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[DRAFT] Transpower Input Methodologies Determination

Consolidating all amendments in force as of [XX] [XX] 2016 (a history of this determination, including all amendments, may be found over page).

Commerce Commission

Wellington, New Zealand

[XX] [XX] 2016

Determination history		
Determination date	Decision number	Determination name
29 June 2012	[2012] NZCC 17	Commerce Act (Transpower Input Methodologies) Determination 2010 ('principal determination')*
28 August 2014	[2014] NZCC 22	Transpower Input Methodologies Amendments Determination 2014
26 September 2014	[2014] NZCC 24	Electricity Lines Services Input Methodologies Determination Amendment 2014
29 October 2014	[2014] NZCC 27	Electricity Lines Services and Gas Pipeline Services Input Methodologies Determination Amendment (WACC percentile for price-quality regulation) 2014
27 November 2014	[2014] NZCC 32	Incremental Rolling Incentive Scheme Input Methodology Amendments Determination 2014
27 November 2014	[2014] NZCC 34	Transpower Input Methodologies Amendments Determination 2014 (No. 2)
11 December 2014	[2014] NZCC 38	Electricity Lines Services and Gas Pipeline Services Input Methodologies Determination Amendment (WACC percentile for information disclosure regulation) 2014
5 February 2015	[2015] NZCC 3	Transpower Input Methodologies Amendment Determination 2015
21 October 2015	[2015] NZCC 27	Transpower Input Methodologies Amendment Determination 2015 (No. 2)
[XX] [XX] 2016	[2016] NZCC [XX]	Transpower Input Methodologies Amendments Determination 2016

* The principal determination re-determined the input methodologies contained in the *Commerce Act (Transpower Methodologies) Determination 2010* (Commerce Commission Decision No.713, 22 December 2010), as amended by the *Commerce Act (Transpower Input methodologies) Amendment Determination (No. 1) 2011* (Commerce Commission Decision 736, 1 November 2011). A complete history of determinations relevant to the input methodologies applicable to Transpower is available on the Commission's website.

TRANSPOWER INPUT METHODOLOGIES DETERMINATION

PART 1	GENERAL PROVISIONS.....	4	
PART 2	INPUT METHODOLOGIES FOR INFORMATION DISCLOSURE	15	Deleted: 17
SUBPART 1	Cost allocation	15	Deleted: 17
SUBPART 2	Asset valuation	15	Deleted: 17
SUBPART 3	Treatment of taxation	22	Deleted: 24
SUBPART 4	Cost of capital.....	24	Deleted: 26
PART 3	INPUT METHODOLOGIES APPLYING TO INDIVIDUAL PRICE-QUALITY PATH.	31	Deleted: 33
SUBPART 1	Specification of price	31	Deleted: 33
SUBPART 2	Cost allocation	33	Deleted: 36
SUBPART 3	Asset valuation	34	Deleted: 36
SUBPART 4	Treatment of taxation	34	Deleted: 36
SUBPART 5	Cost of capital.....	34	Deleted: 36
SUBPART 6	Incremental rolling incentive scheme	39	Deleted: 42
SECTION 1	Annual IRIS incentive amounts for operating expenditure.....	39	Deleted: 42
SECTION 2	Price-quality path amendments and other events	41	Deleted: 45
SUBPART 7	Reconsideration of an individual price-quality path	42	Deleted: 47
SCHEDULE A	STANDARD PHYSICAL ASSET LIVES	46	Deleted: 52

Pursuant to Part 4 of the Commerce Act 1986 the Commerce Commission makes the following determination:

PART 1 GENERAL PROVISIONS

1.1.1 Title

This **determination** is the Transpower Input Methodologies Determination.

Comment [A1]: "Determination" is now a defined term.

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1.1.2 Application

(1) The **input methodologies** in this **determination** apply to **electricity transmission services**.

(2) The **input methodologies** in-

- (a) Part 2 apply in relation to information disclosure regulation under Subpart 4 of Part 4 of the Act; and
- (b) Part 3 apply in relation to individual price-quality regulation under Subpart 7 of Part 4 of the Act.

Comment [A2]: Drafting observation: Some drafting in the determination puts a premium on minimising the number of words, which can result in readability issues (as in this clause). We have made a number of suggested changes to help with that.

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Deleted: of Part 4 of the Act. ¶

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(3) For the purpose of subclause (2), this **determination** must be applied in accordance with-

- (a) the **input methodologies** in this **determination**; or
- (b) if clause 1.1.5(1) applies, a close alternative approach.

Comment [A3]: "Closest" implies that all possible alternatives have been identified and assessed, which is unlikely to be the case. Requiring the closest alternative makes the Commission's decisions overly susceptible to judicial review.

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1.1.3 Commencement Date

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.

Comment [A4]: Section (as in a section of an Act) is abbreviated to "s" in the determination.

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1.1.4 Interpretation

(1) In this **determination**:-

- (a) unless stated otherwise, references to Parts and Subparts are to named and numbered parts and subparts of this **determination**;
- (b) references to Subparts are to Subparts within the same Part in which the reference is made;
- (c) references to legislation or a **determination** include the legislation or **determination** as amended from time to time and any subsequent legislation or **determination** that supplements or replaces it;
- (d) unless the context otherwise requires, a word which denotes the singular also denotes the plural and vice versa; and
- (e) unless stated otherwise, any reference to an allowance, amount, cost, sum or value is a reference to an allowance, amount, cost, sum or value calculated in relation to **Transpower** in respect of a **disclosure year**.

Comment [A5]: Currently this concept is reflected in some references and definitions, but not all.

Deleted: determination

Comment [A6]: No longer used as defined terms.

Deleted: 67th percentile estimate of WACC means an estimate made for the purpose of-¶
<#>Part 2, in accordance with clause 2.4.5(5)(b), of the 67th percentile for the post-tax mid-point estimate of WACC; ¶
<#>Part 3, in accordance with clause 3.5.5(2)(b), of the 67th percentile ...

Deleted: ¶

(2) In this **determination**, including in the schedule to it, the words or phrases in bold type bear the following meanings:

2011 thresholds regulatory asset base means the regulatory asset base as defined in the **thresholds notice** as of 30 June 2011;

A

Act means the Commerce Act 1986;

actual opex has the meaning specified in clause 3.6.3(8);

adjustment to the opex incentive means the amount calculated in accordance with clause 3.6.4(1);

amount carried forward means, for any given **disclosure year**, the amount determined in accordance with clause 3.6.3;

auditor means-

- (a) whilst **Transpower** is a public entity (as defined in s 4 of the Public Audit Act 2001), the Auditor-General; and
- (b) where paragraph (a) does not apply, a **person** who is-
 - (i) qualified for appointment as an auditor of a company under the Companies Act 1993; and
 - (ii) **independent**;

B

base capex has the **same meaning as defined** in the **Capex IM**;

business day means any day on which statistics relating to trading in New Zealand government bonds are published by a financial information service such as Bloomberg or Reuters;

C

cap has the same meaning as defined in the **Capex IM**;

Capex IM means the *Transpower Capital Expenditure Input Methodology Determination [2012] NZCC 2*;

capex programme means a **base capex programme or major capex programme, as those terms are defined in the Capex IM**;

capex project means a **base capex project, as that term is defined in the Capex IM, or major capex project**;

capital expenditure, 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**;

catastrophic event has the meaning specified in clause 3.7.1;

change event has the meaning specified in clause 3.7.2;

closing RAB value means, for the purpose of-

- (a) Part 2, **the value determined in accordance with** clause 2.2.3(4); and

Comment [A7]: No longer used as a defined term.

Deleted: **actual controllable opex** means, in relation to a disclosure year, the amount of **operating expenditure** made by **Transpower** in the categories to which **allowed controllable opex** relates;

Deleted: ¶

Comment [A8]: No longer used as a defined term.

Deleted: **allowed controllable opex** means the allowance specified in an **IPP determination for operating expenditure** in categories specified as controllable;

Deleted: ¶

Comment [A9]: *Drafting observation:* There are several tabulation errors in the determination.

Comment [A10]: "Person" is not defined.

Deleted: person

Comment [A11]: The determination uses this form of words to refer to definitions in the Capex IM and other external documents.

Deleted: given

Deleted: , as amended

Comment [A12]: These terms are used in clause 2.2.7(3) but were not defined.

Comment [A13]: *Query:* This term is defined in the Capex IM. Can the determination refer to that definition?

Deleted: the value determined in accordance with

- (b) Part 3, [the value determined in accordance with](#) clause 2.2.3(4) as modified pursuant to clause 3.3.1;

collar has the same meaning as defined in the **Capex IM**;

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

commissioned means used by **Transpower** to provide **electricity transmission services**, save that in relation to-

- (a) **land** that is not **easement land**; or
- (b) an **easement**;

'commissioned' means acquired by **Transpower** where –

- (c) the **land** or **easement** is **base capex**; or
- (d) the acquisition was approved by the –
 - (i) **Electricity Commission** under Part F of the Electricity Governance Rules 2003;
 - (ii) **Commission** under s 54R(3)(b) of the **Act**; or
 - (iii) **Commission** in accordance with an [the Capex IM](#).

and [commission](#) shall be construed accordingly;

[commissioning date](#) means the date that an asset is first **commissioned**;

corporate tax rate means the rate of income taxation applying to companies as specified in the **tax rules**;

cost of debt means the amount specified for r_d in clause [2.4.1\(3\)](#);

D

debt premium [means](#), for the purpose of-

- (a) Part 2, [the value determined in accordance with](#) clause 2.4.4; and
- (b) Part 3, [the value determined in accordance with](#) clause 3.5.4;

depreciation, in relation to a **disclosure year**, means the allowance for that **disclosure year** to account for the diminution in an asset's remaining service life potential in the **disclosure year** in question determined in accordance with with clause 2.2.4(2);

[determination](#) means a determination by the **Commission** under s 52P of the **Act**;

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

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

Example: a reference to the nth disclosure year of a regulatory period means the nth disclosure year commencing in that disclosure year. The first disclosure year of a regulatory period will commence after the start of the regulatory period and the last disclosure year of a regulatory period will end after the end of the regulatory period;

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Comment [A14]: This is the same thing.

Deleted: input methodology determined pursuant to s 54S of the Act

Comment [A15]: For consistency with the definition of "supply"/"supplied".

Deleted: 'commission'

Comment [A16]: Query: This term is defined in the Capex IM. Can the determination refer to that definition?

Comment [A17]: Query: See comment below on clause 3.6.2(1). Should this definition have separate limbs for Part 2 and Part 3?

Deleted: 2.4.1(3)2.4.1(3)2.4.1(3)2.4.1(3)2.4.1(4)

Comment [A18]: Not used as a defined term.

Deleted: CPI has the same meaning as defined in the Capex IM;

Deleted: ¶

Deleted: has the meaning specified in and is the amount determined in accordance with

Comment [A19]: This definition removes the need to repeatedly refer to section 52P or to determinations being made by the Commission.

Comment [A20]: This is to deal with the different reference dates for disclosure years and regulatory periods.

disposed asset means an asset that, in the **disclosure year** in question, has been sold or transferred, or has been irrecoverably removed from the **Transpower's** possession without consent, but is not a **lost asset**;

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

E

easement means a right to use but not **exclusively** possess **land** belonging to another person or a right to prevent certain uses of another person's **land**;

easement land means **land** acquired with the intention of-

- (a) creating an **easement** in respect of it; and
- (b) disposing of the **land** thereafter;

EDB has the same meaning as defined in the Commerce Act (Electricity Distribution Input Methodologies) Determination 2010;

Electricity Authority means the authority established under s 12 of the Electricity Industry Act 2010;

Electricity Commission means the same body as the Electricity Governance Board established under s 172M of the Electricity Act 1992 as in force immediately before its substitution by s 14 of the Electricity Amendment Act 2004;

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

engineer means an individual who is-

- (a) a chartered professional engineer as defined in s 6 of the **Chartered Professional Engineers of New Zealand Act 2002**;
- (b) acting in that professional capacity; and
- (c) **independent**;

error event has the meaning specified in clause 3.7.3(1);

EV adjustment has the meaning specified in clause 3.7.4(6);

excluded asset means an asset that is-

- (a) not used to **supply electricity transmission services** as on the last day of the **disclosure year 2011**; or
- (b) **easement land**;

F

finance lease has the same meaning as under **GAAP**;

fixed life easement means an **easement** that-

- (a) is of fixed duration; or
- (b) whilst of indefinite duration, is to be held for a fixed period;

Comment [A21]: Easements typically do give a right of possession, just not exclusive possession.

