this determination is in force.}}\P$

- any forecast commissioning date of the major capex project adopted as part of approving the major capex project is the commissioning date assumption;
- (f) any forecast completion date in respect of a non-transmission solution adopted as part of approving the major capex project is the completion date assumption; and
- (g) any specification of the attribution of major capex in respect of a non-transmission solution as recoverable costs to one or more disclosure years is the recovery scheme.

1.1.5 <u>Interpretation</u>

- (1) In this determination-
 - (a) unless stated otherwise, references to Parts are to named and numbered parts of the determination;
 - (b) references to subparts are to subparts within the same part in which the reference is made;
 - (c) unless the context otherwise requires, a word which denotes the singular also denotes the plural and vice versa;
 - (d) unless stated otherwise, any reference to an allowance, amount, cost, rate, sum or value is a reference to an allowance, amount, cost, rate, sum or value calculated in relation to **Transpower** in respect of a **disclosure year**; and
 - (e) any reference to a period of time must be interpreted in accordance with section 35 of the Interpretation Act 1999.
- (2) In this determination, including in the schedules, the words or phrases in bold type bear the following meanings:

Α

Act means the Commerce Act 1986;

actual FX rate means, in respect of each relevant currency, weighted average exchange rate obtained by **Transpower** in its foreign currency transactions for the **base capex** or **major capex** in question;

<u>adjusted low incentive rate base capex allowance means the value b* calculated as specified in clause B1(3);</u>

adjusted major capex allowance means the value b calculated as specified in clause B3(1);

<u>adjusted standard incentive rate base capex allowance means the value *b* calculated as specified in clause B1(2);</u>

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Deleted: <#>adjusted base capex allowance means base capex allowance plus monetary amount of additional approved base capex in respect of listed projects to be used when calculating maximum allowable revenue or forecast maximum allowable revenue in applying an IPP determination, adjusted to take account of any disparity between-forecast CPI that applied when the base capex allowance was determined and actual CPI; and ¶

<#>forecast FX rates that applied when the base capex allowance was determined and actual FX rates,¶

and its quantum is calculated in accordance with clause B1(1):

Deleted: major capex allowance adjusted to take account of-

Deleted: ¶

any disparity between-¶
forecast CPI and actual CPI; and¶
forecast FX rates and actual FX rates; and ¶
other amounts which do not apply in
respect of the calculation of the major
capex overspend adjustment,¶
and its quantum is calculated in accordance
with clause B4(4):

ancillary service has the same meaning as 'ancillary service' is defined in the code; annual compliance statement has the meaning specified in the IPP determination; application submission date means the date by which Transpower plans to submit a major capex proposal;

approval expiry date means date on which the approval given by the **Commission** in respect of a **major capex project** under clause 3.3.5 expires;

approval timeframe means <u>a</u> timeframe for the **Commission** to approve <u>a **major capex** project or staging project under clause 3.3.5 or amend an <u>existing approval of an approved</u> major capex project <u>under clause 3.3.6</u>;</u>

<u>approved major capex project means a major capex project or staging project approved</u> by the **Commission**;

approved major capex project outputs means the grid outputs applying to an approved major capex project;

asset capability grid output measure means a grid output measure, that-

- (a) quantifies the capability or utilisation of the grid, whether at the level of-
 - (i) individual assets;
 - (ii) an aggregation of assets, such as by substation; or
 - (iii) the grid; and
- reflects the output or benefit (where 'benefit' may include a reduction in risk) delivered by investment in additional capacity to supply electricity transmission services;

asset health grid output measure means a grid output measure that-

- (a) quantifies the fitness for service of the grid, whether at the level of-
 - (i) individual assets;
 - (ii) an aggregation of assets, such as by substation; or
 - (iii) the grid; and
- (b) reflects the output or benefit (where 'benefit' may include a reduction in risk) delivered by expenditure-
 - (i) on asset refurbishment;
 - (ii) on asset replacement; or
 - (iii) which is operating expenditure;

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Deleted: in respect of a **proposed investment** approved by the **Commission** under clause 3.3.3

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asset performance measure means <u>a **grid output measure**</u>, that quantifies the performance, reliability or availability of the **grid**, whether at the level of-

- (a) individual assets;
- (b) an aggregation of assets, such as by substation; or
- (c) the grid;

asset refurbishment means work driven by **Transpower's policies** on a **project** or **programme** that refurbishes an asset, or sub-component of an asset, and-

- (a) materially extends its original economic life; and
- (b) does not improve its original service potential,

save that it excludes any work to ensure that the asset or sub-component is able to perform its designated function for its normal estimated operating life;

asset replacement means work driven by **Transpower's policies** on a **project** or **programme** that replaces substantially all of an asset, or sub-component of an asset, where the replacement-

- (a) is required due to the condition or performance of that asset; and
- does not materially improve the original service potential beyond that attributable to using modern equivalent assets;

В

base capex means capital expenditure that-

- (a) is incurred in relation to one or more of:
 - (i) asset replacement;
 - (ii) asset refurbishment;
 - (iii) business support; and
 - (iv) information system and technology assets; or
- (b) is not forecast to be major capex;

base capex allowance adjustment mechanism means a mechanism specified in an IPP determination which will adjust the standard incentive rate base capex allowance in respect of one or more E & D base capex projects or E & D base capex programmes upwards by pre-set amounts once defined thresholds are met based on one or more drivers of base capex;

base capex allowances mean the low incentive rate base capex allowance and standard incentive rate base capex allowance;

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Deleted: (excluding a **non-transmission solution**)

Deleted: the following things

Deleted: included in a-project whose aggregate forecast capital expenditure exceeds the base capex project threshold; and ¶

programme whose aggregate forecast capital expenditure exceeds the base capex programme threshold

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Deleted: monetary amount of **base** capex to be used when calculating maximum allowable revenue or forecast maximum allowable revenue in applying an **IPP determination**

base capex category means description of a category of **base capex** suitable for grouping **programmes** or **projects** relating to **base capex** as of similar type;

base capex expenditure adjustment means the amount calculated as specified in clause B1(1);

base capex low incentive rate means 15%;

base capex programme means a programme of base capex;

base capex project means a project of base capex;

base capex proposal means information submitted by **Transpower** to the **Commission** for the purpose of the **Commission** determining the things specified in clause 2.2.2;

base capex standard incentive rate means 33%;

base capex threshold means \$20 million;

business support means costs not directly incurred in relation to the **grid** and incurred in relation to-

- (a) information system and technology assets;
- (b) office buildings;
- (c) depots and workshops;
- (d) office furniture and equipment;
- (e) motor vehicles; or
- (f) tools, plant and machinery;

C

calculation period means 20 year period commencing on the **commissioning date** of the last asset to be delivered by the **proposed investment**, save that where significant **electricity market benefit or cost elements** and **project costs** are expected to-

- (a) cease to arise or be incurred during that period; or
- (b) arise or be incurred thereafter,

it means the period commencing on the **commissioning date** of the last asset delivered by the **proposed investment** and terminating on the last date that significant **electricity market benefit or cost elements** and **project costs** are expected to arise or be incurred;

cap means specified **grid output** which limits the amount of positive revenue adjustment arising from the calculation of the **grid output adjustment** through the application of the **grid output mechanism**;

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Deleted: of after-tax economic gain or loss to take account of deviation by **Transpower** in base capex for a disclosure year with respect to the adjusted base capex allowance for that disclosure year

Deleted: base capex incentive rate means the percentage that **Transpower** must bear-¶

(a) of the difference between base capex for a disclosure year and the adjusted base capex allowance for that disclosure year as a result of the base capex expenditure adjustment; or¶

<#>of the base capex relating to noncompliant projects or programmes as a result of the policies and processes adjustment; ¶

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Deleted: where the last asset delivered by a **programme** has a forecast **commissioning date** in-

Deleted: <#>the transition year, a threshold for the programme of \$5 million;¶ <#>the remainder period, a threshold for the programme of \$5 million; and¶ <#>any period other than RCP1, a threshold for the programme of \$20 million.¶

<#>base capex project threshold means, where the last asset delivered by a project has a forecast commissioning date in-the transition year, a threshold for the project of \$1.5 million;

<#>the remainder period, a threshold for
the project of \$5 million; and ¶
<#>any period other than RCP1, a
threshold for the project of \$20 million; ¶

capital expenditure or capex means costs that-

- (a) have been incurred in the acquisition or development of an asset that is, or is intended to be, **commissioned**; and
- (b) are intended to be included in the value of commissioned asset;

closing RAB value means the value calculated in accordance with clause 2.2.3(4) of the Transpower Input Methodologies Determination 2010, as modified pursuant to clause 3.3.1 of that determination;

code has the same meaning as 'code' is defined in the Electricity Industry Act 2010;

collar means specified **grid output** which limits the amount of negative revenue adjustment arising from the calculation of the **grid output adjustment** through the application of the **grid output mechanism**;

Commission has the same meaning as defined in s 2 of the **Act**;

commissioned has the same meaning as defined in the Transpower Input Methodologies, Determination 2010;

commissioning date means the date the asset is first commissioned;

commissioning date assumption means the assumption made as to the **commissioning date** of the last asset to be delivered by an **approved major capex project**;

committed project has the meaning specified in clause D8(1);

competition effects has the meaning specified in clause D5;

completion means the provision of all services forecast to be delivered by the **non-transmission solution**;

completion date means the date that a non-transmission solution achieves completion;

completion date assumption means the assumption made as to <u>the</u> **completion date** for a **non-transmission solution**;

consumer has the same meaning as specified in s 52C of the Act;

CPI means-

- (a) subject to paragraph (c), in respect of the December 2010 quarter and subsequent quarters, the consumer price index stipulated in the 'All Groups Index SE9A' as published by Statistics New Zealand;
- (b) subject to paragraph (c), in respect of each quarter prior to the December 2010 quarter, the same index as described in paragraph (a) multiplied by 1.02; and

Deleted: have been or will be included in a value of commissioned asset, but only to the extent that the costs have been or will be included in a closing RAB value;- orare a non-transmission solution;

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(c) in respect of quarters prior to any quarter in which the rate of GST is amended after this determination comes into force, the same index as described in paragraph (a), multiplied by the Reserve Bank of New Zealand's forecast change in that index (expressed as a decimal) arising from the amendment;

D

decommissioned asset has the meaning specified in clause D8(2);

demand and generation scenario has the meaning specified in clause D3(1);

demand and generation scenario variation has the meaning specified in clause D3(2);

director means <u>an</u> individual occupying the position of director in the company, by whatever name that position is called;

disclosure year means a 12 month period ending on 30 June;

Example: 'disclosure year 2012' means 12 month period ending on 30 June 2012;

discount rate has the meaning specified in clause D6(3);

document has the same meaning as defined in s 2 of the Act;

Ε

E & D base capex means base capex-

- (a) that is not in relation to:
 - (i) asset replacement;
 - (ii) asset refurbishment;
 - (iii) business support; or
 - (iv) information system and technology assets; and
- (b) is not funded under a **new investment contract**;

E & D base capex project means a project of E & D base capex;

E & D base capex programme means a programme of E & D base capex;

electricity market benefit or cost element has the meaning specified in clause D4(1);

electricity transmission services means electricity lines services (as 'electricity lines services' is defined in s 54C of the **Act**) supplied by **Transpower**;

exempt major capex means the amount of the major capex allowance to which the major capex incentive rate does not apply which may be expressed by reference to a category of expenditure within a major capex project or staging project, as determined by the Commission under clause 3.3.5(7);

existing asset has the meaning specified in clause D8(3);

expected net electricity market benefit has the meaning specified in clause D2(1);

F

forecast CPI means **CPI**, unless **CPI** does not apply to the period in question, in which case it means the most recent **CPI** extended by-

- (a) in the case of a quarter for which a forecast of the annual percent change in the headline **CPI** contained in the current Monetary Policy Statement issued by the Reserve Bank of New Zealand has been made, that forecast; and
- (b) in respect of later quarters, the forecast last applying under paragraph (a) adjusted such that an equal increment or decrement made to that forecast for each of the following three years results in the forecast for the last of those years being equal to the target midpoint for the change in headline CPI set out in the Monetary Policy Statement referred to in paragraph (a);

forecast FX rate means, in respect of each relevant currency, forecast weighted average exchange rate that **Transpower** can reasonably be expected to obtain in its foreign currency transactions for the **base capex** or **major capex** in question;

G

generator has the same meaning as defined in the code;

good electricity industry practice has the same meaning as specified in the **code**;

grid has the same meaning as specified in the code;

grid output means the output in respect of a particular grid output measure;

grid output adjustment means the amount calculated as specified in clause B2;

grid output incentive rate means the amount of money that Transpower may recover or must bear, as the case may be, per unit of the grid output measure, as a result of the quantum of difference between the grid output for a disclosure year and the grid output target, which rate will be expressed as a-

- (a) positive number where an increase in **grid output** is intended to result in an increase in revenue; and
- (b) negative number where an increase in **grid output** is intended to result in a decrease in revenue;

grid output measure means <u>a</u> measure that quantifies the output or benefit (where 'benefit' may include reduction in risk) delivered by the grid, investment in the grid, or expenditure facilitating or enabling future investment in the grid;

Deleted: quantum of

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Deleted: of after-tax economic gain or loss to take account of deviation by **Transpower** from its **grid output targets**

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grid output mechanism means the formula by which the grid output adjustment is calculated, as specified in the table in clause B2(1);

grid output target means the quantum of output at which the **grid output adjustment** will be nil;

grid reliability standards has the same meaning as specified in Schedule 12.2 to the code;

GST has the same meaning as defined in s YA 1 of the Income Tax Act 2007 as amended from time to time, and any equivalent legislation that supplements or replaces that definition:

ı

ID determination means an information disclosure determination in relation to **Transpower** made by the **Commission** under s 52P of the **Act**;

identified programmes means the base capex projects and base capex programmes forecast to be undertaken by Transpower during the next regulatory period that are selected by reference to the categories or criteria agreed or specified under clause 2.2.1;

information system and technology assets means assets used in operating or supporting the operation of the **grid**, including-

- (a) Transpower's telecommunications network;
- (b) SCADA; and
- (c) devices which provide data to **SCADA** and **grid** systems;

input methodology has the same meaning as defined in s 52C of the Act;

integrated transmission plan means collection of **documents** describing **Transpower's** forecast expenditure and outputs that complies with clause 7.2.1;

investment need means need for grid investment;

investment option means a technically feasible solution, including a non-transmission solution, designed to facilitate or meet a specific investment need, other than an option fully funded under a new investment contract;

investment test means the test specified in Schedule D Division 1;

IPP means individual price-quality path;

IPP determination means <u>an individual price-quality determination applying to **Transpower** made by the **Commission** under s 52P of the **Act**;</u>

ITP narrative means <u>a</u>high level description, that includes the information specified in clause E2;

ITP supporting documents means the documents specified in clause E3;

Deleted: means the grid reliability standards

Deleted: has the meaning specified in clause F2;

Deleted: grid re-enforcement,

Deleted: or a non-transmission solution

Deleted: has the meaning specified in clause D2

Deleted: , of **Transpower's** forecast expenditure and outputs

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key assumption means assumption made by **Transpower** of significance to the outcome of the matter in question: L

listed project means a base capex project or base capex programme that is specified as a 'listed project' under clause 2.2.2(6);

Jow incentive rate base capex allowance means the amount subject to the base capex low incentive rate as determined under clause 2.2.2(1)(a);

low incentive rate base capex expenditure adjustment means the amount calculated as specified in clause B1(3);

low incentive rate base capex project means a base capex project or base capex programme that is specified as a 'low incentive rate base capex project' as determined under clause 2.2.2(2)(a);

M

major capex means expenditure that-

- is incurred to:
 - meet the grid reliability standards; or
 - provide a net electricity market benefit; and
- (b) is forecast to be
 - capital expenditure included in a project or programme whose aggregate forecast capital expenditure exceeds the base capex threshold (subject to clause 3.3.3(2)); or
 - (ii) expenditure on a non-transmission solution; and
- is not incurred in relation to any of the following things: (c)
 - (i) asset replacement;
 - asset refurbishment; (ii)
 - (iii) business support; or_
 - (iv) information system and technology assets;

major capex allowance means the amount of major capex approved by the Commission in relation to an approved major capex project;

major capex expenditure and output adjustment means the amount calculated by the **Commission** as specified in clause B3;

major capex incentive rate means 15% or an alternative rate specified by the Commission in respect of an approved major capex project;

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is identified as a 'listed project' in an IPP determination

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Deleted: <#>complies with the requirements of clause 2.2.3(2);¶

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Deleted: <#>is forecast to be-¶ <#>included in a project whose aggregate forecast capital expenditure exceeds the base capex project threshold;¶ included in a programme whose aggregate forecast capital expenditure exceeds the base capex programme threshold; or ¶ <#>a non-transmission solution;¶

Deleted: with respect to one or more closing RAB values

Deleted: major capex efficiencies means monetary amount equivalent to Transpower's total net cost efficiencies during the **regulatory period** in question reflected in its major capex for major capex projects commissioned during that period major capex efficiency adjustment means monetary amount of after-tax economic gain to take account of major capex efficiencies:

Deleted: the rate determined

Deleted: in respect of a regulatory period, percentage of the major capex efficiencies recoverable by Transpower major capex project means a project of major capex undertaken to address or enable a specific investment need to be met, which may be either or both, a transmission investment or non-transmission solution;

major capex project outputs means the grid outputs applying in respect of a major capex project or staging project contained in a major capex proposal;

major capex project (staged) means a major capex project consisting of two or more projects and includes any major capex project that is a continuation of an existing major capex project (staged);

major capex proposal means <u>a written application to the Commission for approval of a major capex project or one or more staging projects of a major capex project (staged);</u>

major capex sunk costs adjustment means the amount calculated by the Commission as specified under clause 3.3.7;

maximum recoverable costs means maximum amount of major capex which is not included in a closing RAB value and is approved in respect of a non-transmission solution by the Commission, over the duration of the project, as recoverable costs;

measure of grid performance means measure that quantifies the level of service received by **consumers**;

modelled project has the meaning specified in clause D8(4);

N

 $\textbf{net electricity market benefit} \ \text{has the meaning specified in clause D2(2)}; \\$

new investment contract means contract for the provision of new **electricity transmission services** between **Transpower** and another person in respect of which-

- (a) the other person has agreed in writing (whether in the same contract or not) that the terms and conditions of the contract-
 - (i) are reasonable; or
 - (ii) reflect workable or effective competition for the provision of the **electricity transmission services**; or
- (b) **Transpower** demonstrates beyond a reasonable doubt that the terms and conditions of the contract were arrived at following a process that provided opportunities for-
 - affected customers to make or approve reasonable price-quality tradeoffs; and
 - (ii) the competitive provision of new **electricity transmission services** by parties other than **Transpower**;

Deleted: major capex overspend adjustment means monetary amount of after-tax economic loss to take account of any major capex in excess of the relevant major capex allowance;

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a transmission investment, including a variant on another transmission investment by virtue of a non-negligible change in the commissioning date assumption; or ¶

a non-transmission solution, including a variant on another non-transmission solution by virtue of a non-negligible change in the completion date assumption:

Deleted: major capex project output adjustment means monetary amount of after-tax economic loss to take account of deviation by Transpower from its major capex project outputs;¶

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Deleted: market development scenario means scenario described in clause D4(1)(a)(i):¶

market development scenario variation means scenario described in clause D4(1)(a)(ii);¶

Deleted: MED scenario means scenario described in clause D4(1)(b);¶ MED scenario variation means scenario described in clause D4(1)(c);¶

non-transmission solution means <u>an alternative to an investment in the **grid**, which is used by **Transpower** to-</u>

- (a) avoid or defer a transmission investment, where the transmission investment would be major capex; or
- (b) manage operational risks due to unavailability of **grid** assets during a **major** capex project;

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operating cost has the same meaning as defined in the Transpower Input Methodologies Determination 2010;

operating expenditure has the same meaning as defined in the Transpower Input Methodologies Determination 2010;

opex proposal means Transpower's written response to an ID determination or a \$ 53ZD notice requiring information on proposed operating expenditure in respect of the IPP for the next regulatory period;

Р

P50 means estimated <u>aggregate **project costs**</u>, where the probability of the actual <u>aggregate **project costs**</u>, being lower than that estimated is 50%;

policies means documented and **director** or management-approved short-term and long-term procedures, processes, strategies, guidelines, plans and approaches including those relating to-

- (a) asset management;
- (b) asset security;
- (c) augmentation and planning;
- (d) business cases, including cost-benefit analyses;
- (e) capital expenditure (e.g. capital expenditure approval and replacement);
- (f) condition monitoring and replacement;
- (g) corporate governance;
- (h) demand management;
- (i) disaster recovery;
- (j) energy supply and **consumer** growth forecasting;
- (k) information technology;
- (l) internal reviews;

Deleted: costs incurred by **Transpower-**¶

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<#>in relation to one or more of the following things:¶ <#>electricity generation;¶ <#>energy efficiency;¶ <#>demand-side management;¶ <#>local network augmentation;¶ <#>improvement to the systems and processes of the system operator; and ¶ <#>the provision of ancillary services; and ¶ <#>on a project that avoids or defers a transmission investment where the transmission investment would-¶ <#>be major capex; and¶ <#>satisfy the investment test if the relevant investment options consisted solely of those that are transmission investments:¶

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Deleted: performance-based measure means asset performance measure or measure of grid performance;¶

- (m) investment decision making and evaluation;
- (n) land and easement acquisition;
- (o) network spares;
- (p) prioritisation and options analysis;
- (q) procurement;
- (r) project management;
- (s) regulatory compliance;
- (t) risk management and assessment;
- (u) self insurance; or
- (v) site and line safety;

programme means-

- (a) 2 or more projects; or
- (b) 2 or more **projects** and expenditure activities,

within the same category of **capital expenditure** that are grouped together on the basis of having a common purpose;

project means temporary endeavour requiring concerted effort, which is undertaken to create defined outcomes;

project cost has the meaning specified in clause D4(2) and its quantum is calculated in accordance with clause D6(1);

proposed investment means the investment option that Transpower submits in a major capex proposal to the Commission-

- (a) for approval as a major capex project; or
- (b) as a major capex project (staged), seeking approval of one or more staging projects;

recovery scheme means specification for the systematic attribution of **maximum recoverable costs** to one or more **disclosure years**, including by way of formulae;

recoverable cost has the same meaning as defined in the Transpower Input Methodologies, Determination 2010;

regulatory period means the period to which an IPP determination relates;

Deleted: policies and processes adjustment means monetary amount of after-tax economic loss to take account of any base capex project or base capex programme-¶

<#>involving forecast capital expenditure of greater than \$20 million in respect of which the requirements of clause 3.2.1 were not met in all material respects: or <#>in respect of which Transpower has acted otherwise than in accordance with policies or processes specified in clause 3.2.2 except to the extent that the Commission is satisfied that it was appropriate for the relevant policies or processes not to have been followed for the project or programme;¶ principal determination means the Transpower Capital Expenditure Methodology Determination [2012] NZCC 2 as in effect immediately before this determination comes into force;¶

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RCP1 means regulatory period commencing on 1 April 2011 and ending on 31 March 2015;

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regulatory templates means tables of information requirements regarding **Transpower's base capex**, whether actual or proposed, and which-

- (a) must at least-
 - (i) specify base capex categories; and
 - (ii) require quantitative actual and forecast information in respect of those categories;
 - (iii) require quantitative actual and forecast information in respect of identified programmes; and
- (b) may contain instructions on how they must be completed;

relevant demand and generation scenarios has the meaning specified in clause D3(4);

revenue-linked grid output measure means grid output measure to which the grid output mechanism applies;

S

SCADA means systems for monitoring and controlling, from one location, equipment in different locations, using computing technologies;

s 53ZD notice means a notice issued by the **Commission** to **Transpower** under section 53ZD of the **Act**;

sensitivity analysis has the meaning specified in clause D7;

services has the same meaning as defined in s 2 of the Act;

staging project means a project within a major capex project (staged);

standard incentive rate base capex allowance means the amount subject to the base capex standard incentive rate as determined under clause 2.2.2(1)(a) and as adjusted in accordance with the base capex allowance adjustment mechanism;

standard incentive rate base capex expenditure adjustment means the amount calculated as specified in clause B1(2);

supply has the same meaning as defined in section 2 of the **Act**, and **supplied** must be construed accordingly;

system operator has the same meaning as defined in section 5 of the Electricity Industry Act 2010;

Deleted: remainder period means period from disclosure year 2013 to disclosure year 2015 inclusive:¶

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<u>transmission alternative</u> means an alternative to an investment in the <u>grid</u>, which is used by **Transpower** to-

- (a) avoid or defer a need for a transmission investment which would be base capex;
- (b) manage operational risks due to unavailability of **grid** assets during a **base capex project**; or
- (c) manage operational risks or network constraints due to temporary unavailability of **grid** assets;

transmission investment means investment in the **grid** or expenditure facilitating or enabling future investment in the **grid**;

Transpower has the same meaning as defined in s 54B of the **Act**;

V

value of commissioned asset has the same meaning as defined in the Transpower Input Methodologies, Determination 2010;

value of expected unserved energy means-

- (a) the appropriate cost per megawatt hour specified in or under clause 4 of Schedule 12.2 to the **code**; or
- (b) another appropriate cost per megawatt hour,

of expected unserved energy (as 'expected unserved energy' is defined in the code);

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working day has the same meaning as defined in section 2 of the Act.

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PART 2 PROCESSES PRIOR TO A REGULATORY PERIOD

SUBPART 1 Integrated transmission plan

2.1.1 Integrated transmission plan

- (1) **Transpower** must submit an **integrated transmission plan** in accordance with Part 7 to the **Commission** no later than the first **working day** in the December sixteen months before the start of a **regulatory period**.
- (2) **Transpower** must <u>publish</u> the information submitted to the **Commission** under subclause (1) on its website.

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SUBPART 2 Base capex

2.2.1 Required information

- (1) In the period commencing on the first working day in the November which is twentynine months before the start of a regulatory period, and terminating on the last working
 day in the February which is twenty-six months before the start of a regulatory period,
 the Commission and Transpower must use reasonable endeavours to agree, in respect
 of that next regulatory period-
 - (a) the form and content of regulatory templates; and
 - (b) the categories or criteria to be used to define identified programmes.
- (2) Where no agreement is reached on one or more of the matters, specified in subclause (1), the Commission must, having regard to the views Transpower expressed during the period referred to in subclause (1), specify those matters and notify Transpower thereof by the last working day in the March, which is twenty-five months before the start of a regulatory period.
- (3) **Transpower** must submit a **base capex proposal** <u>prepared</u> in accordance with Part 7 to the **Commission** no later than the first **working day** in the December <u>which is</u> sixteen months before the start of a **regulatory period**.

2.2.2 Commission evaluation and decisions

- (1) No later than the last working day in the August which is eight months before the start of a regulatory period, the Commission will, subject to subclause (9), determine in respect of that regulatory period, for the purposes of making an IPP determination-
 - (a) a standard incentive rate base capex allowance and, if applicable, a low incentive rate base capex allowance for each disclosure year of the regulatory period;

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(b) in accordance with clauses A5 and A6, the following as revenue-linked grid output measures:

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- (i) one or more asset performance measures;
- (ii) one or more measures of grid performance;
- (iii) <u>if</u> Transpower, requests, one or more asset capability grid output measures; and
- (iv) at Transpower's request, any other grid output measure;
- (c) one or more asset health grid output measures which may be either revenue-linked grid output measures in accordance with clauses A5 and A6, or grid output measure(s) that are not linked to revenue in accordance with clause A5;
- (d) in accordance with clause A7, in respect of each **revenue-linked grid output measure**, a-
 - (i) **cap**;
 - (ii) collar;
 - (iii) grid output incentive rate; and
 - (iv) grid output target

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- (2) When determining the base capex allowances in subclause (1)(a), the Commission will also specify the-
 - (a) low incentive rate base capex projects if it determines a low incentive rate base capex allowance;
 - (b) forecast CPI used to determine the base capex allowances;
 - (c) forecast FX rates used to determine the base capex allowances; and
 - (d) amount or percentage of the base capex allowances to which the forecast FX rates may apply.
- (3) A base capex project or base capex programme may be specified as a low incentive rate base capex project by the Commission if it considers that it will require capital expenditure greater than \$20 million.
- (4) When determining the revenue-linked grid output measures in subclause (1)(b), the Commission may also determine in accordance with clause A5 one or more of the same types of grid output measures that are not linked to revenue.
- (5) When determining the standard incentive rate base capex allowance the Commission may specify a base capex allowance adjustment mechanism.

- (6) At the same time as determining the matters in subclause (1), the Commission may also determine in respect of the regulatory period, for purposes of making an IPP determination, base capex projects or base capex programmes that are listed projects.
- (7) A base capex project or base capex programme may only be determined to be a listed project by the Commission if it is a base capex project or base capex programme:
 - (a) that the **Commission** considers:
 - (i) will require capital expenditure greater than \$20 million;
 - (ii) is reasonably required by **Transpower**; and
 - (iii) at least one asset is likely to have a commissioning date in the regulatory period;
 - (b) for which the base capex forecast to be incurred is in relation to asset replacement, asset refurbishment, or both asset replacement and asset refurbishment;
 - (c) for which a commencement date within the **regulatory period** is anticipated but cannot be forecast with specificity; and
 - (d) that is not already accommodated in the base capex allowances for the regulatory period.
- (8) Where the **Commission** considers that, for the purpose of deciding the matters specified in this clause, it requires further information from_Transpower, the **Commission** will request Transpower to provide, such information by a reasonable future date.
- (9) The Commission will only make the determinations specified in this clause after-
 - (a) consulting in any manner specified in clause 8.1.1; and
 - (b) evaluating in accordance with Part 6-
 - (i) the base capex proposal; and
 - (ii) any further information received pursuant to subclause (8).
- (10) The **Commission** will publish its decisions under this clause as soon as reasonably practicable after they have been made.

Deleted: <#>in accordance with clause A4, none, one or more of each of the following grid output measures to which the grid output mechanism will not apply:¶ <#>performance-based measures; ¶ <#>asset capability grid output measures; and¶

<#>asset health grid output measures.¶
<#>In its decision specifying the matters specified in subclause (1), the Commission will also specify.¶
<#>forecast CPI used to determine the base capex allowances.¶

<#>forecast FX rates used to determine the base capex allowances; and¶
<#>amount or percentage of the base capex allowances to which the forecast FX rates may apply.¶

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<#>Major capex incentive rate¶

<#>The major capex incentive rate in respect of RCP1 is specified in the IPP determination applying to RCP1.¶

<#>The Commission will, by the last working day in the August before the start of a regulatory period which is not RCP1 determine the quantum of the major

PART 3 PROCESSES DURING A REGULATORY PERIOD

SUBPART 1 Integrated transmission plan

3.1.1 <u>Integrated transmission plan</u>

- (1) Subject to subclause (2), **Transpower** must, by the last **working day** of September of each **disclosure year**, submit to the **Commission**-
 - (a) ITP supporting documents; and
 - (b) an updated ITP narrative that takes account of-
 - (i) any material changes to matters covered in the ITP narrative most recently submitted to the **Commission**; and
 - (ii) the content of the ITP supporting documents.
- (2) Subclause (1) does not apply in respect of the <u>second last and</u> last **disclosure years** commencing in a **regulatory period**.
- (3) **Transpower** must <u>publish</u> a copy of the information submitted to the **Commission** under subclause (1) on its website.

SUBPART 2 Base capex

- 3.2.1 Base capex projects or programmes with forecast cost of greater than \$20 million

 In respect of a base capex project or base capex programme involving forecast capital expenditure of greater than \$20 million Transpower must, prior to undertaking the project or programme, undertake-
 - (a) a cost-benefit analysis consistent with determining **expected net electricity market benefit**; and
 - (b) consultation with interested persons in accordance with clause 8.1.2.

3.2.2 Base capex annual adjustments

- (1) By the end of the month following the month in which **Transpower** provides its **annual** compliance statement to the Commission for a disclosure year, subject to subclauses (2) and (3), the Commission will calculate for that disclosure year a-
 - (a) base capex expenditure adjustment; and
 - (b) grid output adjustment.
- (2) Where the **Commission** considers that it requires further information for the purpose of calculating the <u>adjustments</u> in subclause (1), <u>it</u> will request **Transpower** to provide such information by a <u>reasonable future</u> date.

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In respect of each base capex project or base capex programme, Transpower must act in accordance with each relevant policy and process as specified in its base capex proposal.

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- (3) The **Commission** will not calculate the <u>adjustments in subclause (1)</u> until after having evaluated relevant information disclosed pursuant to:
 - (a) a request made pursuant to subclause (2):
 - (b) an ID determination; or
 - (c) a s 53ZD notice,
- (4) The **Commission** will publish its decision <u>under this clause</u> as soon as reasonably practicable.
- 3.2.3 Approval of base capex for listed project in addition to the base capex allowances
- (1) Transpower may submit, no later than the last working day in the June twenty-two months before the end of a regulatory period, an application in respect of a listed project for approval of additional base capex, where expenditure is to be incurred after the date of application on assets that are forecast to be commissioned within that regulatory period in respect of a listed project,
- (2) **Transpower's** application under subclause (1) must include:
 - a description of the reasons for carrying out the listed project, supported by relevant technical information, including evidence of the current and future need for the applicable assets by reference to the <u>relevant</u> demand and generation scenarios;
 - (b) consideration of alternative options for carrying out the listed project, including non-replacement and demolition, enhancement or development of alternative assets, and transmission alternatives;
 - (c) intended scope of the **listed project**, including specification of the **grid outputs** that apply in respect of the **listed project**;
 - all relevant technical and costing information used to estimate both the cost of the listed project and alternative options, including details on risk allowances and contingencies;
 - (e) estimated cost of the listed project broken down into year by year figures in expected disclosure year of expenditure, and the assumptions used to derive the estimated cost;
 - a cost-benefit analysis in accordance with clause 3.2.1(a), including a sensitivity analysis and reasons for selecting the variables of the sensitivity analysis;

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- (g) if Transpower requests the base capex low incentive rate to apply to the additional base capex, information demonstrating that the listed project is still expected to require capital expenditure greater than \$20 million and information on the extent to which the factors set out in clause A4 are applicable;
- (h) evidence of consultation with interested persons in accordance with clause 3.2.1(b);
- evidence that its Board of Directors has approved the listed project as a
 base capex project or base capex programme and details of the quality
 assurance processes followed in respect of the Board's approval of the listed
 project; and
- (j) certification of the application in accordance with clause 9.1.2.
- (3) Where the **Commission** considers that, for the purpose of deciding whether to approve **base capex** in respect of a **listed project** it requires further information that provided in **Transpower's** application, the **Commission** will request **Transpower to** provide such information by a reasonable future date.
- (4) The Commission may in addition to the base capex allowances, at its discretion, determine an approved amount of base capex in respect of a listed project for disclosure years in a regulatory period, following evaluation of Transpower's application, in accordance with:
 - (a) the consultation requirements in clause 8.1.1; and
 - (b) the criteria in clause 6.1.1(1), clause 6.1.1(2) and clause A2 that would apply if this application was part of the base capex proposal and the listed project were an identified programme,
- (5) In any decision to approve additional base capex in respect of a listed project, the Commission will-
 - (a) apply the **forecast CPI** used to determine the **base capex allowances** for that **regulatory period** to the approved additional **base capex** for the **listed project**;
 - (b) apply the forecast FX rates used to determine the base capex allowances for that regulatory period to the approved additional base capex for the listed project;
 - specify the amount or percentage of the additional base capex for the listed project to which the forecast FX rates may apply;
 - (d) <u>determine whether the base capex standard incentive rate or base capex</u> low incentive rate applies to the additional base capex.

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(6) The **Commission** will publish its decision on **Transpower's** application for approval of **base capex** in respect of a **listed project** as soon as reasonably practicable.

SUBPART 3 Major capex projects

- 3.3.1 Notification of proposed investments
- (1) Transpower must notify the Commission of its intention to plan a major capex project that may become a proposed investment.
- (2) Transpower's notification under subclause (1) must include the following detail about the major capex project if it is planned to be a major capex project (staged)-
 - (a) all the proposed staging projects being planned; and
 - (b) if it is a continuation of an existing major capex project (staged), all related previously approved staging projects and whether those staging projects have been completed.
- (3) The Commission and Transpower must, in the two-month period following a notification, under subclause (1) use reasonable endeavours to agree in respect of that major capex project-
 - (a) a consultation programme for a **transmission investment** or **nontransmission solution**, in accordance with clause 8.1.3;
 - (b) an approach to ensure appropriate consideration of non-transmission solutions to meet the investment need giving rise to the major capex project in accordance with clause 8.1.3;
 - (c) an application submission date; and
 - (d) an approval timeframe.
- (4) Where the **Commission** and **Transpower** have not agreed on each of the matters in subclause (3) within the two month period following a notification under subclause (1), the **Commission** must, after considering the views expressed by **Transpower**, specify those matters that have not been agreed within two weeks of the expiry of the two month period.
- (5) The consultation programme referred to in subclause (3)(a) may also include any consultation processes that the **Commission** intends to follow.
- (6) The **Commission** and **Transpower** must publish the matters agreed under subclause (3) or specified under subclause (4) as soon as reasonably practicable.