Query: Should this definition also capture leases and licences of land? The former provides exclusive possession and the latter may also.

Comment [A22]: This is the full name of the Act.

Comment [A23]: *Drafting observation:* Clause 3.7.4(6) contains a straightforward definition and so there is a good case for bringing it up into clause 1.1.4(2). There are other examples of this, such as the revised definition of "qualifying debt" and "leverage" (the latter being 41% for both Parts 2 and 3).

forecast MAR has the same meaning as defined in [the IPP determination](#);

forecast opex has the meaning specified in clause 3.6.3(7);

found asset has the meaning specified in clause 2.2.8(1);

G

GAAP means generally accepted accounting practice in New Zealand, save that, where the cost of an asset is being determined in accordance with this [determination](#), only the cost model of recognition is applied, insofar as an election may be made between the cost model of recognition and the fair value model of recognition;

GPB means GDB or GTB, as-

- (a) 'GDB' is defined in the Commerce Act (Gas Distribution Input Methodologies) Determination 2010; and
- (b) 'GTB' is defined in the Commerce Act (Gas Transmission Input Methodologies) Determination 2010;

grid output has the same meaning as defined in the **Capex IM**;

grid output incentive rate has the same meaning as defined in the **Capex IM**;

[grid output target](#) has the same meaning as defined in the **Capex IM**;

I

ID determination means [the Transpower Information Disclosure Determination \[2014\] NZCC 5](#);

identifiable non-monetary asset has the same meaning as under **GAAP** save that goodwill is excluded;

incremental adjustment term means, [for the first disclosure year of RCP2](#), the amount determined in accordance with clause [3.6.6\(4\) of this determination before its amendment by the Transpower Input Methodologies Amendment Determination \[2016\]](#);

incremental change means, [for a disclosure year of RCP1](#), the amount determined for [the disclosure year in accordance with subclause \(1\), \(2\) or \(3\) of clause 3.6.6 of this determination before its amendment by the Transpower Input Methodologies Amendment Determination \[2016\]](#);

independent means neither in a relationship with, nor having an interest in, **Transpower** that is likely to involve him, her or it in a conflict of interest between his, her or its duties to **Transpower** and his, her or its duties to the **Commission**;

inflation rate has the meaning [that was specified in clause 3.6.6\(5\) of this determination immediately before its amendment by the Transpower Input Methodologies Amendment Determination \[2016\]](#);

initial RAB has the meaning specified in clause 2.2.1;

Comment [A24]: No longer used as a defined term.

Deleted: forecast CPI has the same meaning as defined in the **Capex IM**;

Deleted: ¶

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Deleted: determination

Comment [A25]: Used but not defined in the determination.

Comment [A26]: This can now be defined precisely, as the Capex IM is.

Deleted: an information disclosure determination in relation to **Transpower** made by the **Commission** under s 52P of the Act

Comment [A27]: There are many provisions relating to the calculation of these amounts (old clause 3.6.6) that are no longer required because the amounts have already been calculated. Those clauses can be collapsed into these definitions. The same comment applies to the definition of "inflation rate".

initial RAB value means value of an asset in the **initial RAB** determined in accordance with clause 2.2.2;

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

investment grade credit rated means endorsed with a credit rating by an established credit rating agency (such as Standard and Poor's) of "investment grade" on that agency's credit rating scale applicable to long-term investments;

IPP means **Transpower's** individual price-quality path;

Example: a reference to "the IPP" or "the IPP determination" means the IPP or IPP determination that is current at the time the reference is to be applied.

Comment [A28]: "IPP" is used in the determination to refer to Transpower's IPP specifically.

"IPP" and "IPP determination" are used more or less interchangeably in the determination. "IPP" will do in most cases.

Comment [A29]: This is to deal with Transpower having several IPPs over time.

Comment [A30]: Redundant (both "IPP" and "determination" are defined).

Deleted: IPP determination means any individual price-quality determination applying to Transpower made by the Commission under s 52P of the Act;

Deleted: ¶

Comment [A31]: Drafting observation: It is unusual to have a definition containing only exclusions.

land excludes-

- (a) buildings; and
- (b) easements;

leverage means the ratio of debt capital to total capital and, for the purpose of-

- (a) Part 2, is the amount specified in clause 2.4.2(1); and
- (b) Part 3, is the amount specified in clause 3.5.2(1);

listed project has the same meaning as defined in the **Capex IM**;

local authority has the same meaning as defined in s 5(1) of the Local Government Act 2002;

lost asset means an asset-

- (a) not included in the **initial RAB**; and
- (b) having, in relation to the **disclosure year in question**, an **unallocated opening RAB value**,

but determined by **Transpower** in that **disclosure year** never to have been used to provide **electricity transmission services**;

Deleted: in question

M

major capex has the same meaning as defined in the **Capex IM**;

major capex allowance has the same meaning as defined in the **Capex IM**;

major capex project has the same meaning as defined in the **Capex IM**;

mid-point estimate of WACC means, for the purpose of-

- (a) Part 2, the mid-point estimate of-
 - (i) vanilla **WACC**; or
 - (ii) post-tax **WACC**,

as the case may be, as each is estimated in accordance with clause 2.4.1; and

(b) Part 3, the mid-point estimate of-

- (i) vanilla **WACC**; or
- (ii) post-tax **WACC**,

as the case may be, as each is estimated in accordance with clause 3.5.1;

multi-rate PIE has the same meaning as defined in s YA 1 of the Income Tax Act 2007;

N

Nelson-Siegel-Svensson approach has the meaning specified in clause 2.4.4(6);

network spare means an asset that is held by **Transpower** to replace any other asset it holds should that other asset be withdrawn from use owing to failure or damage;

new investment contract means a 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 determined following a process that provided opportunities for-

- (i) affected **customers** to make or approve reasonable price-quality trade-offs; and
- (ii) the competitive provision of new **electricity transmission services** by parties other than **Transpower**;

O

opening RAB value means, for the purpose of-

- (a) Part 2, [the value determined in accordance with](#) clause 2.2.3(3); and
- (b) Part 3, [the value determined in accordance with](#) clause 2.2.3(3) as modified pursuant to clause 3.3.1;

operating cost means a cost incurred by **Transpower** relating to the **supply of electricity transmission services**, and excludes-

- (a) a cost that is treated as a cost of an asset [under GAAP](#);
- (b) amounts that are depreciation, tax, subvention payments, revaluations or an interest expense, in accordance with their meanings under **GAAP**;
- (c) **pass-through costs**;
- (d) **recoverable costs**; and
- (e) payments associated with a **finance lease**, where the **finance lease** has an **opening RAB value**;

Comment [A32]: Query: Customers of whom? Transpower or the person contracting for the investment (or both)?

Deleted: the value determined in accordance with

Comment [A33]: No longer used as a defined term.

Deleted: opening year means in respect of- ¶
<#>RCP1, second disclosure year of RCP1; and ¶
<#>regulatory periods after RCP1, first disclosure year of commencing in the regulatory period;

Deleted: <#>¶

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operating expenditure means **operating costs** after application of clause 3.2.1;

opex incentive amount means the amount determined in accordance with clause 3.6.2(1);

P

pass-through cost has the meaning specified in clause 3.1.2;

physical asset life has the meaning specified in clause 2.2.6;

prescribed investor rate has the same meaning as defined in [section YA1](#) of the Income Tax Act 2007;

price path means the price path in the IPP;

Q

qualifying debt has the meaning specified in clause 2.4.7;

qualifying issuer means a New Zealand resident limited liability company-

- (a) that-
 - (i) undertakes the majority of its business activities in Australia and New Zealand; or
 - (ii) is part of a corporate group that undertakes the majority of its business activities in Australia and New Zealand;
- (b) that-
 - (i) does not operate predominantly in the banking or finance industries; or
 - (ii) is part of a corporate group that does not operate predominantly in the banking or finance industries; and
- (c) that issues **vanilla NZ\$ denominated bonds** that are publicly traded;

qualifying rating means-

- (a) a Standard and Poor's long term credit rating of the specified grade; or
- (b) an equivalent long term credit rating of another internationally recognised rating agency;

quality standard means a **grid output target, cap, collar or grid output incentive rate for a revenue-linked grid output measure**;

R

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

RCP1 psuedo asset means the asset calculated in accordance with clause 2.2.9(2);

Deleted: or any subsequent legislation that supplements or replaces the provisions relating to prescribed investor rate in the Income Tax Act 2007

Comment [A34]: Useful definition for Subpart 7 of Part 3.

Comment [A35]: Redundant (given other defined terms).

Deleted: **programme** means a group of related **projects** with a common purpose;¶
project means a temporary endeavour requiring concerted effort, undertaken to create a defined outcome;

Deleted: ¶

Comment [A36]: Useful definition for Subpart 7 of Part 3.

Deleted:

RCP2 means the **regulatory period** commencing on 1 April 2015 and ending on 31 March 2020;

Comment [A37]: Used but not defined.

recoverable cost has the meaning specified in clause 3.1.3;

regulated goods or services has the same meaning as defined in s 52C of the **Act**;

regulated supplier means a supplier of **regulated goods or services**;

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

Deleted: determination

regulatory tax asset value has the meaning specified in clause 2.3.2(1);

related party means-

- (a) a **person** that, in accordance with **GAAP**, is related to **Transpower**, other than as a result of **Transpower** being a crown-owned entity; or
- (b) any part of **Transpower** that does not **supply electricity transmission services**;

Deleted: person

Deleted: a

remaining asset life means, for the purposes of:

- (a) clauses 2.2.4(1)(a) and 2.2.4(2)(a), **the term remaining of an asset's physical asset life** at the commencement of the **disclosure year** in question;
- (b) clauses 2.2.4(1)(b) and 2.2.4(2)(b), **the term remaining of an asset's physical asset life** at the asset's **commissioning date**;

Deleted: term remaining of an asset's physical asset life

Deleted: s

revenue-linked grid output measure has the same meaning as defined in the **Capex IM**;

S

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

standard error means estimated standard deviation;

standard physical asset life means life for an asset as specified in Schedule A;

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

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

T

tax rules means the rules applicable to **Transpower** for determining income tax payable in the Income Tax Act 2007 and any equivalent preceding legislation;

Deleted: (as amended from time to time,

term credit spread difference means the amount determined in accordance with clause 2.4.8;

Deleted: , or any subsequent legislation that supplements or replaces that Act)

term credit spread differential means, for the purpose of-

Deleted: the amount determined in accordance with

- (a) Part 2, [the amount calculated in accordance with](#) clause 2.4.9; and
- (b) Part 3, [the amount calculated in accordance with](#) clause 3.5.8;

term credit spread differential allowance means the sum of **term credit spread differentials**;

thresholds notice means the Commerce Act (Transpower Thresholds) Notice 2008;

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

U

unallocated closing RAB value means the value determined in accordance with clause 2.2.3(2);

unallocated depreciation means an allowance to account for the diminution in an asset's remaining service life potential in the **disclosure year** in question determined in accordance with clause 2.2.4(1);

unallocated initial RAB value means value of an asset in the **initial RAB** determined in accordance with clause 2.2.2(1);

unallocated opening RAB value means the value determined in accordance with clause 2.2.3(1);

V

value of commissioned asset means the value determined in accordance with clause 2.2.7;

value of found asset means the value determined in accordance with clause 2.2.8(2);

valuer means an individual who-

- (a) is registered as a valuer under the Valuers Act 1948;
- (b) holds a current practising certificate issued by-
 - (i) the Property Institute of New Zealand; or
 - (ii) the New Zealand Institute of Valuers;
- (c) has been engaged to act in his or her professional capacity as a valuer; and
- (d) is **independent**;

vanilla NZ\$ denominated bonds means senior unsecured nominal debt obligations denominated in New Zealand dollars without callable, puttable, conversion, profit participation, credit enhancement or collateral features;

W

WACC means weighted average cost of capital;

works under construction means an asset, or a collection of assets that-

- (a) has been or is being constructed by, or on behalf of, **Transpower**;
- (b) has not been **commissioned**; and

(c) **Transpower** intends to **commission**.