- (7) The Commission and Transpower must regularly review whether the matters published under subclause (6) (or published in amended form under subclause (8)) remain appropriate and reasonable and the Commission may, after considering Transpower's views, amend any of those matters to ensure that they remain appropriate and reasonable.
- (8) Where the **Commission** materially amends any of the matters under subclause (7), the **Commission** and **Transpower** must publish the amended matters or a summary of them as soon as reasonably practicable.
- (9) Transpower must consult interested persons in accordance with the published consultation programme and follow the published approach for consideration of nontransmission solutions.
- 3.3.2 Capital expenditure that can be recovered
- (1) Major capex projects that are not major capex projects (staged) must be approved by the Commission before Transpower can recover any capital expenditure relating to such major capex projects.
- (2) Where a major capex project is a major capex project (staged), Transpower may only recover capital expenditure relating to approved staging projects of that major capex project.
- 3.3.3 Major capex proposals
- (1) Transpower must submit a major capex proposal to the Commission when it seeks approval for-
 - (a) a major capex project that is not major capex projects (staged); or
 - (b) one or more staging projects of a major capex projects (staged).

For the avoidance of doubt, any application by **Transpower** to the **Commission** for approval of subsequent stages of a **major capex project (staged)** must be made in a new **major capex proposal**.

- (2) Where Transpower seeks approval of one or more staging projects-
 - (a) the aggregate forecast capital expenditure and forecast maximum

 recoverable costs for all staging projects that comprise the major capex
 project (staged) must exceed the base capex threshold;
 - (b) the forecast capital expenditure and forecast maximum recoverable costs
 for a staging project for which approval is sought need not exceed the base
 capex threshold.
- (3) A major capex proposal may be submitted at any time during a regulatory period.

3.3.4 Commission rejection of a major capex proposal

The Commission may reject a major capex proposal where-

- (a) Transpower has not complied with the requirements specified in clause 3.3.1; or
- (b) the major capex proposal does not comply with clause 7.4.1.
- 3.3.5 Commission decisions on a major capex project or staging projects
- (1) If the Commission does not reject the major capex proposal under clause 3.3.4, it must either-
 - (a) approve-
 - (i) the major capex project if it is not a major capex project (staged); or
 - (ii) one or more staging projects if the major capex project is a major capex project (staged); or
 - (b) decline-
 - (i) the major capex project if it is not a major capex project (staged); or
 - (ii) one or more staging projects if the major capex project is a major capex project (staged).
- (2) For the avoidance of doubt, where **Transpower** has sought approval for a **major capex**project, the **Commission** may approve such project as a major capex project even where the major capex allowance it determines is below the base capex threshold.
- (3) When evaluating a new major capex proposal seeking approval for a staging project that is a continuation of an existing major capex project (staged), the Commission may have regard to the information in the previous major capex proposal relating to the major capex project (staged).
- (4) Where the Commission considers that it requires further information to decide whether to approve or decline a major capex project or staging project, it will request Transpower to provide such information by a reasonable future date.
- (5) The Commission may only decide to approve or decline a major capex project or staging project after-
 - (a) consulting in the manner specified in clause 8.1.1; and
 - (b) having evaluated, in accordance with Part 6 and subject to subclause (3)-
 - (i) the major capex proposal; and
 - (ii) any further information received pursuant to subclause (4).
- (6) Where the Commission approves a major capex project or staging project the-
 - (a) maximum recoverable costs;

- (b) recovery scheme;
- (c) major capex project outputs;
- (d) approval expiry date;
- (e) commissioning date assumption; and
- (f) completion date assumption,

will be those specified by Transpower for the major capex project or staging project.

- (7) Where the Commission approves a major capex project or staging project the-
 - (a) major capex allowance;
 - (b) major capex incentive rate; and
 - (c) exempt major capex,

will be those determined by the **Commission** for the **major capex project** or **staging project**.

- (8) The **Commission** will publish its decisions as soon as reasonably practicable after they have been made.
- 3.3.6 Amendments to approved major capex projects
- (1) The **Commission** may, on **Transpower's** application, amend one or more of the following matters previously approved under clause 3.3.5-
 - (a) maximum recoverable costs;
 - (b) recovery scheme;
 - (c) approved major capex project outputs; and
 - (d) approval expiry date.
- (2) Where **Transpower** makes an application under subclause (1)-
 - (a) Transpower must comply with the requirements in clause 7.4.2;
 - (b) the **Commission** and **Transpower** must use reasonable endeavours to agree
 an **approval timeframe** in respect of the application within two weeks from
 the date of receipt of the application; and
 - (c) where the **Commission** and **Transpower** have not agreed an **approval timeframe** within the two weeks period, the **Commission** must, after

 considering **Transpower's** views and having regard to its obligations in

 subclauses (3) to (5), specify the **approval timeframes** within two weeks of the expiry of the two week period.

- (3) The **Commission** must make reasonable efforts to determine any amendments within the following timeframes-
 - (a) for amendments to an **approval expiry date**, by the **approval expiry date** previously approved; and
 - (b) for amendments to any other matter specified in subclause (1), by the end of the second month after the month in which Transpower provides its annual compliance statement to the Commission for the disclosure year in which the commissioning date or completion date occurs.
- (4) Where the **Commission** considers that it requires further information to decide whether to make an amendment, it will request **Transpower** to provide such information by a reasonable future date.
- (5) The **Commission** may not make an amendment until it has evaluated, in accordance with Part 6-
 - (a) the application received from Transpower under subclause (1); and
 - (b) any information received pursuant to subclause (4).
- (6) Where an amendment is made by the Commission the amended-
 - (a) maximum recoverable costs; and
 - (b) recovery scheme;

will be those specified by the **Commission** in its decision making the amendment.

- (7) Where an amendment is made by the **Commission** the amended-
 - (a) major capex project outputs; and
 - (b) approval expiry date,

will be those proposed by Transpower in its amendment application.

- (8) Where the Commission makes an amendment to the major capex project outputs, the Commission may, at its discretion, make commensurate amendments to the major capex allowance and exempt major capex.
- (9) Where the **Commission** makes any amendment, the **Commission** may also make amendments to the-
 - (a) commissioning date assumption; and
 - (b) completion date assumption.

- (10) The **Commission** will publish its decisions as soon as reasonably practicable after they have been made.
- 3.3.7 Major capex sunk costs adjustment
- (1) The Commission may, at its discretion, on Transpower's application, calculate a major capex sunk costs adjustment where Transpower has incurred capital expenditure in relation to an approved major capex project, but prior to the commissioning date or completion date of the approved major capex project-
 - (a) Transpower has decided not to proceed with the approved major capex project; or
 - (b) a relevant approval expiry date has passed.
- (2) Where **Transpower** makes an application it must comply with the requirements in clause 7.4.3.
- (3) The major capex sunk costs adjustment is equal to the amount of the major capex incurred by Transpower in respect of the approved major capex project in question which, having regard to the factors listed in clause 6.1.1(6), the Commission considers should reasonably be recovered by Transpower under an IPP determination.
- (4) Where the **Commission** considers that it requires further information to decide whether to calculate a **major capex sunk costs adjustment**, it will request **Transpower** to provide such information by a reasonable future date.
- (5) The Commission may not decide whether to calculate a major capex sunk costs adjustment until it has evaluated, in accordance with Part 6-
 - (a) the application; and
 - (b) any information received pursuant to subclause (4).
- (6) Where the **Commission** calculates a **major capex sunk costs adjustment** in respect of an **approved major capex project** any approval of the **major capex project** or **staging project**, as applicable, is deemed to be revoked.
- (7) The **Commission** will publish its decision as soon as reasonably practicable.
- 3.3.8 Decision on approved major capex project outputs after commissioning or completion
- (1) The Commission will decide, by the end of the month following the month in which Transpower provides its annual compliance statement to the Commission for a disclosure year, whether the approved major capex project outputs were met in respect of each approved major capex project having a commissioning date or completion date in that disclosure year.

- (2) The **Commission** may not decide whether the **approved major capex project outputs** were met until it has evaluated, to the extent relevant to the decision-
 - (a) the information disclosed by **Transpower** in respect of the last completed disclosure year pursuant to either or both of-
 - (i) an ID determination; or
 - (ii) a s 53ZD notice; and
 - (b) any information received pursuant to subclause (3).
- (3) Where the **Commission** considers that it requires further information to decide whether **approved major capex project outputs** were met, it will request **Transpower** to provide such information by a reasonable future date.
- (4) The **Commission** will publish its decisions as soon as reasonably practicable.
- 3.3.9 Major capex expenditure and output adjustment
- (1) If an approved major capex project is a-
 - (a) transmission investment, and the last asset delivered by the project has a commissioning date in a disclosure year; or
 - (b) non-transmission solution, and it has a completion date in a disclosure year.

then the **Commission** will calculate, by the end of the month following the month in which **Transpower** provides its **annual compliance statement** to the **Commission** for the **disclosure year**, the amount of the **major capex expenditure and output adjustment** in respect of that **approved major capex project**.

- (2) The Commission will not calculate the adjustment until after having considered-
 - (a) the information relevant to the calculations disclosed by **Transpower** in respect of the last completed **disclosure year** pursuant to either or both of-
 - (i) an **ID determination**; or
 - (ii) a s 53ZD notice;
 - (b) any decisions under clause 3.3.6 relevant to the calculations;
 - (c) any decisions under clause 3.3.8, and
 - (d) any information received pursuant to subclause (3).
- (3) Where the **Commission** considers that, for the purpose of making any of the calculations referred to in subclause (1), it requires further information than that referred to in subclauses (2)(a), (b) and (c) the **Commission** will request **Transpower** to provide such information by a reasonable future date.

The **Commission** will publish its decisions as soon as reasonably practicable after they have been made. and¶

and approval timeframes¶ <#>Transpower must notify the Commission of its intention to plan a major capex project that Transpower considers may become a proposed investment.¶ <#>In the two month period following such notification, the Commission and **Transpower** must use reasonable endeavours to agree, in respect of that major capex project-¶ <#>in accordance with clause 8.1.3-¶ <#>a consultation programme for a transmission investment or nontransmission solution; and ¶ <#>an approach to ensure appropriate consideration of non-transmission solutions to meet the investment need; <#>approval timeframes.¶ <#>For the purpose of assisting interested persons, the **Commission** may include in the consultation programme referred to in subclause (2)(a)(i) such consultation processes that the Commission intends to follow, but **Transpower** is not required to agree such processes.¶ <#>Where no agreement is made on one or more of the things referred to in subclause (2), the Commission will, by one week after the end of the period referred to in subclause(2), having regard to the views expressed by Transpower during that period, specify whichever of the following has not been agreed:¶ <#>a consultation programme in respect of a transmission investment or nontransmission solution, in accordance with clause 8.1.3; ¶ <#>an approach to ensure appropriate consideration of non-transmission solutions to meet the investment need, in accordance with clause 8.1.3; and ¶ <#>approval timeframes.¶ <#>The Commission and Transpower must publish the- ¶ . <#>consultation programme; ¶ <#>approach for consideration of nontransmission solutions:and¶ <#>approval timeframes,¶ <#>as soon as reasonably practicable.¶ <#>The Commission and Transpower must-¶ <#>regularly review the published- ¶ <#>consultation programme; and \P <#>approach for consideration of nontransmission solutions; and ¶ <#>approval timeframes,¶ <#>as to whether they remain appropriate and reasonable; and ¶ <#>the Commission may amend one or more of those things to ensure that they

remain appropriate and reasonable.¶ ...

PART 4 [DELETED]

adjustment after regulatory period¶ <#>At Transpower's application, the Commission will calculate, by the last working day of the first November after the regulatory period, subject to subclause (2) and in accordance with Part 6, the quantum of the major capex efficiency adjustment in accordance with clause B7.¶ <#>For the purpose of subclause (1), the Commission will not make the calculations referred to in that subclause- ¶ <#>unless Transpower has disclosed information relevant to those calculations in respect of the last completed regulatory period pursuant to either or both of-¶ <#>an ID determination: and¶ <#>a notice made under s53ZD of the Act; and¶ <#>until after having evaluated- \P <#>the information contained in the application;¶ <#>the information referred to in paragraph (a); and \P <#>any material received pursuant to subclause (3).¶ <#>For the purpose of subclause (2)(b)(iii), where the Commission considers that it requires further information of Transpower for the purpose of calculating the quantum of a major capex efficiency adjustment, the Commission will request Transpower to provide such information by a date specified by the Commission such that it is reasonable for Transpower to comply with. <#>The Commission will publish its decisions under this clause as soon as reasonably practicable.¶ <#>Major capex expenditure adjustment ¶ <#>The Commission will calculate, by the last working day of the first November after the regulatory period, subject to subclause (2), the quantum of the major capex expenditure adjustment.¶ <#>The Commission will not calculate the adjustment in subclause (1) until after having evaluated relevant information disclosed pursuant to: ¶ <#>a request made pursuant to subclause (3); ¶ <#>an ID determination; or¶ <#>a s53ZD notice.¶ <#>Where the Commission considers that it requires further information for the purpose of calculating the adjustment in subclause (1) the Commission will request Transpower to provide such information by a reasonable future date.¶ <#>The Commission will publish its decision under this clause as soon as

reasonably practicable.¶

PART 5 CONSEQUENCES OF COMMISSION NOT COMPLYING WITH TIMEFRAMES

5.1.1 Consequences of timeframes not being met by Commission

- (1) None of the **Commission's** functions or decisions described in this determination are invalidated on account of any **Commission** failure to meet-
 - (a) timeframes applying to the Commission specified in this determination; or
 - (b) approval timeframes.
- (2) Notwithstanding subclause (1), the **Commission** will, as soon as reasonably practicable after it believes that a timeframe applying to the **Commission**-
 - (a) is not likely to be met; or
 - (b) has not been adhered to,

notify **Transpower** and, where relevant, interested persons, of the new timeframe that applies.

PART 6 COMMISSION EVALUATION OF MATTERS RELATING TO CAPITAL EXPENDITURE

6.1.1 Evaluation criteria

- (1) In evaluating anything pursuant to this Part, the **Commission** may-
 - (a) take into account-
 - (i) the views of any person the **Commission** has consulted pursuant to clause 8.1.1; and
 - (ii) any other information it considers relevant; and
 - (b) engage any appropriately qualified person to assist the **Commission** with its evaluation.
- (2) The **Commission** will apply the following criteria in evaluating **base capex proposals**, **major capex proposals** and applications under clause 3.3.6:
 - (a) whether what is proposed is consistent with the **input methodology** in this determination and, where relevant, the Transpower Input Methodologies.

 Determination 2010;
 - (b) the extent to which what is proposed will promote the purpose of Part 4 of the **Act**; and
 - (c) whether, the data, analysis, and assumptions underpinning what is proposed are fit for the purpose of the **Commission** exercising its powers under Part 4 of the **Act**, including consideration as to the accuracy and reliability of data and the reasonableness of assumptions and other matters of judgement.
- (3) The Commission will also evaluate a base capex proposal in accordance with Schedule A.
- (4) The **Commission** will also evaluate a **major capex proposal** in accordance with Schedule
- (5) The **Commission** will also evaluate an application under clause 3.3.6 in accordance with the following criteria:
 - (a) the extent to which each key factor relevant to the proposed amendment-
 - (i) was reasonably foreseeable by Transpower before the major capex project was approved by Commission; and
 - (ii) was or is within Transpower's control;
 - (b) in relation to each key factor outside **Transpower's** control
 - the reasonableness of any applicable mitigation strategy devised by Transpower; and

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- (ii) the reasonableness and extent of mitigation actions taken by **Transpower**;
- (c) the extent to which the major capex project's expected net electricity market benefit would be materially lower as a result of the amendment than when it was approved; and
- (d) in respect of a major capex project that has already commenced, the extent to which Transpower has incurred capital expenditure by the date of the application.
- (6) The Commission will also evaluate an application under clause 3.3.7 relating to the calculation of a major capex sunk costs adjustment in accordance with the following criteria:
 - (a) the reasons and key factors that resulted in **Transpower** applying for the **major capex sunk costs adjustment**;
 - (b) in relation to each such key factor, whether it-
 - (i) was reasonably foreseeable by Transpower before the major capex project was approved by the Commission; and
 - (ii) was or is within **Transpower's** control;
 - (c) in relation to each key factor outside Transpower's control, the-
 - (i) reasonableness of any applicable mitigation strategy devised by **Transpower**; and
 - (ii) reasonableness and extent of mitigation actions taken by **Transpower**;
 - (d) the reasonableness of the progress of the major capex project, including details of-
 - (i) planning processes undertaken;
 - (ii) resource management consents, other regulatory consents, and property rights and access rights obtained;
 - (iii) construction and labour contracts and arrangements made;
 - (iv) construction completed;
 - (v) testing undertaken; and
 - (vi) approved major capex project outputs delivered; and
 - (e) the reasonableness of the **major capex** incurred and the extent of the forecast **major capex** yet to be incurred.

Deleted: <#>The Commission will also evaluate major capex efficiencies for the purpose of calculating a major capex efficiency adjustment by taking into account-¶ <#>changes in forecast aggregate capital expenditure during the design and build phases of the major capex project in question;¶ <#>contractual arrangements, including the reasonableness of provisions relating to the sharing of risk between Transpower and its contractors; and¶ <#>in relation to a key factor outside Transpower's control, the-¶ <#>reasonableness of any applicable mitigation strategy devised by Transpower; <#>reasonableness and extent of mitigation actions taken by Transpower.¶

PART 7 INFORMATION REQUIREMENTS APPLYING TO TRANSPOWER

SUBPART 1 General information requirements

7.1.1 Format of information

- (1) This clause applies to all information provided by **Transpower** pursuant to this Part.
- (2) All significant financial and numerical data must be provided in an electronic Microsoft Excel file capable of a 'copy and paste' function being applied to it.
- (3) All other information must be provided in an electronic Microsoft Word, Microsoft Excel or Adobe PDF file capable of a 'copy and paste' function being applied to it.
- (4) Information provided must be accompanied by an index that-
 - (a) specifies the reference in this determination to the relevant information requirement;
 - (b) succinctly describes each relevant information requirement; and
 - (c) provides a reference to the place or places in the submitted document or collection of documents where a response to each relevant information requirement is provided.
- (5) Where data is provided on or derived from a spreadsheet, and has been computed or derived from other values in the spreadsheet through the use of formulae, all underlying formulae must be accessible or provided, as the case may be.

7.1.2 Information claimed to be confidential

- (1) Where **Transpower** considers that it has a right to confidentiality in any information it provides the **Commission** pursuant to this Part and it does not waive that right, it must-
 - (a) include that information in an appendix; and
 - (b) clearly mark it as confidential.
- (2) For the avoidance of doubt-
 - (a) nothing in subclause (1) prevents the **Commission** publishing such information in respect of which it considers **Transpower** has no right to confidentiality; and
 - (b) nothing in paragraph (a) affects **Transpower's** rights or remedies for breach of any right to confidentiality.

Deleted: <#>Information must be provided in accordance with the **input methodology** in this determination.¶

7.1.3 Omission of required information

Where **Transpower** provides the **Commission** with any **document** under this determination that omits any required information, the **Commission** may treat that **document** as compliant with the requirement in question where that **document** contains a reasonable explanation for its omission.

SUBPART 2 Integrated transmission plan

7.2.1 Integrated transmission plans

An integrated transmission plan must contain the information specified in clause E1.

SUBPART 3 Base capex

7.3.1 Base capex proposals

- (1) A base capex proposal must-
 - (a) contain completed-
 - (i) regulatory templates agreed pursuant to clause 2.2.1(1); or
 - (ii) regulatory templates specified pursuant to clause 2.2.1(2);
 - (b) comply with Schedule F; and
 - (c) contain the certificates specified in clause 9.1.1.
- (2) For the purpose of subclause (1)(a), the **regulatory templates** must specify **base capex categories**.
- (3) A requirement of Schedule F may be met by **Transpower** by providing a reference to information published in another **document**, such as the **documents** specified in clauses E3(a) or E3(b), provided that-
 - (a) the reference clearly and succinctly provides the required information, without the need for additional analysis, explanation or interpretation; and
 - (b) in respect of each **document** relied upon, an index is provided stating the
 - reference to the relevant requirement or requirements of Schedule F; and
 - (ii) precise reference or references within the **document** relied upon.
- (4) For the avoidance of doubt, one physical **document** may contain more than one of the certifications specified in clause 9.1.1.

SUBPART 4 Major capex

7.4.1 Major capex proposals

- (1) A major capex proposal must-
 - (a) comply with Schedule G; and
 - (b) contain the certificates specified in clause 9.2.1.
- (2) The number of **investment options** contained in a **major capex proposal** must be appropriate given the magnitude of the estimated <u>expenditure</u> and the complexity of the **investment need** associated with the **proposed investment**.

(3) With respect to each **investment option** described in such a proposal, the-

- (a) specificity of information; and
- (b) rigour and comprehensiveness of the analysis,

must be commensurate with the estimated expenditure and complexity of that option.

(4) For the avoidance of doubt, one physical **document** may contain more than one of the certifications specified in clause 9.2.1.

7.4.2 Amendment applications for approved major capex projects

- (1) An application under clause 3.3.6(1)(a) to 3.3.6(1)(c) must be received by the Commission by the date on which Transpower provides its annual compliance statement to the Commission for the disclosure year in which the commissioning date or completion date of the approved major capex project in question occurs.
- (2) An application under clause 3.3.6(1)(d) must be received by the **Commission** no later than 6 weeks before the **approval expiry date**.
- (3) An application under-
 - (a) <u>clause</u> 3.3.6(1)(a) <u>and</u> 3.3.6(1)(b) <u>must contain the information specified in</u>
 Schedule H Division 1;
 - (b) clause 3.3.6(1)(c) must contain the information specified in Schedule H Division 2; and
 - (c) clause 3.3.6(1)(d) must contain the information specified in Schedule H Division 3.
- (4) An application under clause 3.3.6 must contain the certificates specified in clause 9.3.1.
- (5) For the avoidance of doubt, one physical **document** may contain more than one of the certifications specified in clause 9.3.1.

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Deleted: <#>clause 3.3.4(1)(a) must contain the information specified in Schedule H Division 1;¶ <#>clause 3.3.4(1)(b) or 3.3.4(1)(c) must contain the information specified in Schedule H Division 2;¶ <#>clause 3.3.4(1)(d) must contain the information specified in Schedule H Division 3; and¶ <#>clause 3.3.4(1)(e) must contain the information specified in Schedule H Division 3; and¶ <#>clause 3.3.4(1)(e) must contain the information specified in Schedule H Division 4.¶

7.4.3 Sunk costs applications

- (1) Subject to subclause (2), an application under clause 3.3.7 must-
 - (a) be received by the **Commission** no later than 6 weeks after the **approval expiry date**;
 - (b) contain the information specified in Schedule H Division 4; and
 - (c) contain the certificates specified in clause 9.3.1.
- (2) For the avoidance of doubt, one physical **document** may contain more than one of the certifications specified in clause 9.3.1.
- For the purpose of subclause (1), the **Commission**, at the request of **Transpower**, may extend the relevant timeframe for making an application where the **Commission** is satisfied that not all of the information relevant for its evaluation of an application is, or will be, available within the timeframe specified in subclause (1).

SUBPART 5 Expected benefits and impact of proposed expenditure on transmission charges

- 7.5.1 Explanation of the expected benefits of proposed expenditure and its impact on transmission charges
- (1) All major capex proposals and listed project applications must include-
 - (a) a description of the benefits the proposed expenditure is expected to deliver to **Transpower's** customers;
 - (b) to the extent reasonably possible, a quantitative estimate of the benefits the proposed expenditure is expected to deliver to **Transpower's** customers; and
 - (c) an estimate of the expected increase in **Transpower's** transmission charges

 due to the proposed expenditure, including estimated increases in
 transmission charges-
 - (i) per kilowatt of demand;
 - (ii) per kilowatt hours of energy supplied; and
 - (iii) for each affected grid exit point and grid injection point.
- (2) When Transpower submits a base capex proposal and opex proposal for a regulatory period to the Commission for the purpose of the Commission making an IPP determination, Transpower must submit to the Commission-
 - (a) a description of the benefits the proposed expenditure is expected to deliver to **Transpower's** customers;

- (b) an estimate of expected transmission charges allocated to each grid exit
 point and grid injection point based on the forecast transmission revenue for
 each year of the next **regulatory period**, being a year ending on 31 March;
 and
- (c) an estimate of expected changes in **Transpower's** transmission charges

 allocated to each grid exit point and grid injection point based on the
 forecast transmission revenue for the final year of the current **regulatory**period and for each year of the next **regulatory** period, being a year ending
 on 31 March; and
- (d) to the extent reasonably possible, for each year of the next **regulatory period**, being a year ending on 31 March, an estimated change of transmission charges-
 - (i) per kilowatt of demand; and
 - (ii) per kilowatt hours of energy supplied.

PART 8 CONSULTATION

8.1.1 Consultation by Commission

- (1) After receiving any base capex proposal, major capex proposal or application for approval of base capex in respect of a listed project, the Commission:
 - (a) must take all of the following actions-
 - (i) publish the relevant proposal or application;
 - (ii) make and publish a draft decision or decisions;
 - (iii) seek the written views of interested persons on anything so published; and
 - (iv) seek the written views of interested persons on others' submissions;and
 - (b) may seek the views of of any person the **Commission** considers has expertise on a relevant matter and hold a conference at which the views of some or all interested persons may be sought orally or in other forms of presentation.
- (2) The **Commission** may take none, any or all of the actions listed in subclause (1) in evaluating applications received from **Transpower** or making decisions or calculations under:
 - (a) clause 3.3.6;
 - (b) clause 3.3.7;
 - (c) clause 3.3.8; or
 - (d) clause 3.3.9.
- (3) Where the **Commission** takes any of the actions referred to in subclause (1), it may do so in accordance with such timeframes and processes as it considers appropriate.
- 8.1.2 <u>Base capex projects or programmes forecast to cost more than \$20 million</u>

 For the purpose of clause 3.2.1(b), consultation by **Transpower** with interested persons must be-
 - (a) of a scope commensurate with the proposed **project's** or **programme's** nature, complexity, impact and significance; and
 - (b) undertaken by **Transpower** acting in accordance with the **policies** and processes specified in its **base capex proposal**.

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subclauses (1)(a) and (2) are:¶
#>publish the relevant proposal or application;¶
#>seek the written views of interested persons on anything so published; and¶
#>seek the written views of interested persons on anything so published; and¶
#>seek the written views of interested persons on others' submissions.¶
#>The actions referred to by subclauses (1)(b) and (2) are:¶
#>seek the views of any person the Commission considers has expertise on a relevant matter; and¶
#>hold a conference at which the views of

some or all interested persons may be sought orally or in other forms of

presentation.¶

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8.1.3 Consultation on major capex projects

- (1) For the purpose of clause 3.3.1(3), subject to subclause (2)-
 - the consultation programme for a transmission investment or nontransmission solution must make provision for consultation by Transpower prior to submitting a major capex proposal on such matters specified in Schedule I as are applicable; and
 - (b) the approach to ensure appropriate consideration of non-transmission solutions must make provision for consultation by Transpower prior to submitting a major capex proposal on such matters specified in Schedule I Division 2 as are applicable.
- (2) For the purpose of subclause (1), the consultation programme and approach referred to-
 - (a) must have regard to:
 - (i) the complexity, nature and quantum of expenditure associated with the **major capex project**;
 - the likely costs and benefits arising from consultation, taking into account various stakeholder perspectives including **Transpower**, industry participants, proponents of **non-transmission solutions**, end users of electricity, and the **Commission**;
 - (iii) the urgency of the investment need that is the subject of the major capex project, including the duration of time available until a decision to proceed with options to address the investment need is required;
 - (iv) co-ordination between the consultation programme and the approach to considering non-transmission solutions for the major capex project in question;
 - (v) the extent and nature of any relevant prior consultations; and
 - (b) need not cover a matter specified in Schedule I where, on account of the **investment need** in question, the **Commission** is satisfied that its inclusion would be unreasonable in the circumstances.

PART 9 CERTIFICATION

SUBPART 1 Base capex proposals

9.1.1 <u>Director certification – base capex proposals</u>

In relation to all information provided in accordance with the **regulatory templates** and Schedule F with respect to a **base capex proposal**, no fewer than 2 **directors** of **Transpower** must each certify in writing, that having made all reasonable enquiries, it is his or her belief that-

- (a) the information was derived from and accurately represents, in all material respects, the operations of **Transpower**; and
- (b) the **base capex proposal** complies, in all material respects, with the requirements of clause 7.3.1.

SUBPART 1A Listed project applications

9.1.2 Chief executive officer certification – listed project applications

In relation to all information provided with respect to an application for approval of **base capex** in respect of a **listed project**, the chief executive officer of **Transpower** must certify in writing that, having made all reasonable enquiries, it is his or her belief that:

- (a) the information provided in **Transpower's** application to the **Commission** was derived from and accurately represents, in all material respects, the relevant operations of **Transpower**; and
- (b) the base capex in respect of the listed project was approved by Transpower in accordance with the applicable requirements of Transpower's capital expenditure approval policies.

SUBPART 2 Major capex proposals

9.2.1 Chief executive officer certification – major capex proposals

In relation to all information provided in accordance with Schedule G with respect to a **major capex proposal**, the chief executive officer of **Transpower** must certify in writing, that having made all reasonable enquiries, it is his or her belief that-

- (a) the information was derived from and accurately represents, in all material respects, the operations of **Transpower**;
- (b) the **proposed investment** to which the information relates was approved in accordance with the applicable requirements of **Transpower's director** and management approval **policies**; and

(c) the **major capex proposal** complies, in all material respects, with the requirements of clause 7.4.1.

SUBPART 3 Major capex project amendment and sunk costs applications

9.3.1 <u>Chief executive officer certification – major capex project amendment and sunk costs applications</u>

In relation to all information provided in accordance with Schedule H with respect to-

- an application for amendment of components of an approved major capex project; or
- (b) an application for a major capex sunk costs adjustment,

the chief executive officer of **Transpower** must certify in writing, that having made all reasonable enquiries, it is his or her belief that-

- (c) the information was derived from and accurately represents, in all material respects, the operations of **Transpower**;
- all parts of the major capex project to which the information relates have been approved in accordance with the applicable requirements of Transpower's director and management approval policies; and
- (e) the application complies, in all material respects, with the requirements of clause 7.4.2 or clause 7.4.3, as the case may be.

SUBPART 4 Changes in opinion or matters of fact

- 9.4.1 Changes in opinion or matters of fact
- (1) Where-
 - (a) a **director** or chief executive officer of **Transpower** has made a certification involving a matter of his or her opinion in accordance with this Part;
 - (b) his or her opinion has changed before the **Commission's** decision in relation to the proposal or application in question; and
 - (c) the change is likely to be material to the **Commission's** evaluation of the proposal or evaluation,

that **director** or chief executive officer must notify the **Commission** as soon as reasonably practicable.

- (2) Where-
 - (a) a **director** or chief executive officer of **Transpower** has made a certification involving a matter of fact in accordance with this Part;

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- (b) before the **Commission's** decision in relation to the proposal or application in question, he or she-
 - (i) becomes aware that the fact is untrue; or
 - (ii) has significant cause to doubt the accuracy of that fact; and
- (c) that fact is likely to be material to the **Commission's** evaluation of the proposal or application,

that **director** or chief executive officer must notify the **Commission** as soon as reasonably practicable.

SCHEDULE A BASE CAPEX PROPOSAL - EVALUATION CRITERIA

A1 General evaluation of base capex proposals

The **Commission** will have regard to the following factors when evaluating a **base capex proposal**:

- (a) whether the proposed base capex allowances have been prepared in accordance with Transpower's policies and planning standards for the grid and for each base capex category;
- (b) whether the policies and planning standards upon which the proposed base capex allowances rely are directed towards achieving cost-effective and efficient solutions;
- (c) the reasonableness of the key assumptions relevant to **base capex** relied upon, including-
 - (i) the method and information used to develop them;
 - (ii) how they were applied; and
 - (iii) their effect on the proposed base capex allowances;
- (d) whether policies regarding the need for, and prioritisation of projects and programmes demonstrate a risk-based approach consistent with good asset management practice;
- the dependencies between the proposed grid output measures and the proposed base capex allowances at the level of the grid and for each base capex category;
- (f) the dependencies between the proposed grid output targets and the proposed base capex allowances at the level of the grid and for each base capex category;
- (g) the extent to which the grid output targets were met in the <u>current and</u> previous regulatory period;
- (h) the overall deliverability of the proposed base capex during the regulatory period;
- (i) mechanisms for controlling actual capital expenditure with respect to the proposed base capex allowances and achieving the proposed grid output targets;

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- (j) the reasonableness and adequacy of any **asset replacement** models used to prepare the proposed **base capex allowances** including-
 - (i) inputs to the model; and
 - (ii) the methods used to check the reasonableness of the forecasts and related expenditure;
- (k) the reasonableness of the key assumptions, key input data and forecasting methods used in determining demand forecasts;
- (I) the appropriateness of using those demand forecasts and other key assumptions in determining the proposed **base capex allowances**;
- (m) the type of efficiency improvements obtained in the current and previous regulatory periods; and
- (n) the scope for efficiency improvements during the **regulatory period** in question.

A2 Evaluation of identified programmes

In evaluating a **base capex proposal**, the **Commission** will undertake a review of each **identified programme** and such a review will include evaluation of at least-

- whether **policies** regarding the need for the **identified programme** and its priority demonstrate a risk-based approach consistent with good asset management practice and were applied appropriately;
- (b) whether other relevant policies and planning standards were applied appropriately;
- (c) Transpower's process, including its use of cost-benefit analyses, to determine the identified programme's reasonableness and costeffectiveness;
- (d) Transpower's internal processes for challenging a need for an identified programme and the possible alternative solutions;
- (e) how **grid outputs**, key drivers, assumptions, and cost modelling were used to determine the forecast **capital expenditure** of the **identified programme**;
- (f) the capital costing methodology and formulation, including unit rate sources, the method used to test the efficiency of unit rates and the quantum of included contingencies;
- (g) the effect of the identified programme's, forecast capital expenditure on other cost categories, including the relationship with operating expenditure;
- (h) links with other **projects** or **programmes**, whether proposed or in progress; and

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 the efficiency of the proposed approach to procurement of associated goods and services for the identified programme. **Deleted:** <#>mechanisms for controlling
actual capital expenditure with respect to
the proposed base capex allowances and
ensuring performance of proposed grid
output targets; and

A3 Evaluation techniques

In undertaking the evaluations described in clauses A1 and A2, the **Commission** may employ one or more of the following techniques:

- (a) process benchmarking;
- (b) process or functional modelling;
- (c) unit rate benchmarking;
- (d) trending or time-series analysis;
- (e) high level governance and process reviews;
- (f) internal benchmarking of forecast costs against costs in the current period;
- (g) **capital expenditure** category and **operating expenditure** category benchmarking;
- (h) project and programme sampling;
- (i) critiques or independent development of-
 - (i) demand forecasts;
 - (ii) labour unit cost forecasts;
 - (iii) materials forecasts;
 - (iv) plant forecasts; and
 - (v) equipment unit cost forecasts; and
- (j) any other technique or approach that the **Commission** considers appropriate in the circumstances.

A4 Criteria for considering the low incentive rate base capex allowance

Where the Commission considers that a base capex project or base capex programme proposed by Transpower as a low incentive rate base capex project is likely to require capital expenditure greater than \$20 million, the Commission will take into account at least the following criteria in deciding whether to specify the base capex project or base capex programme as a low incentive rate base capex project:

- (a) whether there are viable alternatives that meet the same **investment need**; and
- (b) the magnitude of cost uncertainty of the base capex project or base capex programme.

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A5 Criteria for considering grid output measures

The **Commission** will take into account at least the following criteria in considering **grid output measures**:

- (a) the extent to which the proposed grid output measure is a recognised measure of either or both of the following things:
 - (i) risk in the supply of electricity transmission services; and
 - (ii) performance of the supply of electricity transmission services;
- (b) the relationship(s) between the proposed grid output measure and base capex, major capex and operating expenditure including the extent to which the relationship(s) can be quantified and the strength of the relationship(s);
- (c) whether the proposed <u>grid output measure</u> was devised in accordance with the <u>policies</u> and processes referred to in the <u>base capex proposal</u>, including consultation processes; and
- (d) the extent to which the <u>proposed grid output measure</u> aligns with the business processes used by **Transpower** in its **supply** of **electricity transmission services**.

A6 Criteria for considering revenue-linked grid output measures

In addition to the criteria specified in clause A5, the **Commission** will take into account at least the following criteria in considering **revenue-linked grid output measures**:

- (a) the extent to which the proposed revenue-linked grid output measure is a recognised measure of grid outputs that are valued by consumers; and
- (b) whether the proposed revenue-linked grid output measure is quantifiable, controllable by Transpower, auditable and replicable over time.