1.1.5 **Close alternative approach**

(1) The **Commission** may determine that a close alternative approach will be applied to any **input methodology** in this **determination** if **Transpower proposes the close alternative approach under subclause (2)**.

(2) **Transpower** may propose to the **Commission**, in accordance with subclause (3), that it considers a close alternative approach should apply to an **input methodology** where it identifies that the **input methodology** is unworkable.

(3) If **Transpower** proposes a close alternative approach, it must-

- (a) identify the unworkable **input methodology** and explain why it considers the **input methodology** is unworkable;
- (b) describe a close alternative approach that would apply instead of the unworkable **input methodology**; **and**
- (c) describe whether the close alternative approach is likely to have an **equivalent or non-equivalent effect on the IPP** to that of the unworkable **input methodology**.

(4) If the **Commission** applies a close alternative approach in accordance with subclause (1), it must-

- (a) identify the unworkable **input methodology**;
- (b) describe the close alternative approach that **applies** instead of the unworkable **input methodology**;
- (c) describe whether the close alternative approach is likely to have an **equivalent or non-equivalent effect on the IPP** to the unworkable **input methodology**; **and**
- (d) **publish its decision, including the matters specified in paragraphs (a) to (c)**.

(5) For the purposes of subclauses (1)-(4), an **input methodology** may be considered as unworkable if it cannot be reasonably applied as intended.

Comment [A38]: See comment above about the practicality and risk of "closest" versus "close".

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Comment [A39]: We do not consider the Commission should have the ability to apply a close alternative approach unless Transpower has asked for it. Without that limitation this clause undermines the certainty of Transpower's regulation.

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Comment [A40]: Query: What does this mean? Is it even possible for a "close" alternative to have a "non-equivalent effect"?

Also, effect on what? We have assumed on the IPP.

Deleted: ; and

Comment [A41]: The matters in paragraphs (a) to (c) are fundamentally matters of opinion rather than fact, and it is therefore inappropriate for them to be certified.

Anyway, there is no generally applicable means of certifying information in Transpower's determinations, either in terms of the content of the certification or the person certifying. If retained this paragraph would need to be expanded

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Comment [A42]: See comment above.

Comment [A43]: This input

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Comment [A44]: If the Commission

Comment [A45]: All of the above

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Comment [A46]: This is redundant

Deleted: <#>If the Commission

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Comment [A47]: Query: Is this the c

PART 2 INPUT METHODOLOGIES FOR INFORMATION DISCLOSURE

SUBPART 1 Cost allocation

2.1.1 Cost allocation process

(1) For the purpose of any requirement in an **ID determination** to disclose-

- (a) asset values;
- (b) **capital expenditure**; or
- (c) **operating costs**,

amounts or values thereof allocated to activities undertaken by **Transpower** to **supply electricity transmission services** other than **system operator** services must be net of amounts implicitly or explicitly recoverable by **Transpower** in respect of its **supply of system operator** services pursuant to any agreement in respect of such services between **Transpower** and the **Electricity Authority**.

(2) In this clause, 'asset value' means, in respect of an asset used by **Transpower** in the **supply of electricity transmission services**, its unallocated closing RAB value,

Comment [A48]: Drafting observation:
There is a lack of consistency in the use of inverted commas for terms that are defined in the body of the determination.

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SUBPART 2 Asset valuation

2.2.1 Composition of initial RAB

Initial RAB means assets included in the **2011 thresholds regulatory asset base**, less-

- (a) **excluded assets**;
- (b) intangible assets, unless they are-
 - (i) **finance leases**; or
 - (ii) **identifiable non-monetary assets**; and
- (c) **works under construction**.

Comment [A49]: Drafting observation:
Some references to RCP1 and past disclosure years have been removed, but not all of them. Some of those references may need to be retained to provide values used in later periods, but others can be deleted because they no longer serve a function.

Deleted: <#>the disclosure year 2011, its **unallocated initial RAB value**; and¶
<#>all other **disclosure years**, its **unallocated closing RAB value**.¶

2.2.2 Initial RAB values for assets

- (1) Subject to subclause (2), the unallocated initial RAB value of an asset is its value determined as of 30 June 2011 in accordance with the **thresholds notice**.
- (2) For the purpose of subclause (1), where an asset is used by **Transpower** in the **supply of system operator** services, the unallocated initial RAB value is the value of the asset had no allocation of asset value relevant to the **thresholds notice** been undertaken.
- (3) The initial RAB value of an asset is determined as the value allocated to **electricity transmission services** as a result of-
 - (a) adopting its **unallocated initial RAB value**; and
 - (b) applying clause 2.1.1 to it.

2.2.3 RAB roll forward

(1) Unallocated opening RAB value in respect of an asset in relation to-

- (a) the **disclosure year 2012**, is its **unallocated initial RAB value**; and
 - (b) a **disclosure year** thereafter, is its **unallocated closing RAB value** in the preceding **disclosure year**.
- (2) Unallocated closing RAB value means, in the case of-
- (a) a **found asset**, its **value of found asset**;
 - (b) a **disposed asset**, nil;
 - (c) a **lost asset**, nil;
 - (d) any other asset with an **unallocated opening RAB value**, the value determined in accordance with the formula-
unallocated opening RAB value - unallocated depreciation;
 - (e) an asset to which clause 2.2.7(4)(b)(i) applies, the result of the formula in paragraph (d), increased by the amount of expenditure described in clause 2.2.7(4)(b)(i) in the **disclosure year** in question; and
 - (f) any other asset having a **commissioning date** in the **disclosure year** in question, the value determined in accordance with the formula-
value of commissioned asset – unallocated depreciation.
- (3) Opening RAB value in respect of an asset, is, for-
- (a) the **disclosure year 2012**, its **initial RAB value**; and
 - (b) a **disclosure year** thereafter, its **closing RAB value** in the preceding **disclosure year**.
- (4) Closing RAB value, in respect of an asset, is determined as the value allocated to **electricity transmission services** by-
- (a) adopting its **unallocated closing RAB value**; and
 - (b) applying 2.1.1 to it.

2.2.4 Depreciation

- (1) Unallocated depreciation is determined, subject to subclause (3) and clause 2.2.5, in accordance with the formula, in the case of –
- (a) an asset with an unallocated opening RAB value –
 $[1 \div \text{remaining asset life}] \times \text{unallocated opening RAB value}$; and
 - (b) an asset having a **commissioning date** in the **disclosure year** in question –
 $[1 \div \text{remaining asset life}] \times \text{unallocated opening RAB value} \times \text{the fraction of the disclosure year from the commissioning date to the last day of the disclosure year}$.
- (2) Depreciation is determined, subject to subclause (3)(a), in accordance with the formula, in the case of-
- (a) an asset with an unallocated opening RAB value –
 $[1 \div \text{remaining asset life}] \times \text{opening RAB value}$; and
 - (b) an asset having a **commissioning date** in the **disclosure year** in question –

[1 ÷ remaining asset life]

×

value allocated to electricity transmission services by adopting the value of commissioned asset and applying clause 2.1.1 to it as if it were an asset value

×

the fraction of the disclosure year from the commissioning date to the last day of the disclosure year.

- (3) For the purposes of subclauses (1) and (2)-
- (a) unallocated depreciation and depreciation are nil in the case of-
 - (i) land;
 - (ii) an **easement** other than a **fixed life easement**; and
 - (iii) a **network spare** in respect of the period before which depreciation for the **network spare** in question commences under **GAAP**; and
 - (b) in all other cases, where an asset's **physical asset life** at the end of the **disclosure year** is nil-
 - (i) unallocated depreciation is the asset's **unallocated opening RAB value**; and
 - (ii) depreciation is the asset's **opening RAB value**.

2.2.5 Unallocated depreciation constraint

- (1) For the purpose of clause 2.2.4, and subject to subclause (2), the sum of **unallocated depreciation** of an asset calculated over its **physical asset life** may not exceed, in the case of an asset-
- (a) in the **initial RAB**, its **unallocated initial RAB value**; or
 - (b) not in the **initial RAB**, its **value of commissioned asset** or **value of found asset**.
- (2) For the purpose of subclause (1), the sum of increases to which clause 2.2.3(2)(e) refers for all **disclosure years** is treated as an increase in the **value of commissioned asset** of the asset in question.

2.2.6 Physical asset life

- (1) Physical asset life means a finite period relating to an asset, being, in the case of-
- (a) a **fixed life easement**, the fixed duration or fixed period (as the case may be) referred to in the definition of **fixed life easement**;
 - (b) a dedicated asset which is not expected to be used by **Transpower** to provide **electricity transmission services** beyond the term of the fixed term agreement relating to the asset between **Transpower** and the customer, at **Transpower's** election, the term of that agreement;
 - (c) an extended life asset or a refurbished asset, its physical service life potential as determined by **Transpower**;

- (d) a stranded asset, the service life potential specified by the **Commission**;
- (e) a reduced life asset, its physical service life potential determined by an **engineer**, subject to subclause (2);
- (f) a **found asset** for which a similar asset exists as described in subclause 2.2.8(2)(b)(i), the asset life applying to the similar asset;
- (g) the HVAC lines pseudo asset described in Schedule 1, clause 3(4)(d) of the **thresholds notice**, five years from 1 July 2011;
- (h) a non-network asset, its asset life as determined under **GAAP**;
- (i) an asset acquired or transferred from a **regulated supplier**, the asset life that the vendor would have assigned to the asset at the end of its **disclosure year** had the asset not been transferred;
- (j) an asset acquired or transferred from an entity other than a **regulated supplier**:
 - (i) where a similar asset exists, the asset life assigned to the similar asset;
or
 - (ii) where a similar asset does not exist, the physical service life potential determined by an **engineer**, subject to subclause (2);
- (k) an asset not referred to in paragraphs (a) to (j)-
 - (i) having a **standard physical asset life**, its **standard physical asset life**;
 - (ii) not having a **standard physical asset life**, if there is a similar physical asset in terms of asset type with an **unallocated opening RAB value**, the physical asset life of that similar physical asset; and
 - (iii) in all other cases, its physical service life potential determined by an **engineer**, subject to subclause (2);
- (l) a composite asset, the average asset life of the assets comprising it determined in accordance with paragraphs (a) to (k), with the modification that each such asset life must be weighted with respect to the proportion of its respective **opening RAB value** to the sum of the **opening RAB values** of the components in the earliest **disclosure year** in which all component assets were held by **Transpower**; and
- (m) the **RCP1 psuedo asset**, 31 years.

Comment [A50]: *Query:* "Its disclosure year" assumes the regulated supplier has the same reference dates for its disclosure year as Transpower, which may not be the case.

Should this drafting mirror the revised drafting in clause 2.2.7(1)(f)?

Comment [A51]: *Query:* Should this mirror the drafting of subclause (k)(ii).

Comment [A52]: *Drafting observation:* The determination variously uses "to" and "-" to designate a series of clauses or paragraphs. Ideally it would be consistent.

Also, we note that some of the cross-references are not automatic. There will need to be a thorough cross-reference check once the substantive changes are finalised.

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- (2) For the purpose of subclauses (1)(e), (1)(i)(ii) and (1)(k)(iii), a determination of physical service life potential made by an **engineer**-
 - (a) in relation to an asset with an **unallocated opening RAB value** is deemed applicable to all assets of similar asset type for which there is a requirement in this clause for an **engineer's** determination of physical service life potential; and
 - (b) must be evidenced by a report written by that **engineer** that includes an acknowledgement that the report may be publicly disclosed by **Transpower** pursuant to an **ID determination**.