A7 Criteria for considering matters relating to revenue-linked grid output measures

The **Commission** will take into account at least the following criteria in considering the caps, collars, grid output incentive rate and grid output targets in respect of each revenue-linked grid output measure:

(a) the value that **consumers** place on the relevant grid output measure and the relationship between this value and the proposed grid output incentive rate;

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relationship between a measure and base
capex; and ¶

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- (b) quantification <u>and strength</u> of <u>the</u> relationship between **base capex** and the **grid output** both-
 - (i) within the **regulatory period** in question; and
 - (ii) over the longer term;
- (c) the extent of the likely effect of factors unrelated to **grid** investment that may affect the **relevant grid output**, such as-
 - (i) natural degradation in asset condition;
 - (ii) impact of changes in loading of the grid; and
 - (iii) extreme weather events;
- (d) the plausible range of the relevant grid outputs likely to be delivered taking into account the factors described in paragraphs (b) and (c);
- (e) the relationship between the range described in paragraph (d) and the proposed **caps** and **collars**; and
- (f) the impact on return on capital implied by both the range described in paragraph (d) and the application of the proposed caps, collars and grid output incentive rate.
- A8 Criteria for considering base capex allowance adjustment mechanism

Where the **Commission** considers specifying a **base capex allowance adjustment mechanism** it will take into account:

- (a) the cost and/or timing uncertainties of E & D base capex projects or E & D base capex programmes; and
- (b) the extent to which the cost and/or timing uncertainties are linked to-
 - (i) a certain level of demand or connection of new generation; and/or
 - (ii) any other drivers of E & D base capex.

SCHEDULE B **REVENUE ADJUSTMENTS**

DIVISION 1 BASE CAPEX AND GRID OUTPUT ADJUSTMENTS

(1) T	The base capex expenditure adjustment is the sum of the	he standard incentive rate	
	pase capex expenditure adjustment and the low incent		
_	expenditure adjustment.	<u> </u>	
(2)	Subject to subclause_(4), the quantum of the_standard in	ncentive rate base capex	
	expenditure adjustment for a disclosure year is calculat	ed in accordance with the	Deleted: base capex expendit adjustment
f	ollowing <u>formula; a(b-c-q)</u>		Deleted: table
Term	Description	Specification	Deleted: base capex expendit
а	base capex standard incentive rate	<u>33%</u>	adjustment Deleted: a(b-c-g)
b	adjusted standard incentive rate base	d + d' + e + f + h	Deleted: determination in acco
	capex allowance for the disclosure year	_	with clause 2.2.2
с	aggregate capital expenditure that is	base capex annual	
	base capex subject to the base capex	information required	
	standard incentive rate in the disclosure	by an ID	Deleted: resulting in assets fire
	year	determination or a	commissioned
		s 53ZD notice	
d	standard incentive rate base capex	in accordance with	Deleted: determination
	allowance for the disclosure year	clause 2.2.2(1)(a <u>) and</u>	
		the base capex	
		allowance	
		<u>adjustment</u>	
		<u>mechanism</u>	
ď	amount of approved base capex in	in accordance with	Deleted: monetary
	respect of listed projects <u>subject to the</u>	clause 3.2.3(5)(d)	Deleted: approved
	base capex standard incentive rate for		
	the disclosure year,		Deleted: to be used when calc maximum allowable revenue or
e	adjustment correcting for disparity	base capex annual	maximum allowable revenue in
	between forecast CPI that applied when	information required	IPP determination
	the standard incentive rate base capex	by an ID	
	allowance was determined and actual CPI	determination or a	
	in respect of d and d'	s 53ZD notice	

f	adjustment correcting for disparity between forecast FX rates that applied when the standard incentive rate base capex allowance was determined and actual FX rates for each relevant currency in respect of <i>d</i> and <i>d'</i>	base capex annual information required by an ID determination or a s 53ZD notice
<u>g</u>	aggregate amount of adjusted standard	base capex annual
	incentive rate base capex allowance b to which the base capex standard incentive rate a does not apply, if the expenditure was included in the standard incentive rate base capex allowance d or in approved base capex of listed projects d', and where either base capex has expanded in scope and has become major capex or where base capex included in d or d' has cost elements that vary significantly due to factors beyond the control of Transpower	information required by an ID determination or a s 53ZD notice
<u>h</u>	adjustment, after correcting for the applicable portions of e and f, in respect of the portion of d that is subject to the base capex allowance adjustment mechanism	specified in an IPP determination
(3) Sub	oject to subclause (4), the quantum of the low incenti	ve rate base capex

Deleted: aggregate amount of the adjusted base capex allowance or capital expenditure that is base capex to which the base capex incentive rate does not apply (the aggregate being a positive or negative value.

(3) Subject to subclause (4), the quantum of the **low incentive rate base capex expenditure adjustment** for a **disclosure year** is calculated in accordance with the following formula: a*(b*-c*-q*)

<u>Term</u>	<u>Description</u>	<u>Specification</u>
<u>a*</u>	base capex low incentive rate	<u>15%</u>
<u>b*</u>	adjusted low incentive rate base capex allowance for the disclosure year	<u>d* + d'* + e* + f*</u>
<u>c*</u>	aggregate capital expenditure that is base capex subject to the base capex low incentive rate in the disclosure year	base capex annual information required by an ID determination or a s 53ZD notice
<u>d*</u>	low incentive rate base capex allowance for the disclosure year	in accordance with clause 2.2.2(1)(a)

<u>d'*</u> amount of approved base capex in accordance with in respect of listed projects clause 3.2.3(5)(d) subject to the base capex low incentive rate for the disclosure year adjustment correcting for base capex information disparity between forecast CPI required by an ID that applied when the low determination or a incentive rate base capex s 53ZD notice allowance was determined and actual **CPI** in respect of d^* and d'^* <u>f*</u> adjustment correcting for base capex information disparity between forecast FX required by an ID rates that applied when the low determination or a incentive rate base capex s 53ZD notice allowance was determined and actual FX rates for each relevant currency in respect of d^* and d'^* <u>g</u>* aggregate amount of adjusted base capex annual low incentive rate base capex information required by allowance b* to which base capex an ID determination or a low incentive rate a* does not s 53ZD notice apply, if the expenditure was included in the low incentive rate base capex allowance d^* or in approved base capex of listed projects d'*, and where either base capex has expanded in scope and become major capex or where **base capex** included in d^* or d'*has cost elements that vary significantly due to factors beyond the control of Transpower

(4) For the purposes of subclauses (2) and (3), in calculating the amounts or values for one or more of *c*, *e*, *f*, *a*, *c**, *e**, *f** and *q**, the **Commission** need not use the amounts or values in the **base capex** annual information provided by **Transpower** and may instead, having regard to the views of interested persons, use the amounts or values that it considers are correct in the circumstances.

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B2 Calculation of annual grid output adjustment

(1) Subject to subclause (2), the quantum of the **grid output adjustment** is calculated for a **disclosure year** in accordance with the following table:

Deleted: <#>Calculation of base capex annual policies and processes adjustment¶ <#>Subject to subclause (2), the quantum of the policies and processes adjustment is calculated in accordance with the following table:¶ <#>Term

Term	Description	Specification	Deleted: ,
	grid output adjustment	∑i	
i	grid output adjustment in respect of the revenue-linked grid output measure in question	max(l(j-n), min(l(m-n), l(k-n)))	
j	collar in respect of the revenue- linked grid output measure in question for the disclosure year	in accordance with clause 2.2.2(1)(d)(ii)	Deleted: determination
k	cap in respect of the revenue- linked grid output measure in question for the disclosure year	in accordance with clause 2.2.2(1)(d)(i)	Deleted: determination
I	grid output incentive rate in respect of the revenue-linked grid output measure in question	in accordance with clause 2.2.2(1)(d)(iii)	Deleted: determination
m	output achieved during the disclosure year in respect of the revenue-linked grid output measure in question	base capex information required by an ID determination or a s 53ZD notice	Deleted: annual
n	grid output target in respect of the revenue-linked grid output measure in question for the	in accordance with clause 2.2.2(1)(d)(iv)	Deleted: determination

(2) For the purpose of subclause (1), in calculating the value for *m*, the **Commission** need not use the value for *m* disclosed by **Transpower** in the **base capex** annual information and may instead, having regard to the views of interested persons, use the value that it considers is correct in the circumstances.

disclosure year

DIVISION 2 MAJOR CAPEX ADJUSTMENTS

B3 Calculation of major capex expenditure and output adjustment

(1) Subject to subclause (2), the quantum of the major capex expenditure and output adjustment is calculated in accordance with the following formula for each approved major capex project:

a(b-t-c)

<u>Term</u>	<u>Description</u>	Specification
<u>a</u>	major capex incentive rate for the approved major capex project	in accordance with clause 3.3.5(7)
<u>b</u>	adjusted major capex allowance for the approved major capex project	<u>d+e+f</u>
<u>c</u>	amount of capital expenditure for the approved major capex projects less exempt major capex	major capex information required by an ID determination or a s 53ZD notice
<u>d</u>	major capex allowance for the approved major capex project less exempt major capex	in accordance with clause 3.3.5(7)
<u>e</u>	adjustment correcting for disparity between forecast CPI that applied when the major capex allowance for the approved major capex	major capex information required by an ID determination or a s 53ZD notice

project was determined
and actual CPI in respect of

d

Deleted: <#>Calculation of major capex overspend adjustment¶ <#>The quantum of the major capex overspend adjustment, subject to subclause (2), is equal to the present value of the after-tax revenue expected to be recovered by **Transpower** under one or more **IPP determinations** in respect of the inclusion of the excess amount in one or more closing RAB values.¶ <#>For the purpose of subclause (1)-¶ <#>the present value is calculated using a discount rate consistent with the WACC applicable to the IPP in respect of the disclosure year in question; and ¶ <#>in calculating the after-tax revenue expected to be recovered by Transpower the inclusion of any revenue adjustment calculated under this clause in the revenue calculation of any IPP determination must be disregarded. \P <#>In this clause 'excess amount' means -¶ <#>in respect of assets for which an approval by the Commission under clause 3.3.3 applies at the commissioning date of the last asset to be delivered by the project, the amount by which the capital **expenditure** relating to the assets exceeds the adjusted major capex allowance; and ¶ <#>for all other assets, the amount of capital expenditure relating to the assets in question that is major capex.¶ <#>The quantum of the adjusted major capex allowance is calculated, subject to subclause (5), in accordance with the following table:¶ <#>Term

<u>a</u>.

f

adjustment correcting for disparity between forecast FX rates that applied when the major capex allowance

for the approved major capex project was

determined and actual FX rates for each relevant currency in respect of d

<u>t</u> <u>estimated part of the **major**</u>

capex allowance for the approved major capex project that relates to the approved major capex project outputs not

major capex information

required by an ID determination or a s 53ZD

notice

major capex annual

information required by an ID determination or a s 53ZD

notice

delivered

(2) For the purposes of subclause (1), in calculating the amounts or values for one or more of c, e, f and t, the Commission need not use the amounts or values in the major capex information provided by Transpower in the major capex annual information and may instead, having regard to the views of interested persons, use the amounts or values that it considers are correct in the circumstances.

Deleted: <#>Subject to subclause (2), the quantum of the **major capex project output adjustment** is calculated in accordance with the following table:¶

Term

SCHEDULE C MAJOR CAPEX PROPOSAL - EVALUATION CRITERIA

	When deciding whether to approve a major capex project or a staging project, the	_	Deleted: proposed investment
<u>(1)</u>	Commission must evaluate whether the proposed investment satisfies the		Deleted: will
	investment test.		Deleted: ,
(2)	For the purposes of deciding whether a proposed investment that is a major		
141	capex project (staged) satisfies the investment test, the Commission will:		
	(a) where Transpower seeks approval for the first staging project of a major		
	capex project (staged), evaluate whether the investment test is satisfied for		
	all proposed staging projects of the major capex project (staged); and		
	(b) where Transpower seeks approval for a subsequent staging project of a		
	major capex project (staged) that is a continuation of an existing major		
	capex project (staged), evaluate whether the investment test is satisfied for		
	all proposed remaining staging projects of the major capex project (staged).		
(3)	The Commission will also evaluate, to the extent applicable to the transmission		
	investment or non-transmission solution in question, the following components		Deleted: proposed
	of the major capex project or staging project(s) for which Transpower seeks		
	approval in its major capex proposal:		
	(a) major capex allowance;		
	(b) maximum recoverable costs;		
	(c) recovery scheme;		
	(d) major capex project outputs;		Deleted: approved
	(e) approval expiry date;		
	(f) major capex incentive rate;		
	(g) <u>exempt major capex;</u>		Deleted: P50;
	(g) exempt major capex; (h) commissioning date assumption; and		,
(4)	(g) exempt major capex; (h) commissioning date assumption; and (i) completion date assumption.		Deleted: not
(4)	 (g) exempt major capex; (h) commissioning date assumption; and (i) completion date assumption. The Commission may only approve a major capex project or a staging project 		Deleted: not Deleted: proposed investment
(4)	(g) exempt major capex; (h) commissioning date assumption; and (i) completion date assumption.		,

(b) with the components listed in subclause (3) taking account of its ability to determine the major capex allowance, major capex incentive rate and exempt base capex...

C2 General evaluation of major capex proposal

The **Commission** must have regard to at least one of the following factors when evaluating a **major capex proposal**:

- (a) whether the **proposed investment** and **investment options**:
 - (i) reflect good electricity industry practice;
 - (ii) are technically feasible;
 - (iii) are able to be implemented in terms of the statutory planning process under the Resource Management Act 1991, other regulatory consents, and obtaining property and access rights; and
 - (iv) can be integrated into system and market operations;
- (b) whether the estimated time required for construction, consultation, meeting statutory planning and other regulatory requirements, and obtaining property and access rights prior to a proposed commissioning date or completion date is reasonable;
- (c) whether the key assumptions around outage planning are reasonable;
- (d) the extent to which, in complying with clause 3.3.1(9) with respect to the consultation programme or the approach for consideration of nontransmission solutions, Transpower has had regard to the views of interested persons; and
- (e) the impact of the sensitivity analysis on electricity market benefit or cost elements of the proposed investment and investment options.

C3 Evaluation of major capex allowance and maximum recoverable costs

The **Commission** must have regard to at least one of the following factors when evaluating the **major capex allowance** and **maximum recoverable costs** for <u>the **major** capex project or staging project that **Transpower** submits for approval in its **major capex** proposal;</u>

 how major capex project outputs, key drivers, key assumptions, and cost modelling were used to determine the P50 and major capex allowance or maximum recoverable costs; **Deleted:** the **proposed investment** in whole,

Deleted: or in part; or

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Deleted: In evaluating the components listed in subclause (1), the Commission will apply the evaluation criteria in clauses C2 to C6 below.

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- the capital costing methodology and formulation, including unit rate sources, the method used to test the efficiency of unit rates and the level of contingencies included;
- (c) the impact of forecast costs on other costs of **Transpower**, including the relationship with **operating expenditure**;
- (d) mechanisms for controlling actual **capital expenditure** with respect to the **major capex allowance** or **maximum recoverable costs**; and
- (e) the efficiency of the proposed approach to procurement of goods and services.

C4 Evaluation of approval expiry date

The **Commission** must have regard to at least one of the following factors when evaluating a proposed **approval expiry date**:

- (a) the effect of the proposed **approval expiry date** on the quantified and unquantified costs and benefits under the **investment test**;
- the effect of the changes to the commissioning date assumption or completion date assumption on the expected net electricity market benefit under the investment test;
- the effect of the proposed approval expiry date and the commissioning date assumption or completion date assumption in the major capex proposal;
- (d) the sensitivity of the proposed **approval expiry date** to the key assumptions used in the **major capex proposal**;
- (e) demand and generation scenarios; and
- (f) sensitivity analysis.

C5 Evaluation of major capex project outputs

The **Commission** must have regard to at least one of the following factors when evaluating proposed **major capex project outputs**:

- the extent to which the major capex project outputs reflect the nature, quantum and functional capability of the transmission investment assets to be commissioned;
- (b) the extent to which the major capex project outputs reflect the change in the functional capability of the grid as a result of undertaking the proposed major capex project or staging project;

Deleted: <#>what **key** assumptions were made regarding cost uncertainty in moving from a P50 forecast to the proposed **major** capex allowance or maximum recoverable costs:¶

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- the extent to which the major capex project outputs are consistent with key assumptions used in determining the major capex allowance or maximum recoverable costs;
- (d) the nature of the electricity market benefit or cost elements directly related to the supply of electricity transmission services taken into account in applying the investment test; and
- (e) in the case of a non-transmission solution-
 - (i) the extent to which the **major capex project outputs** reflect the nature and quantum of any product or service provided to **Transpower**; and
 - (ii) the extent to which the **major capex project outputs** reflect the change in the functional capability of the **grid** resulting from the product or service provided to **Transpower**.

C6 Evaluation of major capex incentive rate

The **Commission** must have regard to at least one of the following factors when evaluating proposed **major capex incentive rates**:

- (a) the magnitude of the cost of the major capex project relative to the aggregate cost of other major capex projects;
- (b) the magnitude of the cost uncertainty of the major capex project relative to the cost uncertainty of other major capex projects.

C7 Evaluation techniques

In undertaking the evaluations described in the clauses in this schedule, the **Commission** may employ one or more of the following techniques:

- (a) analysis of powerflow and dynamics in the **grid**, in the context of the **proposed investment**, **investment options** and **modelled projects**;
- detailed critiques of conceptual designs to the extent necessary to derive credible cost and time estimates, including forecast commissioning dates or completion dates;
- (c) analysis and review of the calculation of costs and benefits associated with the **proposed investment** and **investment options** including, but not limited to:
 - (i) calculation of loss benefits;
 - (ii) reductions in fuel consumption by **generators** of electricity;
 - (iii) enabled lower cost generation;

- (iv) reliability benefits; and
- (v) competition effects;
- (d) critiques of market development scenarios contained in **major capex proposals**;
- (e) unit rate benchmarking; and
- (f) any other technique or approach that the **Commission** considers appropriate in the circumstances.

SCHEDULE D MAJOR CAPEX - INVESTMENT TEST

DIVISION 1 INVESTMENT TEST

D1 Major capex - investment test

- (1) The **investment test** is satisfied in respect of a **proposed investment** if the **proposed investment** is an **investment option** that-
 - (a) is sufficiently robust under sensitivity analysis;
 - (b) has a positive expected net electricity market benefit unless it is designed to meet an investment need the satisfaction of which is necessary to meet the deterministic limb of the grid reliability standards; and
 - (c) has-
 - the highest expected net electricity market benefit, where only quantified electricity market benefit or cost elements are taken into account; or
 - (ii) the highest expected net electricity market benefit including a qualitative assessment to take into account the contribution of associated unquantified electricity market benefit or cost elements, if the proposed investment has a similar expected net electricity market benefit to the investment option with the highest expected net electricity market benefit where only quantified electricity market benefit or cost elements are taken into account.
- (2) For the purpose of subclause (1)(c)(ii)-
 - a similar expected net electricity market benefit is one where the difference in quantum, subject to subclause (3), is 10% or less of the aggregate project costs of the investment option to which the proposed investment is compared; and
 - (b) an electricity market benefit or cost element may be treated as unquantified where-
 - (i) the cost of calculating its quantum in accordance with clause D6(4) is likely to be disproportionately large relative to the quantum; or
 - (ii) its expected value cannot be calculated in accordance with clause D6(4) with an appropriate level of certainty due to the extent of uncertainties in underlying assumptions or calculation approaches.