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- (3) In this clause-

- (a) 'dedicated asset' means an asset operated for the benefit of a particular customer pursuant to a fixed term agreement for the **supply of electricity transmission services** between **Transpower** and that customer;
- (b) 'extended life asset' means an asset whose physical service life potential is greater than its **standard physical asset life**;
- (c) 'refurbished asset' means an asset on which work (other than maintenance) has been carried out resulting in an extension to its physical service life potential;
- (d) 'reduced life asset' means an asset determined by **Transpower** to have a physical service life potential shorter than its **standard physical asset life**;
- (e) 'stranded asset' means an asset-
 - (i) that has an **opening RAB value**; and
 - (ii) in respect of which, on application by **Transpower** and in accordance with any process for the purpose specified in **the IPP**, the **Commission** has determined a service life potential shorter than its **standard physical asset life**; and
- (f) 'composite asset' means a configuration of two or more assets that is not capable of operation in the absence of any of those assets.

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2.2.7 Value of commissioned assets

- (1) Value of commissioned asset, in relation to an asset, is the cost of the asset to **Transpower** determined by applying **GAAP** to the asset as on its **commissioning date**, except that the cost of-
 - (a) an intangible asset, unless it is-
 - (i) a **finance lease**; or
 - (ii) an **identifiable non-monetary asset**,
 is nil;
 - (b) an **easement** created by **Transpower** in respect of **easement land**, is limited to the sum of-
 - (i) legal and administrative costs incurred by **Transpower** in relation to the **easement's** creation;
 - (ii) compensation, determined by a **valuer**, for any amount that would otherwise have been paid by **Transpower** on arm's-length terms to a third party owner of **easement land** as compensation for the permanent and material reduction in the value of the **land** or disruption, on account of the **easement's** creation; and
 - (iii) the cost of financing the purchase of the **easement land**, determined in respect of the period on and from the date of acquisition until the **easement's** creation,

where any gain or loss made by **Transpower** on the sale or disposal of the **easement land** is ignored;

- (c) **easement land**, is nil;
- (d) an asset used in providing **electricity transmission services** pursuant to a **new investment contract**, is nil;
- (e) a **network spare** whose cost is not treated wholly as or part of the cost of an asset under **GAAP**, is nil;
- (f) an asset-
 - (i) acquired from another **regulated supplier**; and
 - (ii) used by that **regulated supplier** in the **supply of regulated goods or services**,

is limited to the unallocated closing RAB value of the asset for the **regulated supplier**, had the asset not been transferred, on the closing day of the **disclosure year** when the asset was transferred (as 'unallocated closing RAB value' is defined in the **input methodologies** applying to the **regulated goods or services supplied** by the other **regulated supplier**);

- (g) an asset that was previously used by **Transpower** in its **supply of other regulated goods or services** is limited to the unallocated opening RAB value of the asset in relation to those **other regulated goods or services** as on the day before the **commissioning date** (as 'unallocated opening RAB value' is defined in the **input methodologies** applying to the **regulated goods or services supplied** by **Transpower**); and
- (h) an asset acquired from a **related party** other than an asset to which paragraphs (f) or (g) apply is-
 - (i) its depreciated historic cost in respect of the **related party** determined by applying **GAAP** as on the day before the acquisition by the **Transpower**; or
 - (ii) where sufficient records do not exist to establish this cost, its market value as at its **commissioning date** as determined by a **valuer**.

- (2) When applying **GAAP** for the purpose of subclause (1), the cost of financing-
 - (a) is applicable only in respect of the period commencing on the date the asset becomes a **works under construction** and terminating on its **commissioning date**; and
 - (b) calculated using a rate not greater than **Transpower's** weighted average of borrowing costs for each applicable **disclosure year**.
- (3) For the purpose of subclause (2)(b), the 'weighted average of borrowing costs' is calculated for a **disclosure year** using principles set out in **GAAP**, where:

Comment [A53]: Presumably the costs need to be those incurred by Transpower rather than any borrower.

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Comment [A54]: Drafting observation: The determination variously uses ":" and "-" to start a list. Ideally it would be consistent.

- (a) the cost of financing rate is the weighted average of the costs applicable to borrowings in respect of **capital expenditure** that are outstanding during the **disclosure year**;
 - (b) the total costs applicable to borrowings outstanding, as used in calculating the weighted average, must include costs of borrowings made specifically for the purpose of any particular –
 - (i) **capex projects**; or
 - (ii) **capex programmes**; and
 - (c) the amount of borrowing costs capitalised during the **disclosure year** must not exceed the amount of borrowing costs incurred during the **disclosure year**.
- (4) For the avoidance of doubt-
- (a) revenue derived in relation to **works under construction** that is not included in regulatory income under an **ID determination** or preceding regulatory information disclosure requirements reduces the cost of an asset by the amount of the revenue where such reduction is not otherwise made under **GAAP**;
 - (b) where expenditure on an asset which forms part of the cost of that asset under **GAAP** is incurred by **Transpower** after the asset was first **commissioned**, such expenditure may be treated, at **Transpower's** election, as relating to-
 - (i) that asset; or
 - (ii) a separate asset.

Comment [A55]: "Capex" is not defined.

Deleted: capex

2.2.8 Value of found assets

- (1) Found asset means, in relation to a **disclosure year**, an asset-
- (a) other than **easement land**;
 - (b) other than an intangible asset, unless it is-
 - (i) a **finance lease**; or
 - (ii) an **identifiable non-monetary asset**; and
 - (c) not having a **commissioning date** in the **disclosure year** in question;
 - (d) the value of which-
 - (i) is not included as an **unallocated opening RAB value** in the **disclosure year** in question nor was so included in any prior disclosure year in accordance with clause 2.2.3(1); and
 - (ii) was not included in an **unallocated closing RAB value** in any prior **disclosure year** in accordance with clause 2.2.3(2); and

- (e) first determined by **Transpower** in the **disclosure year** in question to have a **commissioning date** after the **disclosure year 2011**.
- (2) The value of found asset for a **found asset** is-
- (a) its cost calculated consistently with **GAAP**; or
- (b) where sufficient records do not exist to establish its cost for the purposes of **GAAP**,
- (i) where an asset with an **unallocated opening RAB value** for that **disclosure year** is similar (in terms of asset type and age) to the **found asset**, the **unallocated opening RAB value** of the similar asset; and
- (ii) in all other cases, its market value as determined by a **valuer** as at the date that the asset was first determined by **Transpower** to have been **commissioned** in a prior **disclosure year** after the **disclosure year 2011**.

Comment [A56]: *Drafting observation:*
We have corrected this example of a defined term being unbolded, but there may be others.

Deleted: disclosure year

2.2.9 Adjustment to asset values and establishment of RCP1 pseudo asset

- (1) Each asset with a **commissioning date** in the period commencing
- (a) on the first day of **disclosure year 2012**; and
- (b) ending on the last day of the **disclosure year 2015**
- shall have its values calculated pursuant to-
- (c) clause 2.2.3(1); and
- (d) clause 2.2.3(3),
- for the **disclosure year 2016** adjusted by the amounts necessary to produce the value for each asset as if **depreciation** had applied for the **disclosure year** in which the asset's **commissioning date** occurred.
- (2) The 'RCP1 pseudo asset' is an asset established as of the first day of the **disclosure year 2016** with-
- (a) an **unallocated opening RAB value** equal to the sum of adjustments for all assets made under subclause (1) in respect of clause 2.2.3(1); and
- (b) an **opening RAB value** equal to the sum of all adjustments for all assets made under subclause (1) in respect of clause 2.2.3(3).

SUBPART 3 **Treatment of taxation**

2.3.1 Regulatory tax allowance

- (1) Regulatory tax allowance is determined by applying the **tax rules** and the **corporate tax rate** to the regulatory profit / (loss) before tax.
- (2) For the purpose of subclause (1), 'regulatory profit / (loss) before tax' means the amount of 'regulatory profit / (loss) before tax', as determined in accordance with an **ID determination**.
- (3) For the purpose of subclause (1), in applying the **tax rules** in respect of particular items of income and expenses included in 'regulatory profit / (loss) before tax'-

- (a) a tax deduction for interest incurred in relation to debt must be substituted with a tax deduction for notional deductible interest;
- (b) any tax deduction for depreciation in respect of an asset must be calculated by applying the **tax rules** to the **regulatory tax asset value**; and
- (c) the effect of any-
 - (i) tax losses (other than those produced from the **supply of electricity transmission services**); and
 - (ii) subvention payment,
 made by **Transpower** must be ignored.

- (4) For the purpose of subclause (3)(a), 'notional deductible interest' means the amount determined in accordance with the formula-

(sum of opening RAB values × leverage × cost of debt) + term credit spread differential allowance.

2.3.2 Regulatory tax asset value

- (1) Regulatory tax asset value, in relation to an asset, means the value determined in accordance with the formula-

tax asset value × result of asset allocation ratio.

- (2) For the purpose of subclause (1), 'tax asset value' means, in respect of-

- (a) an asset-
 - (i) acquired from a **regulated supplier** who used it to **supply regulated goods or services**; or
 - (ii) acquired or transferred from a **related party**,

the value of the asset determined by applying the tax depreciation rules to its notional tax asset value; and

- (b) any other asset, its adjusted tax value.

- (3) In this clause-

- (a) 'tax depreciation rules' means the **tax rules** that relate to the determination of depreciation allowances for tax purposes;
- (b) 'adjusted tax value' has the same meaning as in the tax depreciation rules.

- (4) 'Notional tax asset value' means, for the purpose of-

- (a) subclause (2)(a)(i), value after applying the tax depreciation rules to the tax asset value (as 'tax asset value' is defined in the **input methodologies** applying to the **regulated goods or services** in question) in respect of the **disclosure year** in which the asset was acquired; and
- (b) subclause (2)(a)(ii), value in respect of the **disclosure year** in which the asset was acquired or transferred that is-
 - (i) consistent with the **tax rules**; and

(ii) limited to its **value of commissioned asset**.

(5) For the purpose of subclause (1), 'result of asset allocation ratio' means, where an asset or group of assets maintained under the **tax rules**-

(a) has a matching asset or group of assets maintained for the purpose of Subpart 2, the value obtained in accordance with the formula-

opening RAB value or sum of opening RAB values, as the case may be

÷

unallocated opening RAB value or sum of unallocated opening RAB values, as the case may be,

applying the formula in respect of the asset or smallest group of assets maintained for the purpose of Subpart 2 that has a matching asset or group of assets maintained under the **tax rules**; and

(b) does not have a matching asset or group of assets maintained for the purpose of Subpart 2, the value of the asset allocated to the **supply of electricity transmission services** were clause 2.1.1 to apply to the asset or group of assets.

SUBPART 4 Cost of capital

2.4.1 Methodology for estimating weighted average cost of capital

(1) The **Commission** will determine a mid-point estimate of vanilla **WACC** for each **disclosure year**-

(a) in respect of the 5 years commencing on the first day of the **disclosure year** in question;

(b) within 1 month of the start of the **disclosure year** in question; and

(c) in accordance with the formula-

$$r_d L + r_e(1 - L).$$

(2) The **Commission** will determine a mid-point estimate of post-tax **WACC** for each **disclosure year**-

(a) in respect of the 5 years commencing on the first day of the **disclosure year** in question;

(b) within 1 month of the start of the **disclosure year** in question; and

(c) in accordance with the formula-

$$r_d(1 - T_c)L + r_e(1 - L).$$

(3) In this clause-

L is **leverage**;

r_d is the cost of debt and is estimated in accordance with the formula:

Deleted: the disclosure year 2011 and

Deleted: thereafter

Comment [A57]: Query: If the Part 2 WACC applies to a disclosure year then why does it need to be "in respect of" 5 years?

Comment [A58]: Subclause (3) is about disclosure year 2011 and can be deleted.