(3) For the purpose of subclause (2)(a), the **Commission** may, at its discretion, adopt an alternative percentage to 10% as proposed by **Transpower**.

DIVISION 2 MEANING OF TERMS USED IN INVESTMENT TEST

D2 Expected net electricity market benefit

- (1) Expected net electricity market benefit means, in respect of an investment option, the weighted average of the net electricity market benefit under each relevant demand and generation scenario, where each relevant demand and generation scenario is accorded the explicit or implicit weighting assigned to it by the party who developed the scenario, unless Transpower considers that alternative weightings should apply and has consulted on these as part of its consultation on the short list of investment options.
- (2) Net electricity market benefit means, in respect of an investment option applied to a demand and generation scenario, its aggregated quantum of each electricity market benefit or cost element less its aggregated quantum of each project cost.
- D3 Demand and generation scenario, demand and generation scenario variation, and relevant demand and generation scenario.
 - (1) <u>Demand and generation scenario means a description</u> of a hypothetical future situation relating to forecast electricity demand and generation published by the Ministry of <u>Business</u>, <u>Innovation and Employment</u> (or other agency which subsequently assumes the responsibility) for the purpose of the preparation or evaluation of <u>major capex proposals</u>.
 - (2) <u>Demand and generation scenario variation means a</u> reasonable variation on a <u>demand and generation scenario</u> that reasonably has regard to the views of interested persons.
 - (3) For the purpose of subclause (2), a variation must be feasible and reasonable with regard to at least the following factors;
 - (a) existing and forecast demand;
 - (b) the grid reliability standards;
 - (c) the value of expected unserved energy;
 - (d) transfer capacities and capabilities of the grid;
 - (e) the cost of supplying sufficient ancillary services;
 - (f) the cost of losses necessarily incurred in efficiently meeting demand;

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Investment option means a major capex
project-¶

<#>other than one proposed to be fully funded under a new investment contract;
<#>designed to meet a particular investment need; ¶

<#>that is technically feasible; and ¶
<#>that is different to another major capex project designed to meet the same investment need at least in respect of its proposed commissioning date or completion date or date for proposed delivery of major capex project outputs, as the case may be, which difference must be material. ¶

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Deleted: <#>until a document described in paragraph (b) of this clause is published, <#>scenario specified as 'market development scenario' in the statement of opportunities published by the Electricity Commission in 2010; or¶ <#>reasonable variation on a scenario referred to in sub-paragraph (i), that reasonably has regard to the views of interested persons; ¶

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detail as each demand and generation
scenario; and¶

<#>be feasible and reasonable with regard
to at least the following factors: ¶

- (g) operating expenditure incurred in efficiently meeting demand by means of existing assets, committed projects, decommissioned assets and modelled projects;
- (h) the capital cost of efficiently meeting demand by means of modelled projects;
- the timing of decommissioning an asset or removing or re-rating a decommissioned asset; and
- (j) likely range of **investment options** to which the **investment test** relates.
- (4) Relevant demand and generation scenarios means-
 - (a) <u>all current demand and generation scenarios</u> that have not been varied <u>under subclause (2); and</u>
 - (b) where there are demand and generation scenario variations, all demand and generation scenario variations plus all current demand and generation scenarios that have not been varied under subclause (2).

D4 Costs or benefits

- (1) Electricity market benefit or cost element means, subject to subclause (3), any of the following things received or incurred by consumers during the calculation period under the demand and generation scenario in question that will affect net electricity market benefits:
 - (a) fuel costs incurred by **generators** in relation to **existing assets**, **committed projects** and **modelled projects**;
 - (b) the cost of involuntary demand curtailment borne by end users of electricity;
 - (c) the costs of demand-side management;
 - (d) capital costs of modelled projects;
 - (e) costs resulting from operations and maintenance expenditure on committed projects, existing assets and modelled projects;
 - (f) the cost of ancillary services including system operator costs;
 - (g) the cost of losses, including local losses;
 - (h) any real option value;
 - (i) subject to subclause (5), the value of any benefit associated with any financial contribution that a third party has committed to make towards the costs of the **project**;

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<#>a reasonable number of market
development scenario variations; and¶

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variations.¶

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<#>For the purpose of subclause (1)(a)(i), 'statement of opportunities' has the same meaning as defined in the Electricity Governance Rules 2003 immediately before their revocation. ¶

- (j) subsidies or other benefits-
 - (i) relating to anything listed in paragraphs (a) to (i); and
 - (ii) provided under or arising pursuant to all electricity-related legislation and electricity-related administrative determinations;
- (k) competition effects; and
- (I) any other benefit or cost occurring in the electricity market proposed by Transpower prior to its consultation on the short list of investment options and agreed to by the Commission.
- (2) **Project cost** means any of the following things reasonably incurred by **Transpower** prior to or during the **calculation period** in undertaking a **major capex project:**
 - capital expenditure incurred, including capital expenditure in relation to land specified in subclause (6), prior to the date implied by the commissioning date assumption for assets associated with the investment option;
 - (b) amounts payable to a third party in relation to its testing of assets associated with the investment option;
 - an amount reasonably related to the commissioning of assets associated with the investment option;
 - (d) operating, maintenance and dismantling costs associated with the **investment option**;
 - reasonable costs of complying with or arising pursuant to all applicable existing and reasonably anticipated legislation relating to the approval for and undertaking of an investment option;
 - (f) reasonable costs of complying with or arising pursuant to administrative requirements relating to the approval for and undertaking of an investment option, including costs relating to the preparation of a major capex proposal; and
 - (g) any other reasonable costs incurred by Transpower associated with the investment option.
- (3) For the purpose of subclause (1), an **electricity market benefit or cost element** excludes any **project cost** incurred by **Transpower** specified in subclause (2).

- (4) For the purpose of subclause (1)(h), real option value means the value attaching to the flexibility of a participant in the electricity market to make investment decisions, relating to an overall investment, in phases, where the value reflects the expected relative reduction of future costs to future benefits due to the making of those investment decisions based on information available in the future but presently unavailable or uncertain.
- (5) For the purpose of subclause (1)(i), the value of any such benefit may not exceed the amount of the contribution committed by the third party.
- (6) The land referred to in subclause (2)(a) is land that, at the time of the major capex proposal, is commissioned but which is not used by Transpower to provide electricity transmission services.

D5 Competition effects

Competition effects means <u>the</u> value of the expected change in economic surplus due to a change in competition among participants in the electricity market as a result of a major capex project undertaken by Transpower, which must exclude any expected change in economic surplus due to a change in another electricity market benefit or cost element listed in clause D4(1).

D6 Quantification of costs and benefits

- (1) The quantum of a **project cost** incurred prior to the **calculation period** must be calculated using compounding of the **project cost** over the period from the date it was incurred to the start of the **calculation period** using the **discount rate**.
- (2) The quantum of an electricity market benefit or cost element received or incurred during the calculation period must be calculated using discounting of the electricity market benefit or cost element over the calculation period using the discount rate.
- (3) Discount rate means-
 - (a) a standard rate of 7%; or
 - (b) a non-standard rate other than 7% which is appropriate in the circumstances and subject to consultation under clause I3.
- (4) The quantum of an electricity market benefit or cost element or project cost must be calculated using its expected value, which is the probability-weighted average of the possible values of the cost or benefit where the probability weightings reflect the uncertainties in underlying assumptions or calculation approaches.

- (5) The cost of involuntary demand curtailment borne by end users of electricity is the expected quantity of curtailed demand multiplied by the value of expected unserved energy.
- (6) The quantum of a **project cost** must be calculated using **good electricity industry practice**.

D7 Sensitivity analysis

- (1) **Sensitivity analysis** means consideration, save where it is neither reasonably practicable nor reasonably necessary, of the effect on quantum of variations in the following parameters, taking into account their probability of occurrence:
 - (a) forecast demand;
 - (b) size, timing, location, fuel costs and operating and maintenance costs, relevant to existing assets, committed projects, modelled projects and the investment option in question;
 - (c) capital cost of the **investment option** in question (including variations up to proposed **major capex allowance**) and **modelled projects**;
 - (d) timing of decommissioning, removing or de-rating **decommissioned assets**;
 - (e) subject to subclause (2), the value of expected unserved energy;
 - (f) discount rate;
 - (g) range of hydrological inflow sequences;
 - (h) relevant demand and generation scenario probability weightings;
 - in relation to any competition effects associated with an investment option, generator offering and demand-side bidding strategies; and
 - (j) any other variables that **Transpower** considers to be relatively uncertain.
- (2) For the purpose of subclause (1)(e), where paragraph (b) of the definition of value of expected unserved energy is relied on, sensitivity analysis must be undertaken in respect of variations in both the value described in that paragraph and the value described in paragraph (a) of the definition of value of expected unserved energy.
- (3) For the purpose of subclause (1)(f), **sensitivity analysis** must be undertaken in respect of the following **discount rates**-
 - (a) 4%;
 - (b) the standard rate of 7%;
 - (c) 10%; and

(d) any non-standard rate other than 7% which has been adopted by **Transpower**.

D8 Assets and projects

- (1) Committed project means assets that are likely to be commissioned during the calculation period and-
 - (a) in relation to which all of the following are satisfied:
 - the proponent has obtained all required planning consents, construction approvals, and licences, and fulfilled any other regulatory requirement that must be met before commencing construction;
 - (ii) construction has commenced or a firm commencement date for construction has been set;
 - (iii) the proponent has acquired or executed an agreement to acquire land (or commenced legal proceedings to acquire land), or has executed an agreement for the leasing of land, for the purposes of construction;
 - (iv) contracts for supply and construction of the major components of the plant and equipment (including any generating units, turbines, boilers, transmission towers, conductors, termination station equipment) have been executed (i.e. all the necessary formal legal requirements have been observed to make the contract valid and complete); and
 - (v) if required, contracts for the financing of the project, including any debt plans, have been executed (i.e. all the necessary formal legal requirements have been observed to make the contract valid and complete); or
 - (b) that is an approved investment (as 'approved investment' is defined in the **code**).
- (2) Decommissioned asset means an existing asset in relation to which-
 - (a) the following things are satisfied:
 - (i) a final decision to decommission, remove or de-rate the existing asset after a specified date has been made and publicly announced; and
 - (ii) firm arrangement to directly or indirectly facilitate the decommissioning, removal or de-rating of the existing asset has been made;
 - (b) consents or contracts for its operation and maintenance have-
 - (i) been terminated; or
 - (ii) expired with no reasonable prospect of renewal; or

- (c) agreements for early termination of consents or contracts for its operation and maintenance have been executed.
- (3) **Existing asset** means any asset in operation at the time a **major capex proposal** is made.
- (4) **Modelled project** means assets, other than those that are part of an **investment** option-
 - (a) which are likely to exist-
 - (i) as part of a demand and generation scenario; and
 - (ii) during the **calculation period** for any **investment option** based on that scenario; and
 - (b) for which the likelihood, nature and timing of their existence are affected by an **investment option** proceeding.

SCHEDULE E INTEGRATED TRANSMISSION PLAN

E1 Information to be included in integrated transmission plan

- (1) The information that must be included is:
 - (a) an ITP narrative; and
 - (b) ITP supporting documents.
- (2) The information listed in this schedule in relation to the **ITP narrative** is, unless otherwise stated, required in respect of a period of at least ten **disclosure years** commencing on the first day of the next **regulatory period**.
- (3) The robustness of information provided must be commensurate with the degree of certainty **Transpower** may be reasonably expected to have in respect of it.

E2 Information to be included in the ITP narrative

- (1) with reference, where relevant, to the information contained in the ITP supporting documents, a high level-
 - (a) overview of the expenditure and outputs which are proposed for the first regulatory period to which the ITP narrative relates coinciding with the disclosure year and forecast expenditure needs and outputs over the next regulatory period;
 - (b) overview of the key assumptions and scenarios used to determine forecast expenditure and **grid outputs**;
 - (c) assessment of the key uncertainties in the key assumptions, and forecast expenditure and **grid outputs**;
 - (d) assessment of the key risks affecting forecast expenditure;
 - (e) assessment of how the key uncertainties and key risks will affect
 Transpower's ability to deliver the forecast grid outputs;
 - (f) description of the proposed measures to manage and mitigate the key uncertainties and key risks;
 - (g) description of the key relationships, including any synergies or trade-offs, within and between the following:
 - (i) **projects** and **programmes** assumed for the purpose of determining the forecast expenditure; and
 - (ii) the forecast grid outputs; and

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- (h) explanations of how key aspects of the ITP narrative take account of any changes in Transpower's strategic directions or scenarios since the publication of the previous ITP narrative, including by reference to any new reports by Transpower on strategic directions or scenarios.
- (2) forecast expenditure in the form of a schedule in respect of each **disclosure year** for-
 - (a) **operating expenditure** (disaggregated by major areas of expenditure);
 - (b) base capex (disaggregated by major areas of expenditure); and
 - (c) approved major capex (disaggregated by project);
- (3) forecast **grid outputs** in the form of a schedule in respect of each **disclosure year** for-
 - each revenue-linked grid output measure described in the base capex proposal relating to the first regulatory period to which the ITP narrative relates;
 - all proposed grid output measures other than those referred to in (a) above described in that base capex proposal relating to the first regulatory period;
 and
 - (c) **major capex project outputs** assumed to be delivered by each approved **major capex project**;
- (4) a summary of major capex projects under development, including:
 - a summary of the key issues being addressed with reference to the planning report which is an ITP supporting document;
 - (b) estimates of likely capital expenditure; and
 - (c) estimates of project timings, including those relating to consultation periods, submissions for approval, construction, and **commissioning**.

E3 ITP supporting documents

the following **documents**, prepared or updated no more than two years before the submission date-

- (a) an asset management plan that includes the information specified in clause E4;
- (b) a planning report that includes the information specified in clause E5;
- (c) a report setting out **Transpower's** output and performance objectives that includes the information specified in clause E6.

E4 Information to be included in the asset management plan

- (1) overall asset management strategy and objectives;
- (2) overall asset risk management framework; and
- (3) asset management plans for each asset class covering:
 - (a) specifications for assets life cycle activities;
 - (b) general condition of existing assets;
 - (c) intended **programmes** of asset management works;
 - (d) routine maintenance and repair plans for assets; and
 - (e) **programmes** for routine maintenance and repair plans.

E5 Information to be included in the planning report

- (1) the capabilities of the existing **grid**;
- (2) demand and generation forecasts for the forthcoming 10 years;
- (3) the grid's ability to meet future demand and generation needs;
- (4) the role of the **grid** in facilitating generation; and
- (5) **grid** investment that may be required to meet future needs for the next 10 years and beyond, by way of-
 - (a) **grid** backbone transmission plans for the main North and South Island transmission corridors and for the HVDC link; and
 - (b) a set of regional plans.

E6 Information to be included in the report on output and performance objectives

- (1) a longer term view of the **grid outputs** and associated **grid** performance that will be economic to achieve, taking account of-
 - (a) performance expectations of end users of electricity, including in relation to the value of unserved energy;
 - (b) the costs of delivering changes in the level of **grid outputs**;
 - (c) the impact of committed expenditure on grid outputs; and
 - (d) any forecast degradation in asset condition or performance which will affect **grid outputs**;
- (2) a detailed description on the analysis, assumptions and approach used to determine the longer term view; and

(3) an approach to convert the longer term view to appropriate shorter term objectives for **grid outputs**.

SCHEDULE F BASE CAPEX PROPOSAL - QUALITATIVE INFORMATION

F1 Qualitative information required in a base capex proposal

For the purpose of clause 7.3.1(1)(b), a **base capex proposal** must, in addition to the other things specified in that clause, include all the information listed or described in this schedule. The information listed or described in this schedule is, unless otherwise stated, required in respect of the **regulatory period** to which the **base capex proposal** relates, i.e. the next **regulatory period**.

- F2 <u>List of identified programmes, listed projects, low incentive rate base capex projects</u> and E & D base capex projects
 - (1) <u>Identify all proposed **identified programmes** and explain how they were selected with reference to the categories or criteria agreed or specified under clause 2.2.1;</u>
 - (2) <u>Jdentify all proposed **listed projects** and explain why they meet the criteria for **listed projects** set out in clause 2.2.2(7);</u>
 - (3) Identify all proposed low incentive rate base capex projects and explain-
 - (a) why each is expected to require **capital expenditure** exceeding \$20 million;
 - (b) the extent to which there are viable alternatives to meet the same investment need; and
 - (c) the magnitude of the cost uncertainty.
 - (4) Identify all E & D base capex projects or E & D base capex programmes that

 Transpower considers should be subject to the base capex allowance adjustment
 mechanism and explain the extent to which the cost and/or timing uncertainties
 are linked to-
 - (a) a certain level of demand or connection of new generation; and/or
 - (b) any other drivers of E & D base capex.

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those programmes or projects:¶

F3 Overview

(1) An overview narrative on how the proposed base capex projects and base capex programmes are consistent with the-

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(a) most recent **integrated transmission plan**, and <u>an explanation for any</u> <u>material divergence</u>; and

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(b) opex proposal;

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(2) overall description of Transpower's aims and objectives with respect to base capex;

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(3) summary of the key evidence supporting those aims and objectives;

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(4) explanation as to the overall deliverability of the proposed <u>base capex projects</u> and <u>base capex programmes</u>; and

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(5) identification and explanation of the factors likely to affect the deliverability of the proposed base capex projects and base capex programmes by base capex category.

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F4 **Governance** and consultant reports

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(1) schedule listing <u>Transpower's governance arrangements (including policies, processes, strategies and risk assessments)</u> applicable to **base capex** concerning-

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(a) base capex projects costing over \$20 million;

(c) asset management;

(d) business planning; and

base capex programmes;

(e) capital works;

 description of all material changes to policies and processes, that have had a material impact on expenditure levels; and **Deleted:** described in subclause (1) made since the **Commission's** last determination of a **base capex allowance**

(3) schedule listing all consultant reports commissioned for the purpose of preparing the base capex proposal.

F5 Cost and efficiency

(b)

- (1) evidence demonstrating if, and how, **Transpower** has, in relation to **base capex**, during the current **regulatory period**-
 - (a) pursued, and is pursuing process improvements;
 - ensured and is seeking to ensure appropriate least-whole-of-life cost and efficient interventions;

- pursued and is pursuing cost reduction strategies for its projects and programmes;
- (d) ensured and is seeking to ensure that both internal and external suppliers of goods and services have incentives to perform well and identify cost savings;
- (2) description of all efficiency assumptions relied upon in the proposed **base capex allowances**; and
- (3) description of-
 - (a) any contingency included in proposed costs; and
 - (b) the methodology for calculating such contingencies.