Deleted: subject to subclause (3),

Deleted: the disclosure year 2011 and

Deleted: thereafter

Comment [A59]: See comment above.

Deleted: subject to subclause (3),

Deleted: <#>The Commission will estimate or determine, as the case may be, the amounts or values-¶
<#>to which this subclause applies; and¶
<#>in respect of the disclosure year 2011, ¶
as soon as practicable after this determination comes into force.¶

$r_f + p + d$;

r_e is the cost of equity and is estimated in accordance with the formula:

$r_f(1 - T_i) + \beta_e TAMRP$;

T_c is the average corporate tax rate;

r_f is the risk free rate;

p is the **debt premium**;

d is the debt issuance costs;

T_i is the average investor tax rate;

β_e is the equity beta; and

$TAMRP$ is the tax-adjusted market risk premium.

(4) For the purpose of this clause-

- (a) the average investor tax rate, the equity beta, the debt issuance costs, the average corporate tax rate and the tax-adjusted market risk premium are the values specified in or determined in accordance with clause 2.4.2; and
- (b) the risk-free rate must be estimated in accordance with clause 2.4.3.

2.4.2 Fixed WACC parameters

(1) Leverage is 41%.

(2) 'Average investor tax rate' is the average of the investor tax rates that, as at the date that the estimation is made, will apply to each of the **disclosure years** in the 5 year period commencing on the first day of the **disclosure year** in question.

(3) For the purpose of subclause (2), 'investor tax rate' is, for each **disclosure year**, the maximum **prescribed investor rate** that, as at the date that the estimation is made, will apply at the start of that **disclosure year** to an individual who is-

- (a) resident in New Zealand; and
- (b) an investor in a **multi-rate PIE**.

(4) The average corporate tax rate is the average of the **corporate tax rates** that, as at the date that the estimation is made, will apply during the 5 year period commencing on the first day of the **disclosure year** in question.

(5) 'Equity beta' is 0.58.

(6) 'Debt issuance costs' are 0.2%.

(7) 'Tax-adjusted market risk premium' is 7.0%.

2.4.3 Methodology for estimating risk-free rate

The **Commission** will estimate a risk-free rate-

- (a) for each **disclosure year**; and
- (b) subject to clause **1.1.1(1)**, within 1 month of the start of the **disclosure year** in question,

Comment [A60]: Query: Is it necessary to average over 5 years when the Part 2 WACC is re-determined annually?

Comment [A61]: For consistency with clause 3.5.2(3), but possibly unnecessary given the comment above.

Deleted: applicable

Comment [A62]: See comment above.

Comment [A63]: Redundant.

Deleted: , for a 5 year period commencing on the first day of a **disclosure year**,

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by-

- (c) obtaining, for notional benchmark New Zealand government New Zealand dollar denominated nominal bonds the wholesale market linearly-interpolated bid yield to maturity, for a residual period to maturity equal to 5 years on each **business day** in the 3 months preceding the start of the **disclosure year**;
- (d) calculating the annualised interpolated bid yield to maturity for each **business day**; and
- (e) calculating the unweighted arithmetic average of the daily annualised interpolated bid yields to maturity.

2.4.4 Methodology for estimating debt premium

(1) Debt premium means the spread between-

- (a) the bid yield to maturity on **vanilla NZ\$ denominated bonds** that-
 - (i) are issued by an **EDB** or a **GPB**;
 - (ii) are publicly traded;
 - (iii) have a **qualifying rating** of grade BBB+; and
 - (iv) have a remaining term to maturity of **at least** 5 years; and
- (b) the contemporaneous interpolated bid yield to maturity of benchmark New Zealand government New Zealand dollar denominated nominal bonds having a remaining term to maturity of 5 years.

(2) The **Commission** will, in accordance with subclause (3), determine an estimate of an amount for the debt premium-

- (a) for each **disclosure year**; and
- (b) within 1 month of the start of each **disclosure year**.

(3) The amount of the debt premium will be estimated by-

- (a) identifying publicly traded **vanilla NZ\$ denominated bonds** issued by a **qualifying issuer** that are-
 - (i) **investment grade credit rated**; and
 - (ii) of a type described in the paragraphs of subclause (4);
- (b) in respect of each bond identified in accordance with paragraph (a)-
 - (i) obtaining its wholesale market annualised bid yield to maturity;
 - (ii) calculating by linear interpolation with respect to maturity, the contemporaneous wholesale market annualised bid yield to maturity for a notional benchmark New Zealand government New Zealand dollar denominated nominal bond with the same remaining term to maturity; and
 - (iii) calculating its contemporaneous interpolated bid to bid spread over notional benchmark New Zealand government New Zealand dollar

Comment [A64]: We assume this is what is intended, rather than exactly 5 years

Comment [A65]: *Drafting observation:* In some places the Commission is required to determine estimates and in other places merely to estimate. In clause 2.4.1(3) the Commission gets a choice whether to estimate or determine. Is there an underlying logic to those language differences? If not then the drafting should be made consistent.

Deleted: subject to clause 2.4.1(3),

denominated nominal bonds with the same remaining term to maturity, by deducting the yield calculated in accordance with sub-paragraph (ii) from the yield obtained in accordance with sub-paragraph (i),

for each **business day** in the 3 months immediately preceding the start of the **disclosure year**;

- (c) calculating, for each bond identified in accordance with paragraph (a), the unweighted arithmetic average of the daily spreads identified in accordance with paragraph (b)(iii); and
- (d) subject to subclause (4), estimating, by taking account of the average spreads identified in accordance with paragraph (c), and having regard to the debt premium estimated from applying the **Nelson-Siegel-Svensson approach**, the average spread that would reasonably be expected to apply to a **vanilla NZ\$ denominated bond** that-
 - (i) is issued by an **EDB** or a **GPB**;
 - (ii) is publicly traded;
 - (iii) has a **qualifying rating** of grade BBB+; and
 - (iv) has a remaining term to maturity of at least 5 years.

Comment [A66]: Redundant.

Deleted: in accordance with subclause (6)

(4) For the purpose of subclause (3)(d), the **Commission** will have regard, subject to subclause (5), to the spreads observed on the following types of **vanilla NZ\$ denominated bonds** issued by a **qualifying issuer**:

- (a) those that-
 - (i) have a **qualifying rating** of grade BBB+; and
 - (ii) are issued by an **EDB** or a **GPB**;
- (b) those that-
 - (i) have a **qualifying rating** of grade BBB+; and
 - (ii) are issued by an entity other than an **EDB** or a **GPB**;
- (c) those that-
 - (i) have a **qualifying rating** of a grade different to BBB+; and
 - (ii) are issued by an **EDB** or a **GPB**; and
- (d) those that-
 - (i) have a **qualifying rating** of a grade different to BBB+; and
 - (ii) are issued by an entity, other than an **EDB** or a **GPB**.

(5) For the purpose of subclause (4)-

- (a) progressively lesser regard will ordinarily be given to the spreads observed on the bond types in accordance with the order in which the bond types are described in subclause (4);
- (b) the spread on any bond of the type described in subclause (4) that has a remaining term to maturity of less than 5 years will ordinarily be considered

- to be the minimum spread that would reasonably be expected to apply on an equivalently credit-rated bond issued by the same entity with a remaining term to maturity of at least 5 years; and
- (c) the **Commission** will adjust spreads observed on bonds described under subclauses (4)(b) to (4)(d) to approximate the spread that is likely to have been observed had the bonds in question been of the type described in subclause (4)(a).

- (6) The 'Nelson-Siegel-Svensson approach' means a method for modelling yield curves and term structures of interest rates which establishes a relationship between term to maturity and the **debt premium**, and where a curve is generated by changing the parameters of a yield curve functional form to minimise the squared deviation between estimated and observed values.

Comment [A67]: And for the purpose of clause 3.5.4(3)(d)

Deleted: For the purposes of subclause (3)(d),

Deleted: t

2.4.5 Methodology for estimating the WACC range and the 67th percentile of the WACC

- (1) The **Commission** will determine a WACC range for each of vanilla WACC and post-tax WACC
- (a) for each **disclosure year**; and
- (b) subject to clause 2.4.1(3), within 1 month of the start of the disclosure year in question.

Comment [A68]: There is only one mid-point estimate of WACC, which is the 50th percentile.

Deleted: each mid-point estimate of WACC

- (2) For the purpose of subclause (1), 'WACC range' means the values falling between the 25th percentile and 75th percentile inclusive of vanilla WACC and post-tax WACC.
- (3) For the purpose of subclause (2)-

Deleted: the mid-point estimate of WACC

(a) the 75th percentile must be determined in accordance with the formula-
mid-point estimate of WACC + 0.674 x standard error; and

(b) the 25th percentile must be determined in accordance with the formula-
mid-point estimate of WACC - 0.674 x standard error,

where the **standard error** of ≤ 0.0113 .

Deleted: \leq the mid-point estimate of WACC must be treated as the 50th percentile; and \leq the \leq

- (4) The **Commission** will determine a 67th percentile estimate of each of vanilla WACC and post-tax WACC –
- (a) for each **disclosure year**; and
- (b) within 1 month of the start of the disclosure year in question.

Deleted: the relevant mid-point estimate of WACC

- (5) For the purpose of subclause (4), the 67th percentile must be determined in accordance with the formula-

Deleted: -

Moved (insertion) [1]

(a) x
mid-point estimate of WACC + 0.440 x standard error,

where the **standard error** of ≤ 0.0113 .

Deleted: \leq the mid-point estimate of WACC must be treated as the 50th percentile; and \leq

Moved up [1]: the 67th percentile must be determined in accordance with the formula-

Deleted: the relevant mid-point estimate of WACC

2.4.6 Publication of estimates relating to cost of capital

The **Commission** will publish all determinations and estimates that it is required to make by this Subpart-

- (a) on its website; and
- (b) no later than 1 month after having made them.

2.4.7 Qualifying debt

Qualifying debt means a line of debt-

- (a) with an original tenor greater than 5 years; and
- (b) issued by **Transpower**.

Comment [A69]: No other terms are defined here.

Deleted: Interpretation of terms relating to term credit spread differential

2.4.8 Term credit spread difference

- (1) Term credit spread difference is determined in accordance with the formula-

$$T \times U,$$

where-

- (a) 'T' is the amount determined in accordance with the formula-

$$0.000559 \times (\text{original tenor of the **qualifying debt** - 5)$$
- (b) 'U' is the book value in New Zealand dollars of the **qualifying debt** at its date of issue.

- (2) For the purpose of this clause, where the **qualifying debt** is issued to a **related party**, 'original tenor of the **qualifying debt**' means the-

- (a) tenor of the **qualifying debt**; or
- (b) period from the **qualifying debt's** date of issue to the earliest date on which its repayment is or may be required,

whichever is the shorter.

2.4.9 Methodology for estimating term credit spread differential

- (1) This clause applies to the determination of the amount of any **term credit spread differential** in respect of a **qualifying debt** for the purpose of disclosure pursuant to an **ID determination** of a-

- (a) **term credit spread differential allowance**; or
- (b) **term credit spread differential**.

- (2) Disclosure to which this clause applies may only be made by **Transpower** if its debt portfolio, as at the date of its most recently published audited financial statements, has a weighted average original tenor greater than 5 years.

- (3) Term credit spread differential is the amount determined in accordance with the formula-

$$(A \div B) \times C \times D,$$

where-

- (a) 'A' is the sum of the-
 - (i) **term credit spread difference**; and
 - (ii) the debt issuance cost re-adjustment;
 - (b) 'B' is the book value of **Transpower's** total interest-bearing debt as at the date to which its financial statements audited and published in the **disclosure year** in question relate;
 - (c) 'C' is **leverage**; and
 - (d) 'D' is the average of-
 - (i) the sum of **opening RAB values**; and
 - (ii) the sum of **closing RAB values**.
- (4) For the purpose of subclause (3)(a)(ii) the debt issuance cost re-adjustment is the amount determined in accordance with the formula-
- (0.01 ÷ original tenor of the qualifying debt - 0.002) × book value in New Zealand dollars of the **qualifying debt** at its date of issue,*
- which amount, for the avoidance of doubt, will be a negative number.