F6 Information on identified programmes

- (1) description, in respect of each <u>identified programme</u>, of the milestones that have been passed in accordance with **Transpower's** internal approval processes;
- (2) in respect of each identified programme_
 - (a) description of the identified programme, including its aims and objectives;
 - (b) <u>economic</u> analyses that support it;
 - (c) explanation as to its deliverability, with reference to factors likely to specifically affect the identified programme;
 - (d) description of the methodology used to generate the forecast of its **base capex**, including, but not limited to-
 - (i) the relevant key assumptions and how they were applied;
 - (ii) any relevant cost benchmarking undertaken by or for **Transpower**;
 - (iii) internal historical cost trends for specific cost components relied upon e.g. unit costs; and
 - (iv) <u>any models used, accompanied by explanations of the models and how</u> they were relied upon;
 - (e) any material change from historical costs in any cost component included in the identified programme and its effect on the forecast base capex;
 - (f) list of all relevant **documents** taken into account in forecasting the identified programme's, base capex, including **documents** relating to the identified programme's, deliverability, relevant policies and consultant reports;

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- (g) explanation of the extent to which the identified programme's forecast base capex implements the key assumptions, any consultant reports, and policies relating to the planning of the grid and the forecasting of capital expenditure and operating expenditure for that purpose, including in relation to-
 - (i) long term grid development;
 - (ii) grid maintenance; and
 - (iii) grid operation;
- (h) explanation of all material departures from any-
 - (i) relevant policies;
 - (ii) planning standards; or
 - (iii) conclusions and recommendations contained in the consultant reports identified pursuant to paragraph (f);
- (i) overview of any significant tradeoffs between operating expenditure, base capex and quality that Transpower considered in the development of the the identified programme;
- (j) assessment of its impact upon either or both of the-
 - (i) quality performance; and
 - (ii) serviceability,

of the assets to which the identified programme relates;

- (k) description of relevant legally enforceable duties owed by Transpower, whether arising under legislation, at common law or in contract, that have a material impact on the identified programme;
- (I) description of any material step change compared to historic costs for the same or a similar type of **project** or **programme**;
- (m) explanation of the effect of a step change <u>described</u> pursuant to paragraph
 (l) on the forecast base capex of the identified programme.
- (3) in respect of each **identified programme** with a forecast commissioning date in the next regulatory period-
 - (a) __description of the reasons for the identified programme and the key assumptions underlying the investment need;
 - (b) where options have been considered, provide a summary of the options considered, the analyses undertaken and the reasons for selecting the preferred option;

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Deleted: <#>description of the system growth **project** prioritisation approach;¶

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- (c) summary of expected costs and a description of benefits and outputs; and
- (d) <u>identify, quantify and justify all contingency sums included in the forecast</u> cost of the **identified programme**.
- in respect of each identified programme with a forecast commissioning date in the regulatory period after the next regulatory period.
 - (a) describe the milestones that are planned to be completed in the next regulatory period; and
 - (b) provide the forecast **commissioning date**.
- in relation to each identified programme that may use outsourced services which may have a material effect on the desired outcome of the identified programme to the extent known-
 - (a) identify the outsourced services;
 - (b) explain whether those outsourced services are to be provided-
 - (i) under a discrete contract; or
 - (ii) as part of a broader operational arrangement or contract or similar;
 - (c) provide an overview of the procurement process, including an explanation of the extent to which the process will involve competitive bidding, and if not, why not;
 - (d) identify any significant components of any outsourced services that have been, or will be sub-contracted to another supplier; and
 - (e) <u>identify relevant procurement **documents** in a schedule, including but not limited to requests for tender and submissions in response.</u>

F7 Procurement

- (1) Provide a description of the procurement process that will be used to deliver the proposed expenditure included in the base capex proposal; and
- (2) <u>Identify and explain any key risks associated with procurement that has the potential to affect the delivery of base capex projects and base capex programmes in the next regulatory period.</u>
- F8 Resourcing and delivery
 - description of plans for resourcing and delivering the proposed base capex projects and base capex programmes;

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<#>listing all programmes or projects
whose forecast base capex includes a
contingency amount additional to the
forecast cost of that programme; ¶
<#>describing the rationale for inclusion of
each such contingency amount; ¶
<#>describing the uncertainties each
contingency amount accounts for; and ¶
<#>specifying the methodology for
calculating the quantum of each
contingency amount; and ¶

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Deleted: <#>In relation to each identified programme identified pursuant to subclause (1).-¶ <#>identify the outsourced services that have a material effect:¶ <#>explain whether those outsourced services are to be provided-¶ <#>under a discrete contract; or ¶ <#>as part of a broader operational arrangement or contract (or similar); ¶ <#>provide an overview of the procurement process, including an explanation of the extent to which the process was competitive, and if not, why <#>identify any significant components of any outsourced services that will be or have been sub-contracted to another supplier: and¶ <#>identify relevant procurement documents in a schedule, including but not

limited to requests for tender and submissions in response.¶

- (2) identification of the key risks associated with resourcing and delivering the proposed **base capex projects** and **base capex programmes** including explanation of each risk's potential to affect-
 - (a) the forecast base capex; and
 - (b) forecast grid output measures; and
- (3) description of the processes that will be implemented to manage or mitigate the risks to which subclause (2) relates.

F9 Other capex

In respect of any **base capex** included in the **regulatory templates** agreed pursuant to clause 2.2.1(1) or specified pursuant to clause 2.2.1(2) that does not relate to an **identified programme**, description of the rationale for any forecast **base capex** exceeding \$1 million in any one **disclosure year**.

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F10 Escalation factors and foreign exchange assumptions

- (1) in respect of each escalation factor relied on to account for changes in input prices in completing the **regulatory templates** agreed pursuant to clause 2.2.1(1) or specified pursuant to clause 2.2.1(2)-
 - (a) description of each such escalation factor and rationale for its use;
 - (b) methodology underlying the calculation of its quantum, by reference to data sources, data conversions and assumptions relied upon, including lags;
 - (c) the weighting given to it and description of how that weighting was determined, including any assumptions relied upon;
 - explanation of whether the same escalation factor has been used in the base capex proposal and opex proposal, and if not, explanation and supporting evidence as to why different escalator factors were applied;
 - (e) an explanation of whether, in applying escalation factors that relate to labour or material inputs, additional contingency factors were applied and, if so, description of the uncertainties they account for and how they were calculated;
- (2) a list of the foreign exchange rates used to prepare the proposed **base capex allowances**;
- (3) an estimate of the exposure to foreign currency for each foreign currency for each year of the next **regulatory period** and description of how these estimates were produced.

F11 Information on proposed grid output measures

- (a) must include the following-
 - (i) one or more asset performance measures;
 - (ii) one or more measures of grid performance; and
 - (iii) one or more asset health grid output measures;
- (b) may include the following-
 - (i) one or more asset capability grid output measures; and
 - (ii) any other grid output measures;
- (2) description of each grid output measure listed under subclause (1) including-
 - (a) detailed definitions;
 - (b) details as to what the grid output measure includes and excludes;
 - (c) the reasons for selecting each grid output measure, including the relationship with the-
 - (i) risks associated with the grid;
 - (ii) forecast performance of the grid; and
 - (iii) the purposes of the investment in the grid as proposed in the base capex proposal.
- (3) in respect of each grid output measure listed under subclause (1)-
 - (a) identify whether it is proposed as a **revenue-linked grid output measure**, or not linked to revenue;
 - (b) the effect that the proposed base capex allowances would have on the measure during the next regulatory period and beyond it;
 - (c) the alignment with the underlying business processes used to plan and operate the grid; and
 - (d) all relevant calculations, models and supporting data;
- (4) in respect of each **grid output measure** listed under subclause (1) not linked to revenue-
 - (a) the forecast value of the **grid output measure** at the start and by the end of the **regulatory period**; and
 - (b) an explanation of how the forecast value was determined.

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<#>grid output measures designed to measure the benefit delivered by proposed expenditure not captured by paragraphs (a) to (c) above,¶

that clearly identify those proposed to be revenue-linked grid output measures;

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F12 Revenue-linked grid output measures

- 1) in respect of each proposed revenue-linked grid output measure-
 - (a) a description of how it will be linked to revenue through the **grid output** mechanism;
 - (b) in respect of each disclosure year of the regulatory period, a proposed-
 - (i) grid output target;
 - (ii) grid output incentive rate;
 - (iii) cap; and
 - (iv) collar;
 - (c) description of and justification for the proposed **grid output targets**, **caps**, **collars**, and **grid output incentive rates** including-
 - (i) how each was determined by reference to the relevant definitions;
 - (ii) whether, and if so, for each grid output target, Transpower has had regard to any consultation responses and relates to relevant policies and key assumptions;
 - (d) to the extent possible, historical performance data for the seven most recently completed **disclosure years**;
- (2) commentary comparing and evaluating the performance of each proposed revenue-linked grid output measure with respect to actual capital expenditure and operating expenditure over the 7 most recently completed disclosure years;
- (3) commentary as to how the proposed grid output targets relate to the proposed base capex allowances and proposed operating expenditure allowance as contained in the opex proposal;
- (4) identification of any key assumptions relied upon and modifications or changes made to historical performance data for the purpose of determining the proposed grid output targets; and
- (5) description of models and all data used to determine the <u>proposed grid output</u> targets, caps and collars.

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in respect of each grid output measure not subject to the grid output mechanism-¶ <#>the forecast quantum of the grid output measure at the start of the regulatory period;¶

<#>explanation as to how that forecast
quantum was determined;¶
<#>forecast incremental change to its
quantum by the end of the regulatory
period were no base capex undertaken
during the regulatory period;¶
<#>forecast incremental change to its
quantum by the end of the regulatory
period were expenditure made in
accordance with the proposed base capex
allowances; and¶

<#>models and data used to forecast- ¶
<#>its quantum at the start of the
regulatory period; and ¶
<#>incremental changes to its quantum

<#>incremental changes to its quantum during and by the end of the regulatory period.¶

SCHEDULE G MAJOR CAPEX PROPOSALS

G1 Information required in a major capex proposal

For the purpose of clause 7.4.1(1)(a)_

- (a) a major capex proposal must include the information listed or described in this schedule; and
- (b) where the major capex proposal relates to the continuation of an existing major capex project (staged), the information may be provided as updates to the information previously supplied for the major capex project (staged) and previously approved staging projects.

G2 Information on the investment need

explanation of the need for investment, including-

- (a) information on its nature, extent, location and timing;
- (b) commentary as to how the **investment need** is consistent with the most recent **integrated transmission plan**; and
- (c) a summary of consultation participants' views on the **investment need** and how **Transpower** had regard to those views and if not, why not.

G3 Information on relevant demand and generation scenarios

- (1) detailed description of each demand and generation scenario variation, including-
 - (a) an explanation of the major variations between the demand and generation scenario variation and the related original demand and generation scenario;
 - (b) the rationale for the variations; and
 - (c) a summary of consultation participants' views on them;
- (2) jn respect of each relevant demand and generation scenario-
 - (a) the relative weighting of each scenario; and
 - (b) where that weighting was determined by **Transpower**, the methodology used to determine it,

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<#>each market development scenario
variation,- ¶

<#>explanation of the major variations between it and the market development scenarios; and¶

<#>the rationale for the variations; and¶
<#>each MED scenario variation,- ¶
<#>explanation of the major variations
between it and the current MED scenarios;
and¶

<#>the rationale for the variations;¶

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G4 Information relating to each investment option

In relation to each investment option contained in the major capex proposal-

- (1) description of the investment option;
- (2) **net electricity market benefit** of each **investment option** under each <u>relevant</u> demand and generation scenario;
- (3) in respect of each investment option, quantum of-
 - (a) each electricity market benefit or cost element;
 - (b) each project cost;
 - (c) aggregate electricity market benefit or cost element; and
 - (d) the **P50**,

used to calculate each net electricity market benefit;

- (4) methodology used to determine the quantum of all information provided pursuant to subclause (3), including details commensurate with the estimated capital expenditure and complexity of the investment option of any-
 - (a) internal and external benchmarking and how the results were applied;
 - (b) relevant existing or proposed supply or procurement processes;
 - (c) modelling tools or techniques; and
 - (d) key publications and data sources;
- (5) key assumptions used to determine the **net electricity market benefit** of each **investment option**, including-
 - (a) discount rate;
 - (b) calculation period; and
 - cost per megawatt hour used to determine the value of expected unserved energy; and
- (6) expected net market benefit of each investment option.
- G5 Information relating to proposed investment only
 - identification of the **proposed investment** and, where the **proposed investment** is a **major capex project (staged)**, provide-
 - (a) a description of all the proposed staging projects of the major capex project
 (staged);
 - (b) full details of each **staging project** for which approval is being sought;

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development scenario variation or MED
scenario variation, as the case may be,
summary of consultation participants'
views on them.¶

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- (c) reasons for the proposed staging, including the extent to which splitting the major capex project (staged) into stages has the potential to reduce the timing, scope or cost uncertainties of the major capex project; and
- (d) the estimated project costs, proposed major capex project outputs and planned timing of each staging project for which approval is being sought;
- (2) detailed description of the components of the <u>major capex project or staging</u> <u>projects</u>, including at least-

 identification of the extent to which the <u>major capex project or each staging</u> project includes a transmission investment or a non-transmission solution;

- (b) a summary of requirements for completion of the major capex project or each staging project, such as property or property right acquisition, resource management approvals, asset purchases, asset construction and site remediation;
- (c) any proposed major capex allowance for the the major capex project or each staging project, which must be the P50, of capital expenditure and the estimated probability distribution of the P50;
- (d) where a **major capex allowance** is applicable, the **commissioning date assumption** and rationale for it;
- (e) any proposed maximum recoverable costs;
- (f) where **maximum recoverable costs** are applicable, the **completion date assumption** and rationale for it;
- (g) the major capex incentive rate where a different rate to the default rate of 15% is proposed and the rationale for it;
- (h) all relevant supporting technical information and costing information;
- where the <u>major capex</u> project <u>or a staging project includes</u>, a <u>non-transmission solution-</u>
 - (i) the proposed recovery scheme; and
 - (ii) an explanation of the relationship between any proposed major capex allowance and any proposed maximum recoverable costs for that non-transmission solution; and
- (j) proposed approval expiry date and rationale for it;
- (3) detailed description of the rationale for the **proposed investment**;

(4) summary of the key evidence that supports the reports, memos, financial or other data, results of modelling exercises, customer documentation and letters, and statements from **directors**;

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- (5) commentary as to how consistent the proposed investment is with the most recent integrated transmission plan, and if not, why not;
- (6) identification of anything associated with the proposed investment falling under any of clauses D4(1)(a) to D4(1)(g) that did not meet the definition of <u>electricity</u> <u>market benefit or cost element</u> only by virtue of its being unlikely to affect the <u>net</u> <u>electricity market benefit</u> to an appreciable degree;
- (7) description of considerations, assumptions and calculations used to determine that something falling under any of clauses D4(1)(a) to D4(1)(g) did not meet the definition of <u>electricity market benefit or cost element</u> by virtue of its being unlikely to affect the **net electricity market benefit** to an appreciable degree;
- (8) outcome of sensitivity analysis;
- (9) description of the methodology applied in undertaking sensitivity analysis;
- (10) explanation as to how robust to sensitivity analysis the proposed investment is;
- (11) reasons for any selection of a-
 - (a) **discount rate** other than 7%; and
 - (b) calculation period other than 20 years;
 - (c) cost per megawatt hour determined using paragraph (b) of the definition of value of expected unserved energy;
- <u>(12)</u> a description as to how <u>consistent with</u> <u>good electricity industry practice the</u> <u>proposed investment is;</u>
- (13) rationale for determining that the **proposed investment** may satisfy the **investment test** by reference to each subclause and paragraph of that test; and
- (14) a plan for monitoring costs, **project** milestones and deliverables that reflects the best information available to **Transpower**.

G6 Grid outputs

In relation to the major capex project or, each staging project for which Transpower seeks approval-

- (1) the major capex project outputs that are proposed;
- (2) the quantum of each proposed major capex project output;
- (3) <u>the rationale for the proposed major capex project outputs, including-</u>
 - (a) description of key factors and key assumptions relevant to their determination including the uncertainty associated with each such factor or assumption; and

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- (b) explanation of the extent to which the quantum of each proposed **major** capex project output reflects:
 - (i) the assets to be **commissioned**;
 - (ii) the forecast changes to the functional capability of the grid;
 - (iii) the quantum of forecast **electricity market benefit or cost elements** directly related to the **supply** of **electricity transmission services**; and
 - (iv) in respect of a **non-transmission solution**, any service provided by a third party;
- (4) explanation of the relationship between the proposed <u>major capex allowance</u> and the quantum of each <u>major capex project output</u> that is proposed including the sensitivity of the quantum of each <u>major capex project output</u> that is proposed to changes in the <u>proposed major capex allowance</u>, including commentary in terms of increases or decrease in the scope of the <u>project</u>;

(5) description of factors that may affect **Transpower's** ability to achieve each **major** capex project output that is proposed, including identification of each factor, with reasons, as within or outside **Transpower's** control; and

(6) in the case of a **non-transmission solution**, <u>a</u> description of the **transmission investment** it avoids in terms of both assets and expected costs avoided.

G7 Information on consultation

In respect of consultation, the specified information is a description as to how the consultation programme referred to in clause 3.3.1(9) was followed, including-

- (a) a list of the relevant consultation steps and confirmation by **Transpower** that each occurred;
- (b) a list of respondents to the consultation;
- (c) a description of all issues raised by interested persons in response to **Transpower's** intended **major capex proposal**;
- a summary of the arguments raised in respect of each issue to which paragraph (c) applies; and
- (e) in respect of the issues to which paragraph (c) applies, an explanation as to whether the **major capex proposal** accommodates the arguments referred to in paragraph (d); and
 - (i) if so, how; and
 - (ii) if not, why not.

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G8 Information on non-transmission solutions

In respect of **non-transmission solutions**, a description as to how the requirements of Schedule I Division 2 were met, including-

- (a) summary of the process followed to identify and assess **non-transmission solutions**;
- description of non-transmission solutions suitable to meet the relevant investment need identified either by Transpower or by consultation participants;
- (c) explanation as to how the non-transmission solutions to which paragraph_(b) applies were taken into account when determining the investment options and applying the investment test; and
- (d) description and justification of how any assets that would be **commissioned** by **Transpower** form part of the **non-transmission solution**.

G9 Additional information

Any additional supporting material **Transpower** reasonably considers is relevant to the decision of the **Commission** under clause 3.3.5.

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SCHEDULE H INFORMATION REQUIREMENTS FOR AMENDMENT AND SUNK COSTS APPLICATIONS FOR MAJOR CAPEX PROJECTS

DIVISION 1 AMENDMENTS TO MAXIMUM RECOVERABLE COSTS OR RECOVERY SCHEME

H1 Information to be provided

For the purpose of clause 7.4.2(3)(a), the amendment application must include the information listed or described in this division.

H2 Project identification and specifications

identification of-

- (a) the relevant non-transmission solution;
- (b) its maximum recoverable costs; and
- (c) its major capex allowance, if any.

H3 Amendments sought

- quantum of any proposed amendment to maximum recoverable costs;
- (2) calculations showing how the quantum of the proposed amendment was calculated;
- (3) assumptions made in making those calculations;
- (4) evidence in support of the calculations, including, where relevant-
 - (a) correspondence from manufacturers, suppliers, contractors and other relevant parties; and
 - (b) equipment test results;
- (5) an explanation of the relationship between the proposed maximum recoverable costs and any major capex allowance for that non-transmission solution; and
- (6) description of any amendment proposed to the recovery scheme.

H4 Progress of project

description of progress made on the non-transmission solution, including details of-

(a) planning processes undertaken;

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<#>Information to be provided¶

For the purpose of clause 7.4.2(3)(a), the amendment application must include the information listed or described in this division.¶

<#>Project identification and specifications¶

identification of relevant major capex project and its major capex allowance;¶ <#>Amendment sought¶

<#>quantum of proposed amendment to major capex allowance:¶

<#>calculations showing how the quantum of the proposed amendment was calculated;¶

<#>assumptions made in making those
calculations; and¶

<#>evidence in support of the calculations,
including, where relevant-¶

<#>correspondence from manufacturers, suppliers, contractors and other relevant parties; and¶

<#>equipment test results;¶
<#>proposed P50; and¶

<#>calculations, key assumptions and supporting evidence used to determine proposed P50, by reference to specified P50;¶

<#>Progress of project¶

description of progress made on the major capex project, including details of ¶ <#>planning processes undertaken; ¶ <#>resource management consents, other regulatory consents, and property rights and access rights obtained; ¶

<#>construction and labour contracts and arrangements made;¶ <#>construction completed; and¶

<#>testing undertaken;¶
<#>Current and forecast expenditure¶

<#>major capex incurred to the date of the
application;¶
<#>forecast major capex; and¶

<#>difference between forecast major
capex and the major capex allowance;¶

<#>Reasons for making the application¶
<#>reason for applying, including-¶
<#>description of key factors leading to the
application:¶

<#>commentary on the extent to which each key factor is within Transpower's control; and¶

<#>commentary on the extent to which each key factor was reasonably foreseeq

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- (b) resource management consents, other regulatory consents, and property rights and access rights obtained;
- (c) any request for information or request for services issued to third parties;
- (d) construction and labour contracts and arrangements made with providers of **non-transmission solutions**;
- (e) construction completed;
- (f) testing undertaken; and
- (g) the proportion (measured by reference to costs incurred by Transpower) of the non-transmission solution-
 - (i) already provided; and
 - (ii) remaining to be provided.

H5 Current and forecast expenditure

- (1) **operating expenditure** incurred, in aggregate;
- (2) operating expenditure incremental to the operating expenditure allowance specified in the IPP determination proposed to be classified as <u>a recoverable cost</u>, (in aggregate and broken down by type);
- (3) capital costs incurred proposed to be classified as **recoverable costs** (in aggregate and broken down by type);
- (4) total expenditure incurred proposed to be classified as a recoverable cost;
- (5) forecast remaining expenditure proposed to be classified as a recoverable cost;
- (6) difference between the proposed amendment to maximum recoverable costs and maximum recoverable costs.

H6 Reasons for making the application

- (1) reason for applying, including-
 - (a) description of key factors leading to the application;
 - (b) explanation as to the extent to which each key factor is within **Transpower's** control; and
 - explanation as to the extent to which each key factor was reasonably foreseeable by Transpower before the relevant major capex proposal was approved;
- (2) description of the implications of the proposed amendment on the relevant approved major capex project outputs;

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- (3) where an application for amendment to the approved major capex project outputs is being made concurrently, explanation as to how the proposed amendments relate to each other in light of the information to which <u>sub</u>clause (2) applies;
- (4) where no application for amendment to the approved major capex project outputs is being made concurrently, explanation as to why those approved major capex project outputs will remain appropriate were the proposed adjustment made in light of the information to which <u>sub</u>clause (2) applies;
- (5) statement as to whether the <u>expected</u> net electricity market benefit of the non-transmission solution is materially lower at the time of the application than when the relevant major capex proposal was approved and if so, current quantum of its expected net electricity market benefit; and
- (6) explanation as to why making the proposed amendment would promote the long-term benefit of **consumers**, taking into account-
 - (a) any costs that are sunk;
 - (b) the context in which the major capex proposal was made; and
 - (c) the context in which any subsequent amendments to the approval were made by the **Commission**.

DIVISION 2 AMENDMENT TO APPROVED MAJOR CAPEX PROJECT OUTPUTS

H7 Information to be provided

For the purpose of clause 7.4.2(3)(b), the amendment application must include the information listed or described in this division.

H8 Project identification and specifications

identification of relevant <u>approved</u> major capex project and its approved major capex project outputs;

H9 Amendment sought

- (1) proposed amendments to the approved major capex project outputs;
- (2) explanation as to how each proposed amendment was arrived at; and
- (3) description of the extent to which each proposed amendment reflects a change to the-
 - (a) assets to be commissioned;
 - (b) functional capability of the grid;

- (c) quantum of electricity market benefit or cost elements directly related to the supply of electricity transmission services that are likely to be achieved as a result of undertaking the project; and
- (d) in the case of a non-transmission solution, description of the extent to which each proposed amendment reflects a change to any relevant service provided by a third party;

H10 Progress of project

description of progress made on the <u>approved</u> major capex project, including <u>as</u> applicable details of-

- (a) planning processes undertaken;
- (b) resource management consents, other regulatory consents, and property rights and access rights obtained;
- (c) construction and labour contracts and arrangements made;
- (d) construction completed; and
- (e) testing undertaken;

H11 Current and forecast expenditure

- (1) in the case of a transmission investment:
 - (a) major capex incurred; and
 - (b) forecast remaining major capex;
- (2) in the case of a non-transmission solution:
 - (a) total costs incurred proposed to be classified as recoverable costs;
 - (b) total costs incurred in relation to assets to be **commissioned** in relation to the **non-transmission solution**;
 - (c) forecast remaining costs proposed to be classified as recoverable costs; and
 - (d) forecast remaining costs incurred in relation to assets to be **commissioned** in relation to the **non-transmission solution**.

H12 Reasons for making the application

- (1) reason for applying, including-
 - (a) description of key factors leading to the application;
 - (b) commentary on the extent to which each key factor is within **Transpower's** control and actions taken to mitigate it; and

- (c) commentary on the extent to which each key factor was reasonably foreseeable by **Transpower** before approval of the <u>relevant</u> <u>approved</u> major capex <u>project</u>;
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- (2) description and, where relevant, quantum of any current key assumptions different to those relied upon in applying the investment test in the major capex proposal;
- (3) description of the outcome of applying the investment test as it was applied in the major capex proposal modified by the proposed amendments and key assumptions described in subclause (2), including all relevant calculations and justifications for any exercises of judgment;
- (4) explanation as to why making the proposed amendment would promote the longterm benefit of **consumers** taking account of-
 - (a) the outcome referred to in subclause (3);
 - (b) any costs that are sunk;
 - (c) the context in which the major capex proposal was made; and
 - (d) the context in which any subsequent amendments to the approval were made by the **Commission**;
- where no application for amendment to the maximum recoverable costs, is being made concurrently, an explanation as to why those costs will remain appropriate were the proposed amendment to approved major capex project outputs made; and
- (6) <u>an explanation as to the appropriate major capex allowance if the proposed</u> amendment to the approved major capex project outputs were made.

DIVISION 3 AMENDMENT TO APPROVAL EXPIRY DATE

H13 Information to be provided

For the purpose of clause 7.4.2(3)(c), the amendment application must include the information listed or described in this division.

H14 Project identification and specifications

identification of relevant approved major capex project and-

- (a) its approval expiry date; and
- (b) its major capex allowance or maximum recoverable costs;

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H15 Amendment sought

proposed new approval expiry date;

H16 Progress of project

- where a major capex allowance is applicable, the commissioning date assumption;
- (2) where maximum recoverable costs are applicable, the completion date assumption; and
- (3) description of progress made on the <u>approved</u> major capex project, including details of-
 - (a) planning processes undertaken;
 - (b) details of resource management consents, other regulatory consents, and property rights and access rights obtained;
 - (c) details of resource management consents, other regulatory consents, and property rights and access rights still in progress;
 - (d) details of other consent, property or access negotiations in progress;
 - (e) any request for information or request for services issued to third parties;
 - (f) construction and labour contracts and arrangements made;
 - (g) construction completed; and
 - (h) testing undertaken;

H17 Current and forecast expenditure

- (1) major capex incurred;
- (2) forecast remaining major capex; and
- (3) amount of any **major capex** in the forecast remaining **major capex** in excess of the **major capex allowance** or **maximum recoverable costs**, as the case may be.

H18 Reasons for making the application

- (1) reason for making the application, including-
 - (a) a description of the key factors leading to the application;
 - (b) commentary on the extent to which each key factor is within **Transpower's** control; and

(c) commentary on the extent to which each key factor was reasonably foreseeable by **Transpower** before the approval of the relevant <u>approved</u> major capex <u>project</u>;

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- (2) description of the likely implications of the amendment, including the effect over the calculation period on other approved major capex projects where, in the case of an approved major capex project that is a-
 - transmission investment, the last asset to be delivered by the project has not yet been commissioned; or
 - (b) **non-transmission solution**, has not yet achieved **completion**.
- (3) statement as to whether the expected net electricity market benefit of the approved major capex project is materially lower at the time of the amendment application than when the relevant approved major capex project was approved and if so, current quantum of its expected net electricity market benefit; and
- (4) explanation as to why making the proposed amendment would promote the long-term benefit of **consumers**, taking into account:
 - (a) any costs that are sunk;
 - (b) the context in which the major capex proposal was made; and
 - (c) the context in which any subsequent amendments to the approval were made by the **Commission**.

DIVISION 4 SUNK COSTS APPLICATIONS

H19 Information to be provided

For the purpose of clause 7.4.3(1), the application for the **major capex sunk costs adjustment** must include the information listed or described in this division.

H20 Project identification and specifications

identification of relevant approved major capex project;

H21 Sunk costs approvals sought

quantum of major capex that is sought to be recovered as sunk costs;

H22 Current and forecast expenditure

information on current and forecast expenditure, including-

(a) major capex incurred;

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- (b) forecast remaining major capex to be incurred;
- (c) calculations showing how the amount in clause H21 was calculated;
- (d) assumptions made in calculating the amount in clause H21; and
- (e) evidence in support of the major capex incurred, forecast remaining major capital expenditure and the amount in clause H21, including, where applicable, documents and correspondence from manufacturers, suppliers, contractors and other relevant parties.

H23 Progress of project

description of progress made on the approved major capex project, including details of-

- (a) planning processes undertaken;
- (b) resource management consents, other regulatory consents, and property rights and access rights obtained;
- (c) construction and labour contracts and arrangements made;
- (d) construction completed;
- (e) testing undertaken; and
- (f) <u>approved</u> major capex project outputs delivered.

H24 Reasons for making the application

- (1) reason for applying, including-
 - description of key factors leading to the application, including the date of Transpower became aware of each of them;
 - (b) commentary on the extent to which each key factor was within **Transpower's** control and actions taken to mitigate its adverse effects; and
 - (c) commentary on the extent to which each key factor was reasonably foreseeable by **Transpower** before approval of the <u>relevant approved</u> major capex <u>project</u>; and
- (2) explanation as to why making the **major capex sunk costs adjustment** would promote the long-term benefit of **consumers**;

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SCHEDULE I MAJOR CAPEX CONSULTATION REQUIREMENTS

DIVISION 1 CONSULTATION ON OPTIONS

11 What Transpower must consult on

- (1) **Transpower** must, except where <u>the **Commission**</u> is satisfied that the inclusion of any matter outlined below would be unreasonable in the circumstances as provided for by clause 8.1.3(2)(b), consult on-
 - (a) its investment need;
 - (b) each demand and generation scenario variation;
 - (c) key assumptions;
 - (d) a long list of options to meet each investment need; and
 - (e) a short list of investment options to meet each investment need.
- (2) When consulting on the matters referred to in subclause (1)(e) that consultation must occur after any consultation on the matters referred to in the other paragraphs of that subclause has taken place.
- (3) For the avoidance of doubt, the matters referred to in subclauses (1)(a) to (1)(d) may be consulted upon together or separately.

12 Long list consultation requirements

- Options that must be contained on the long list for consultation purposes must be solutions for meeting the **investment need**.
- (2) When consulting on a long list of options, in its consultation **document**, **Transpower** must-
 - (a) provide a description of the relevant investment need that includes appropriate references to other documents referring to that need or a similar need, such as the most recent integrated transmission plan and any prior consultation document on the investment need;
 - (b) provide information on the key assumptions and <u>relevant</u> demand and generation scenarios it is developing for the purpose of applying the investment test;
 - specify any non-standard values or amounts, as the case may be, of the calculation period or value of expected unserved energy that it may use for the purpose of the investment test;

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- (d) specify any non-standard discount rate that it may use for the purpose of the investment test; and
- (e) in respect of each option
 - specify whether it is a transmission investment or non-transmission solution;
 - (ii) where it is a **non-transmission solution**, describe its type, where possible by reference to the things listed in the definition of **non-transmission solution**;

(iii) describe its features, by reference to at least type, location, and anticipated duration of the works required;

- (iv) identify if the option may be staged and if so, describe its potential stages; and
- (v) consult on the proposed staging of the options identified in subclause (iv).

13 Short list consultation requirements

- (1) When consulting on a short list of investment options, in its consultation document, Transpower must, except where Commission is satisfied that the inclusion of any matter outlined below would be unreasonable in the circumstances as provided for by clause 8.1.3(2)(b)-
 - (a) describe the <u>relevant</u> demand and generation scenarios it intends using for the purpose of the **investment test** and the weightings of those scenarios;
 and
 - (b) provide information on the relevant key assumptions, including-
 - (i) value of expected unserved energy, used to calculate the cost of involuntary demand curtailment borne by end users of electricity; and
 - (ii) any other variables material to application of the **investment test**.
- (2) In respect of each investment option on its short list, Transpower must, as a minimum-
 - (a) describe its features by reference to-
 - (i) the definition of **investment option**; and
 - (ii) at least its type, location, and anticipated duration of the works required.
 - (b) address any submissions raised in respect of each option described during the previous consultation;

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- (c) describe the likely **electricity market benefit or cost elements** and **project costs**;
- (d) specify which **electricity market benefit or cost elements** are treated as unquantified;
- (e) specify an estimate of the quantum of each likely **electricity market benefit or cost element** and **project cost** that is quantified; and
- specify the methodology or methodologies used to quantify electricity market benefit or cost elements and project costs;
- (3) In respect of the investment options on its short list, Transpower must-
 - demonstrate that they are appropriate in number and technology with respect to the **investment need** in question;
 - (b) describe the outcome of a preliminary application of the **investment test** based on the information required to be provided by subclauses (1) and (2);
 - (c) where the option Transpower considers satisfies the investment test is not the option with the highest <u>expected</u> net electricity market benefit, explain with reasons how the option satisfying the investment test was selected; and
 - (d) in respect of its application of the **investment test**-
 - describe the nature and application of the qualitative assessment used to take into account the contribution of any unquantified electricity market benefit or cost elements;
 - (ii) explain the approach taken to sensitivity analysis; and
 - (iii) specify any non-standard values or amounts, as the case may be, of the calculation period, discount rate or value of expected unserved energy used, and why those non-standard values or amounts are appropriate.

14 Key assumptions

For the purpose of clause I3, the key assumptions consulted upon must include the following things:

- (a) nature of the qualitative assessment used to take into account the contribution of associated unquantified electricity market benefit or cost elements;
- (b) <u>value of expected unserved energy</u> used to calculate the cost of involuntary demand curtailment borne by end users of electricity;
- (c) discount rate used; and

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(d) calculation period used.

DIVISION 2 NON-TRANSMISSION SOLUTIONS

- 15 Approach to consideration of non-transmission solutions to meet investment need
 - (1) The approach to enabling consideration of whether one or more non-transmission solution may meet an investment need must take into account-
 - (a) the size and nature of the investment need; and
 - (b) the likelihood that <u>one or more</u> **non-transmission solutions** could reasonably meet it.
 - (2) The approach must enable the-
 - (a) reasonable information needs of interested persons, including potential proponents of **non-transmission solutions** to be met; and
 - (b) views of interested persons, including potential proponents of **non-transmission solutions** to be expressed and taken into account.
 - (3) As a minimum, the approach must include the requirements that-
 - (a) when consulting on an investment need, Transpower must-
 - <u>(i)</u> invite interested persons to provide views or information relevant to possible **non-transmission solutions** to meet that need; and
 - (ii) provide sufficient information to enable interested persons, including potential proponents of non-transmission solutions to propose non-transmission solutions; and
 - (b) Transpower need not seek proposals for non-transmission solutions from interested persons prior to the initial consultations on its long list of investment options, but must take those views and information on or relevant to possible non-transmission solutions into account to the extent they have been provided prior to or during the period in which the long list is developed, including pro-actively engaging with the parties providing them, where appropriate; and
 - (c) when consulting on its long list of investment options, Transpower must -
 - (i) include potential non-transmission solutions in its list of investment options; and
 - (ii) invite interested potential proponents of **non-transmission solutions**to provide information or proposals on **non-transmission solutions**;
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(d) when <u>developing the</u> short list of **investment options** that includes a **non-transmission solution**, **Transpower** must invite <u>proponents of **non-transmission solutions**</u> to provide comprehensive proposals in respect of their **non-transmission solution(s)**.

(4) The invitations described in subclauses (3)(c) and (3)(d) must grant interested persons and proponents of non-transmission solutions 6 weeks to respond, subject to subclause (5).

(5) For the purpose of subclause (4), the approach may specify a longer or shorter period where appropriate in light of the factors specified in subclause (1).

DIVISION 3 MAJOR CAPEX PROJECT (STAGED)

- 16 Approach to consulting on major capex project (staged)
 - (1) The consultation requirements for the commencement of a major capex project (staged) are as set out in clauses I1 to I5.
 - (2) The consultation requirements for all subsequent unapproved staging projects of the major capex project (staged) are, in relation to all such staging projects consultation on the following matters:
 - (a) updates on the investment need;
 - (b) updated relevant demand and generation scenarios;
 - (c) updates of key assumptions;
 - (d) update of options to meet each investment need;
 - (e) invitation for proposals on non-transmission solutions; and
 - (f) the investment test if there is material difference between the method or parameters of the investment test between previous approved staging projects and subsequent staging projects of the major capex project (staged).
 - (3) The extent of consultation by **Transpower** for the purposes of subclause (2) shall be commensurate with the materiality of changes identified in subclause (2) but shall contain sufficient information to enable interested and affected parties to engage on all unapproved **staging projects** of the **major capex project (staged)**.

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