PART 3 INPUT METHODOLOGIES APPLYING TO INDIVIDUAL PRICE-QUALITY PATH

SUBPART 1 Specification of price

3.1.1 Price

For the purpose of s 53M(1)(a) of the **Act**, the maximum revenues that may be recovered by **Transpower** will be specified in a **determination** as a total revenue cap, net of-

- (a) the sum of **pass-through costs**; and
- (b) the sum of **recoverable costs**.

Deleted: s 52P

Deleted: determination

3.1.2 Pass-through cost requirements

(1) A pass-through cost is a cost that-

- (a) is listed in subclause (2); or
- (b) is a levy, other than one listed in subclause (2), that meets the criteria specified in subclause (3).

(2) For the purpose of subclause (1)(a), the costs are-

- (a) rates on system fixed assets paid or payable by **Transpower** to a **local authority** under the Local Government (Rating) Act 2002; and
- (b) levies payable under regulations made under-
 - (i) s 53ZE of the **Act**; or
 - (ii) the Electricity Industry Act 2010.

(3) For the purpose of subclause (1)(b), the criteria are that the levy-

- (a) is-
 - (i) associated with the provision of **electricity transmission services**;
 - (ii) outside the control of **Transpower**;
 - (iii) not a **recoverable cost**;
 - (iv) appropriate to be passed through to **Transpower's** customers; and
 - (v) one in respect of which provision for its partial or full recovery is not made explicitly or implicitly in the **IPP**; **and**
- (b) was reasonably unforeseen at the time the **IPP** was made.

(4) In this clause, 'levy' means a tax, charge or fee directly imposed by or under legislation-

- (a) on-
 - (i) **Transpower** alone; or
 - (ii) a class of persons (other than the general public or businesses in general) that includes **Transpower**; or
- (b) in relation to **electricity transmission services**.

Deleted: determination

Deleted: ;

Comment [A70]: Redundant (everything comes into effect during a disclosure year).

Comment [A71]: The IPP determination does not define pass-through costs. If a levy meets the requirements of this subclause then it should automatically be treated as a pass-through.

Deleted: <#>comes into effect during any **disclosure year** commencing in a **regulatory period**; and

Deleted: <#>¶
<#>is specified as a 'pass-through cost' by way of amendment to the **IPP determination**.

Deleted: <#>¶

3.1.3 Recoverable costs

(1) A recoverable cost is a cost that is-

- (a) any amount that is-
 - (i) an **opex incentive amount**; or
 - (ii) a positive net balance determined in accordance with clause 3.6.7(2), provided that any requirements pursuant to an **ID determination** regarding **auditor** certification of any value determined in accordance with that clause have been met;
- (b) subject to subclause (2), an instantaneous reserves availability charge, being a charge allocated to **Transpower** under-
 - (i) rule 8.59 of the Electricity Industry Participation Code; or
 - (ii) any Act or regulations that replace that rule,
 net of any rebate received by **Transpower** in accordance with rule 8.65 of the Electricity Industry Participation Code;
- (c) a transmission alternative operating cost, subject to the requirements in subclause (3), not to exceed the-
 - (i) actual transmission alternative operating cost incurred by **Transpower**; or
 - (ii) upper limit of transmission alternative operating costs approved in accordance with subclause (3),
 whichever is lower;
- (d) in relation to a **major capex project** that has been approved by the **Commission** under the **Capex IM**, and subject to the requirements in subclause (3), any operating costs –
 - (i) incurred after the date of approval of the **major capex project** and in relation to the **major capex project**;
 - (ii) are not otherwise able to be recovered as part of the **major capex allowance** on the basis that the costs are not **capital expenditure**; and
 - (iii) where the sum of the operating costs and the **major capex** approved by the **Commission** in relation to the **major capex project** does not exceed the **major capex allowance**; and
- (e) an amount determined by the **Commission** and specified in the IPP following a reconsideration and amendment of the **IPP** under clauses 3.7.4(2)(a) and 3.7.5(1) for the prudent net additional operating costs, in excess of those provided in the IPP, incurred in responding to a **catastrophic event**.

(2) For the purpose of subclause (1)(b), an instantaneous reserves availability charge excludes-

- (a) any 'event charges' payable by **Transpower**, as defined under-

Deleted: an

Deleted: determination

Comment [A72]: *Query:* Is it necessary/appropriate to treat this as a type of recoverable cost? For example, it seems just as likely that the amendment could be an increase in the opex or capex allowance.

Also, why would costs caused by a catastrophic event be treated differently to costs caused by a change event or error event?

Deleted: an

Deleted: determination

- (i) rule 8.64 of the Electricity Industry Participation Code, or
 - (ii) any Act or regulations that replace that rule;
- (b) 50% of any such charge incurred by **Transpower**, except one incurred as a direct result of decommissioning of Pole 1 of the HVDC link, in relation to an asset remaining out of service after an initial period of 14 consecutive days out of service, insofar as the cumulative amount so incurred is less than or equal to 1% of **Transpower's forecast MAR** for the **disclosure year** in which the event causing the asset to be out of service commences, as specified in the **IPP**;
- (c) any such charge treated as **capital expenditure** (in accordance with **GAAP**) by **Transpower** in relation to the control systems integration of Pole 2 and the commissioning of Pole 3 of the HVDC link; and
- (d) any such charge that is treated as having been inefficiently incurred under **GAAP**.
- (3) For the purpose of subclause (1)(c) and subclause (1)(d), the requirements are that the cost must-
- (a) be **operating expenditure**;
 - (b) be incremental to the **operating expenditure** allowance specified in the **IPP**; and
 - (c) have been approved by the-
 - (i) **Electricity Commission** under Part F of the Electricity Governance Rules 2003;
 - (ii) **Commission** in accordance with s 54R(3)(b) of the **Act**; or
 - (iii) **Commission** in accordance with any input methodology determined pursuant to s 54S of the **Act**.
- (4) In this clause-
- (a) 'Act' and 'Regulations' have the same meanings as defined in s 29 of the Interpretation Act 1999; and
 - (b) 'Electricity Industry Participation Code' has the same meaning as 'code' is defined in the Electricity Industry Act 2010.

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Deleted: by the Commission

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SUBPART 2 Cost allocation

3.2.1 Cost allocation

- (1) For the purpose of making an **IPP** information provided to the **Commission** by **Transpower** regarding **Transpower's operating costs** and **capital expenditure**, whether actual or forecast, must be provided in accordance with clause 2.1.1 with necessary modifications.
- (2) For the avoidance of doubt, in applying subclause (1), any reference to 'any requirement in an **ID determination**' in Subpart 1 of Part 2 means 'any requirement specified by the **Commission**'.

Deleted: determination

SUBPART 3 Asset valuation

3.3.1 Asset valuation

For the purpose of making an IPP-

- (a) the value of an asset; and
- (b) any allowance for depreciation,

must be determined in accordance with the **input methodologies** specified in Subpart 2 of Part 2, with necessary modifications to allow-

- (c) such values or allowances to be calculated on a forecast basis where required; and
- (d) for the purposes of determining **forecast MAR** and associated annual wash-ups, the determination of the **value of commissioned asset** by reference to approved amounts of **capital expenditure**.

Deleted: determination

SUBPART 4 Treatment of taxation

3.4.1 Treatment of taxation

- (1) For the purpose of making an IPP, **Transpower's regulatory tax allowance** whether on an actual or forecast basis, must be determined in accordance with the **input methodologies** specified in Subpart 3 of Part 2 with necessary modifications.
- (2) For the avoidance of doubt, in applying subclause (1), 'as determined in accordance with an **ID determination**' in clause 2.3.1(2) shall be construed as 'as specified by the **Commission**'.

Deleted: determination

SUBPART 5 Cost of capital

3.5.1 Methodology for estimating weighted average cost of capital

- (1) The **Commission** will determine a mid-point estimate of vanilla **WACC** for each regulatory period-

- (a) as of the first **business day** of the month 7 months prior to the start of the regulatory period;
- (b) in respect of the regulatory period;
- (c) no later than 6 months prior to the regulatory period; and
- (d) in accordance with the formula-

$$r_d L + r_e(1 - L).$$

- (2) The **Commission** will determine a mid-point estimate of post-tax **WACC** for each regulatory period-

- (a) as of the first **business day** of the month 7 months prior to the start of the regulatory period;
- (b) in respect of the regulatory period;

Comment [A73]: At the moment the IM does not clearly say that the Part 3 WACC applies for the whole regulatory period. Contrast with clause 2.4.1 which is clear that the Part 2 WACC applies for a disclosure year.

Deleted: each

Comment [A74]: A regulatory period need not be 5 years.

Deleted: a 5 year period

Comment [A75]: Subclause (3) is about RCP1 and can be deleted.

Deleted: subject to subclause 3.5.1(3)

Deleted: ,

Deleted: each

Deleted: each

Deleted: a 5 year period

- (c) no later than 6 months prior to the start of the regulatory period; and
- (d) in accordance with the formula-
- $$r_d(1 - T_c)L + r_e(1 - L).$$

Deleted: subject to subclause (3),

Deleted: each

- (3) In this clause-

L is **leverage**;

r_d is the cost of debt and is estimated in accordance with the formula:

$$r_f + p + d;$$

r_e is the cost of equity and is estimated in accordance with the formula:

$$r_f(1 - T_i) + \theta_e TAMRP;$$

T_c is the average corporate tax rate;

r_f is the risk-free rate;

p is the **debt premium**;

d is the debt issuance costs;

T_i is the average investor tax rate;

θ_e is the equity beta; and

$TAMRP$ is the tax-adjusted market risk premium.

Deleted: <#>The Commission will estimate or determine, as the case may be, the amounts or values- ¶
<#>to which this subclause applies; and ¶
<#>in respect of RCP1, ¶
as soon as practicable after this determination comes into force. ¶

- (4) For the purpose of this clause-

- (a) the fixed WACC parameters comprising average investor tax rate, equity beta, debt issuance costs, and tax-adjusted market risk premium are the values specified in or determined in accordance with clause 3.5.2;
- (b) the risk-free rate must be estimated for the first **business day** of the month 7 months preceding the start of the regulatory period in accordance with clause 3.5.3; and
- (c) the amount of the debt premium must be estimated for the first **business day** of the month 7 months preceding the start of the regulatory period in accordance with clause 3.5.4.

Deleted: RCP1 or any other

Deleted: , as the case may be,

Deleted: RCP1 or any other

Deleted: , as the case may be,

3.5.2 Fixed WACC parameters

- (1) Leverage is 41%.
- (2) 'Average investor tax rate' is the average of the investor tax rates that, as at the date that the estimation is made, will apply to each of the **disclosure years** of the **regulatory period** in question.
- (3) For the purpose of subclause (2), 'investor tax rate' is, for each **disclosure year**, the maximum **prescribed investor rate** that, as at the date that the estimation is made, will apply at the start of the disclosure year to an individual who is-
- (a) resident in New Zealand; and
- (b) an investor in a **multi-rate PIE**.

Deleted: in the 5 year period commencing on the first day

Comment [A76]: Without this change there is only one investor tax rate to take an average of.

Deleted: regulatory period

- (4) 'Equity beta' is 0.58.
 (5) 'Debt issuance costs' are 0.2%.
 (6) 'Tax-adjusted market risk premium' is 7.0%.

3.5.3 Methodology for estimating risk-free rate

The **Commission** will estimate a risk-free rate for each regulatory period-

- (a) as of the first **business day** of the month 7 months prior to the start of the regulatory period;
 (b) in respect of the regulatory period; and
 (c) no later than 6 months prior to the start of the regulatory period,

by-

- (d) obtaining, for notional benchmark New Zealand government New Zealand dollar denominated nominal bonds the wholesale market linearly-interpolated bid yield to maturity, for a residual period to maturity equal to 5 years on each **business day** in the 3 month period of 10 to 8 months prior to the start of the regulatory period;
 (e) calculating the annualised interpolated bid yield to maturity for each **business day**; and
 (f) calculating the unweighted arithmetic average of the daily annualised interpolated bid yields to maturity.

3.5.4 Methodology for estimating debt premium

- (1) Debt premium means the spread between-

- (a) the bid yield to maturity on **vanilla NZ\$ denominated bonds** that-
 (i) are issued by an **EDB** or a **GPB**;
 (ii) are publicly traded;
 (iii) have a **qualifying rating** of grade BBB+; and
 (iv) have a remaining term to maturity of at least 5 years; and
 (b) the contemporaneous interpolated bid yield to maturity of benchmark New Zealand government New Zealand dollar denominated nominal bonds having a remaining term to maturity of 5 years.

- (2) The **Commission** will, in accordance with subclause (3), determine an estimate of an amount for the debt premium-

- (a) for each **regulatory period**; and
 (b) no later than 6 months prior to the start of the regulatory period.

- (3) The amount of the debt premium will be estimated as of the first **business day** of the month 7 months prior to the start of each **regulatory period** by-

- (a) identifying publicly traded **vanilla NZ\$ denominated bonds** that are-
 (i) **investment grade credit rated**; and
 (ii) of a type described in subclause (4);

Comment [A77]: Redundant.

Deleted: , for a 5 year period commencing on the first day of the regulatory period,

Deleted: each

Deleted: a 5 year period

Deleted: subject to clause 3.5.1(3),

Deleted: each

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Deleted: subject to clause 3.5.1(3),

Deleted: each

Comment [A78]: Redundant. There may be other examples of this in the determination.

Deleted: the paragraphs of

- (b) in respect of each bond identified in accordance with paragraph (a)-
 - (i) obtaining its wholesale market annualised bid yield to maturity;
 - (ii) calculating by linear interpolation with respect to maturity, the contemporaneous wholesale market annualised bid yield to maturity for a notional benchmark New Zealand government New Zealand dollar denominated nominal bond with the same remaining term to maturity; and
 - (iii) calculating its contemporaneous interpolated bid to bid spread over notional benchmark New Zealand government New Zealand dollar denominated nominal bonds with the same remaining term to maturity, by deducting the yield calculated in accordance with sub-paragraph (ii) from the yield obtained in accordance with sub-paragraph (i),

for each **business day** in the 3 month period of 10 to 8 months prior to the start of the **regulatory period**;

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- (c) calculating, for each bond identified in accordance with paragraph (a), the unweighted arithmetic average of the daily spreads identified in accordance with paragraph (b)(iii); and
- (d) subject to subclause (4), estimating, by taking account of the average spreads identified in accordance with paragraph (c) and having regard to the debt premium estimated from applying the **Nelson-Siegel-Svensson approach**, the average spread that would reasonably be expected to apply to a **vanilla NZ\$ denominated bond** that-
 - (i) is issued by an **EDB** or a **GPB**;
 - (ii) is publicly traded;
 - (iii) has a **qualifying rating** of grade BBB+; and
 - (iv) has a remaining term to maturity of at least 5 years.

Comment [A79]: Query: Transpower is required to "take into account" the average spreads but only "have regard to" the NSS approach. Is that difference intentional? What exactly does "have regard to" require Transpower to do?

- (4) For the purpose of subclause (3)(d), the **Commission** will have regard, subject to subclause (5), to the spreads observed on the following types of **vanilla NZ\$ denominated bonds** issued by a **qualifying issuer**:

- (a) those that-
 - (i) have a **qualifying rating** of grade BBB+; and
 - (ii) are issued by an **EDB** or a **GPB**;
- (b) those that-
 - (i) have a **qualifying rating** of grade BBB+; and
 - (ii) are issued by an entity other than an **EDB** or a **GPB**;
- (c) those that-
 - (i) have a **qualifying rating** of a grade different to BBB+; and
 - (ii) are issued by an **EDB** or a **GPB**; and
- (d) those that-

- (i) have a **qualifying rating** of a grade different to BBB+; and
- (ii) are issued by an entity, other than an **EDB** or a **GPB**.

(5) For the purpose of subclause (4)-

- (a) progressively less regard will ordinarily be given to the spreads observed on the bond types in accordance with the order in which the bond types are described in subclause (4);
- (b) the spread on any bond of the type described in subclause (4) that has a remaining term to maturity of less than 5 years will ordinarily be considered to be the minimum spread that would reasonably be expected to apply on an equivalently credit-rated bond issued by the same entity with a remaining term to maturity of 5 years; and
- (c) the **Commission** will adjust spreads observed on bonds described under subclauses (4)(b) to (4)(d) to approximate the spread that is likely to have been observed had the bonds in question been of the type described in subclause (4)(a).

Deleted: er

3.5.5 Methodology for estimating 67th percentile of the WACC

- (1) The **Commission** will determine a 67th percentile estimate of vanilla WACC and post-tax WACC.
- (a) for each **regulatory period**; and
 - (b) no later than 6 months prior to the start of the **regulatory period**.

- (2) For the purpose of subclause (1), the 67th percentile must be determined in accordance with the formula-

mid-point estimate of WACC + 0.440 × *standard error*,

where the **standard error** is 0.0113.

3.5.6 Publication of estimates

The **Commission** will publish all determinations and estimates that it is required to make by this subpart-

- (a) on its website; and
- (b) no later than 1 month after having made them.

3.5.7 Use of published estimates of WACC

For the purpose of setting the **price path**, the 67th percentile estimates of WACC published in accordance with clause 3.5.6 most recently prior to the start of the **regulatory period** in question must be applied in respect of each **disclosure year** of the **regulatory period**.

3.5.8 Methodology for estimating term credit spread differential

- (1) This clause applies to the determination of the amount of any **term credit spread differential** in respect of a **qualifying debt** for the purpose of determining a **term credit spread differential allowance** in an **IPP**.

Deleted: vanilla

Comment [A80]: Subclause (2) said substantially the same thing so we have amalgamated it. This is consistent with clause 2.4.5(4).

Deleted: each

Moved (insertion) [2]

Deleted: <#>The Commission will estimate a 67th percentile estimate of post-tax WACC-¶
<#>for each **regulatory period**; and ¶
<#>no later than 6 months prior to the start of each **regulatory period**. ¶

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Deleted: or (2)-

Moved up [2]: <#>the 67th percentile must be determined in accordance with the formula-

Deleted: <#>¶

Deleted: of the **mid-point estimate of WACC**

Deleted: ; and

Comment [A81]: Redundant

Deleted: <#>the relevant **mid-point estimate of WACC** in accordance with clause 5.5.1(1) and (2) must be treated as the 50th percentile.

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Comment [A82]: Mid-point estimates are also published.

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- (2) The **Commission** will only determine a **term credit spread differential allowance** if **Transpower's** debt portfolio, as at the date of its most recently published audited financial statements, has a weighted average original tenor greater than 5 years.
- (3) Term credit spread differential is the amount determined in accordance with the formula-

$$(A \div B) \times C \times D,$$

where-

- (a) 'A' is the sum of the-
- term credit spread difference**; and
 - debt issuance cost re-adjustment;
- (b) 'B' is the book value of **Transpower's** total interest-bearing debt as at the **balance date of Transpower's** financial statements audited and published most recently before the **IPP** is made;
- (c) 'C' is **leverage**; and
- (d) 'D' is the average of-
- the sum of **opening RAB values**; and
 - the sum of **closing RAB values**.
- (4) For the purpose of subclause (3)(a)(ii), the debt issuance cost re-adjustment is determined in accordance with the formula-

$$(0.01 \div \text{original tenor of the qualifying debt} - 0.002) \times \text{book value in New Zealand dollars of the qualifying debt at its date of issue},$$

which amount, for the avoidance of doubt, will be a negative number.

SUBPART 6 Incremental rolling incentive scheme

SECTION 1 Annual IRIS incentive amounts for operating expenditure

3.6.1 Calculation of annual IRIS incentives for operating expenditure as recoverable costs

Transpower must calculate an **opex incentive amount** for each **disclosure year** of each **regulatory period** **commencing on or after 1 April 2020**.

3.6.2 How to calculate opex incentive amounts

- (1) The 'opex incentive amount' for a **disclosure year of a regulatory period** (referred to in **this clause 3.6.2 as disclosure year A and regulatory period B**) is an amount equal to the sum of-
- all **amounts carried forward** into **disclosure year A** from a **disclosure year of a regulatory period preceding regulatory period B**; and
 - where an **adjustment to the opex incentive** is applicable under clause 3.6.4(1) **for regulatory period B**-
 - the amount calculated in accordance with the following formula-

Comment [A83]: The previous wording did not read properly.

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Comment [A84]: Previous subclause (2) is unnecessary.

Deleted: <#>Transpower shall not calculate an **opex incentive amount** for any **disclosure year** commencing prior to 1 April 2020.

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Comment [A85]: Designating the relevant disclosure year and regulatory period in this way makes this clause easier to follow.

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$$\left(\frac{\text{Adjustment to the opex incentive}}{l - 1} \right) \times (1 + r)^{y+0.5}$$

where—

- l is the number of **disclosure years** in **regulatory period B**;
 r is the **cost of debt** applying to the **IPP**; and
 y is the number of **disclosure years of regulatory period B** preceding **disclosure year A**; or

(ii) where subclause (2) applies, nil.

(2) This subclause applies when—

- (a) **disclosure year A** is the first **disclosure year** of **regulatory period B**; or
 (b) **regulatory period B** is a **regulatory period** commencing prior to 1 April 2020.

3.6.3 How to calculate the amount carried forward to subsequent disclosure years

- (1) An ‘amount carried forward’ must be calculated for each **disclosure year that commences on or after 1 July 2015 (referred to in this clause 3.6.3 as disclosure year A)**.
 (2) **If disclosure year A is the first disclosure year of a regulatory period, the ‘amount carried forward’ for disclosure year A** is calculated in accordance with the formula—

$$\text{forecast opex}_t - \text{actual opex}_t$$

where—

t means **disclosure year A**;

- (3) **If disclosure year A is not the first or last disclosure year of a regulatory period, the ‘amount carried forward’ for disclosure year A** is calculated in accordance with the formula—

$$(\text{forecast opex}_t - \text{actual opex}_t) - (\text{forecast opex}_{t-1} - \text{actual opex}_{t-1})$$

where—

t means **disclosure year A**; and

$t-1$ means the **disclosure year immediately preceding disclosure year A**;

- (4) **If disclosure year A is the last disclosure year of a regulatory period, the ‘amount carried forward’ for disclosure year A** is nil.
 (5) Each **amount carried forward** is carried forward from **disclosure year A** into each of the **immediately** subsequent 5 **disclosure years**.
 (6) **Subject to clause 3.6.5, ‘forecast opex’ for a disclosure year is the amount of forecast operating expenditure specified for the disclosure year in the IPP for the purpose of calculating an opex incentive amount.**
 (7) ‘Actual opex’ **for a disclosure year** is the amount of **operating costs** allocated to the **disclosure year** calculated in accordance with Part 2.

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Comment [A86]: Query: “Cost of debt” is defined by reference to clause 2.4.1(4), which is the information disclosure cost of debt and potentially changes each disclosure year. Should this reference be to the cost of debt calculated under clause 3.5.1(3) instead?

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Comment [A87]: Previous subclause ...

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Comment [A88]: Drafting observation ...

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Comment [A89]: The amount is ...

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Comment [A90]: Redundant.

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3.6.4 How to calculate the adjustment to the opex incentive in the second year of a regulatory period

- (1) An **adjustment to the opex incentive** must be calculated for the second **disclosure year** of **each regulatory period commencing on or after 1 April 2020** (referred to in this clause **3.6.4 as regulatory period A**) in accordance with the formula—

base year adjustment term + baseline adjustment term.

- (2) The ‘base year adjustment term’ is calculated in accordance with the formula—

$$-\left(\frac{(\text{forecast opex}_{t-1} - \text{actual opex}_{t-1}) - (\text{forecast opex}_{t-2} - \text{actual opex}_{t-2})}{(1 + \text{WACC})^4}\right)$$

where—

WACC means the **WACC applied to set the price path**;

$t-1$ means the **last disclosure year of the regulatory period** immediately prior to **regulatory period A**; and

$t-2$ means the **penultimate disclosure year of the regulatory period** immediately prior to **regulatory period A**.

- (3) The ‘baseline adjustment term’ is calculated in accordance with the formula—

non-recurrent differences in penultimate year

×

$$((1-(1+\text{WACC})^{-6})/\text{WACC})$$

×

$$(1+\text{WACC})^2$$

where—

non-recurrent differences in penultimate year means the amount **determined** in accordance with subclause (4); and

WACC means the **WACC applied to set the price path**.

- (4) ‘*non-recurrent differences in penultimate year*’ is an amount determined by the **Commission**, having regard to the views of interested persons, attributable to the impact of non-recurrent factors **that caused** differences between **forecast opex** and **actual opex** in the penultimate **disclosure year** of the **regulatory period immediately prior to regulatory period A**, and notified to **Transpower**.

SECTION 2 Price-quality path amendments and other events

3.6.5 Calculating incentive adjustments for IPP amendments and other events

- (1) Where **the IPP** is amended following—

- (a) a **catastrophic event**;
- (b) a **change event**;

Comment [A91]: The adjustment is irrelevant for any earlier regulatory period because the IRIS incentive does not need to be calculated for it under clause 3.6.1.

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Comment [A92]: For consistency with clause 3.5.7.

Deleted: as determined by the Commission and applicable to Transpower's current IPP

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Comment [A93]: There is no calculation in subclause (4).

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Comment [A94]: Query: Should the Commission be required to publish this determination rather than just notify it to Transpower?

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- (c) an **error event**; or
- (d) provision of false or misleading information under clause 3.7.4(4), the **forecast opex** required to be used by **Transpower** to calculate the **amount carried forward** for the **disclosure year** in which the event occurred and each subsequent **disclosure year** prior to the effective date of the amendment to the **IPP**, is the amount specified by the **Commission** in the amended **IPP**.

(2) Where an alteration to Part 2 or **ID determination** requirements affecting the quantification of **operating costs** occurs in a **disclosure year** and—

- (a) the **Commission** considers; or
- (b) **Transpower** satisfies the **Commission** upon application, that the alteration has, or is likely to have, a material effect on the calculation of the **opex incentive amount** that would otherwise have been calculated by **Transpower**, then the **forecast opex** required to be used by **Transpower** to calculate the **amount carried forward** for that **disclosure year** and each subsequent **disclosure year** of the **regulatory period** may be determined by the **Commission**, and notified to **Transpower**, in order to preserve, to the extent appropriate—
 - (c) the correct outcomes for expenditure efficiencies achieved before the event; and
 - (d) the relevant incentive properties after the event.

SECTION 3 Transitional provisions

3.6.6 **Annual incremental changes and incremental adjustment term** to be taken into account as a recoverable cost

- (1) Each **incremental change** and **incremental adjustment term** is carried forward from the **disclosure year** in respect of which it is determined into each of the **immediately** subsequent 5 **disclosure years** by applying the **inflation rate**.
- (2) In each of the **disclosure years** of **RCP2** or a **subsequent regulatory period** into which an amount has been carried pursuant to subclause (1), a net balance must be determined by addition of-
 - (a) any **incremental changes** carried forward into that **disclosure year**; and
 - (b) any **incremental adjustment term** carried into that **disclosure year**.

SUBPART 7 Reconsideration of an individual price-quality path

3.7.1 **Catastrophic event**

Catastrophic event means an event **occurring in the current regulatory period**-

- (a) **that was** beyond the reasonable control of **Transpower**;
- (b) that could not have been reasonably foreseen by **Transpower** at the time the **IPP** was made; and
- (c) in respect of which-

Comment [A95]: Redundant.

Deleted: allocated to **electricity transmission services**

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Comment [A96]: Query: Should the Commission be required to publish this determination rather than just notify it to Transpower?

Comment [A97]: Redundant (only relevant during RCP1 and the first year of RCP2).

Deleted: ~~Calculation of annual incremental changes and adjustment term~~

Deleted: ~~The incremental change for the opening year of RCP1 is the difference between allowed controllable opex and actual controllable opex. The incremental change for a disclosure year of RCP1 other than the opening year or final disclosure year must be determined in accordance with the formula- (allowed controllable opex_t - actual controllable opex_{t-1}) - (allowed controllable opex_{t+1} - actual controllable opex_t), where t means the disclosure year in question; and~~

Deleted: Determination of amount

Comment [A98]: The amounts are actually carried forward.

Comment [A99]: Redundant.

Deleted: determined in accordance with clause 3.6.6

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Comment [A100]: Redundant.

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Comment [A101]: Redundant (only relevant during RCP1).

Deleted: ~~Calculating gains and losses after a catastrophic event~~

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Comment [A102]: To link the event to the current regulatory period and IPP.

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- (i) action required to rectify its adverse consequences cannot be delayed until a future **regulatory period** without the **grid outputs** associated with the **revenue-linked grid output measures** being outside the range specified by the relevant **cap** and **collar** in the remaining **disclosure years** of the **regulatory period**;
- (ii) remediation requires either or both of **capital expenditure** or **operating expenditure** during the **regulatory period**; **and**
- (iii) the cost of remediation net of any insurance or compensatory entitlements **has had or will** have an impact on the **price path** of an amount at least equivalent to 1% of the aggregated **forecast MARs** for the **disclosure years** of the **regulatory period** in which the cost was or will be incurred.

Comment [A103]: Clause 3.7.4(3) says the IPP can be reconsidered to a limited extent if the full costs of remediating a catastrophic event are covered in the IPP.

Deleted: <#>the full costs of remediation are not provided for in that **IPP determination**; and

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Comment [A104]: "Would" implies that the impact has not actually occurred.

Comment [A105]: Redundant.

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Deleted: price path over the **disclosure years** of the **IPP** remaining on and after the first date at which a remediation co...

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Comment [A106]: Made consistent...

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Comment [A107]: If the Commissio...

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Comment [A108]: Made consistent...

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Comment [A109]: Errors relating to...

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3.7.2 Change event

Change event means-

- (a) change in a; or
- (b) a new,

legislative or regulatory requirement applying to **Transpower that**;

- (c) **takes effect** during the current **regulatory period**;
- (d) is not explicitly or implicitly provided for in the **IPP**; and
- (e) **the reasonable cost of responding to which has had or will** have an impact on the **price path** of an amount at least equivalent to 1% of the aggregated **forecast MARs** for the **disclosure years** of the **regulatory period** in which cost **was** or will be incurred.

3.7.3 Error event

(1) 'Error event' means, subject to subclause (2), an unintended circumstance identified by the **Commission** where the **IPP** was determined or amended based on an error, including where:

- (a) incorrect data was used in setting the **price path** or a **quality standard**; or
- (b) data was incorrectly applied in setting the **price path** or a **quality standard**,

(2) For the purpose of subclause (1), an error relating to-

- (a) the **price path** will not constitute an **error event** unless the error has **had or will have** an impact on the **price path** of an amount **at least** equivalent to 1% of the aggregate **forecast MARs** for the affected **disclosure years** of the **regulatory period**; and
- (b) a **quality standard** is to the value of a metric by which such **quality standard** is specified in the **IPP**, but not to the metric itself.

3.7.4 When the IPP may and will be reconsidered

- (1) The IPP may be reconsidered where-
 - (a) the Commission considers; or
 - (b) Transpower satisfies the Commission, upon application,
 that subclause (2), (4), (5) or (6) applies.
- (2) This subclause applies if a catastrophic event, change event or error event has occurred.
- (3) If a catastrophic event has occurred and the cost of remediation of the adverse consequences of the catastrophic event are fully covered by-
 - (a) the IPP (e.g. through an operating expenditure allowance for self-insurance); or
 - (b) commercial insurance held by Transpower,
 the Commission may only reconsider the grid output targets, caps, collars, and grid output incentive rates associated with revenue-linked grid output measures.
- (4) This subclause applies if-
 - (a) false or misleading information relating to the making or amending of the IPP has been knowingly-
 - (i) provided by Transpower or any of its agents to the Commission; or
 - (ii) disclosed pursuant to an ID determination or information disclosure requirements under Subpart 3 of Part 4A of the Act, as continued in force by s 54W of the Act; and
 - (b) the Commission relied on that information in making or amending the IPP.
- (5) This subclause applies if the Commission applies a close alternative approach in accordance with clause 1.1.5(1) that has a non-equivalent effect on the IPP.
- (6) This subclause applies if a requirement in a determination is considered by the Commission to be unworkable and the application of s 52Q of the Act results in a non-equivalent effect on the IPP.
- (7) In each disclosure year of a regulatory period other than the last disclosure year, the Commission will reconsider the IPP in respect of the remaining disclosure years of the regulatory period to take account of-
 - (a) the revenue impact of any major capex approved by the Commission;
 - (b) the revenue impact of any base capex approved by the Commission for a listed project; and
 - (c) an EV adjustment,
 on forecast MAR.
- (8) For the purpose of subclause (7), 'EV adjustment' has the meaning as defined in the IPP determination.

Comment [A110]: One of the subclauses relates to a mandatory reconsideration.

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Comment [A111]: This drafting is able to be simplified because subclause (a) is not in fact subject to subclause (3).

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Comment [A112]: Made consistent

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Comment [A113]: Reconsideration

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Comment [A118]: Redundant.

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3.7.5 Amending the IPP after reconsideration

(1) Where, after reconsidering the IPP under clause 3.7.4, the Commission determines that it should be amended, the Commission may amend either or both of the price path or quality standards, subject to clause 3.7.4(3) and subclauses (2) and (3).

(2) The Commission must not amend-

- (a) the price path more than is reasonably necessary to take account of the change in Transpower's costs net of any insurance or compensatory entitlements; and
- (b) a quality standard more than is reasonably necessary to take account of any anticipated change in the quality of electricity transmission services,

arising from-

- (c) the catastrophic event;
- (d) the change event;
- (e) the error event;
- (f) the provision of false or misleading information;
- (g) the application of a close alternative approach in accordance with clause 1.1.5(1);
- (h) the application of s 52Q of the Act to an unworkable requirement in a determination; or
- (i) the amendment required to forecast MAR to account for-
 - (i) the revenue impact of any major capex approved by the Commission;
 - (ii) the revenue impact of any base capex approved by the Commission for a listed project; or
 - (iii) an EV adjustment,

as the case may be.

(3) Where the Commission's reconsideration of the IPP was triggered by a catastrophic event, in determining the extent of the amendment required, the Commission will consider the extent to which Transpower has demonstrated that it has reviewed its capital expenditure and operating expenditure plans for the remainder of the regulatory period and made such substitutions as is possible without adversely affecting its ability to meet the grid output targets associated with revenue-linked grid output measures.

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Comment [A119]: There may be other bases for IPP amendments that are not subject to the restrictions in clause 3.7.5.

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Comment [A120]: The change in quality may not be inevitable.

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Comment [A121]: See comment above on clause 3.7.4(4).

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Comment [A122]: Adding these two subclauses allows subclauses (3) and (4) to be deleted.

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Deleted: <#>The Commission will not amend the price path for the application of a next closest alternative approach more than is necessary to adopt the effect of that next closest alternative approach in the price-quality path.¶
<#>The Commission will not amend the price-quality path for the application of s 52Q in respect of an unworkable requirement in a s 52P determination more than is necessary to adopt the effect of that s 52Q amendment in the price-quality path.¶

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SCHEDULE A STANDARD PHYSICAL ASSET LIVES

Standard Physical Asset Lives for Transpower

ASSET DESCRIPTION	STANDARD PHYSICAL ASSET LIFE (YEARS)
Substations	55
Transformers	55
Oil Containment	45
Switchgear	45
Reactive Power Plant:	
220/110/66 kV Two Zone Bus Protection	15
22/11 kV Neutral Earthing Resistor	45
Transmission Lines	55