Project no. 14.11/14120

Public version

Transpower Individual Price-Quality Path Determination

NZCC XX

The Commission: S Begg
P Duignan
Dr S Gale

Summary of the determination: Pursuant to Part 4 of the Commerce Act 1986, the Commerce Commission has determined the individual price-quality path applicable to electricity lines services supplied by Transpower New Zealand Limited for the regulatory period 1 April 2015 to 31 March 2020.

Date of determination: XXX 2014

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THIS DRAFT DETERMINATION IS FOR CONSULTATION PURPOSES ONLY

Regulation Branch, Commerce Commission

Wellington, NEW ZEALAND

XXX 2014

Determination version history		
This determination supersedes the *Commerce Act (Transpower Individual Price-Quality Path) Determination 2010* as it applies to Transpower.		
Determination date	**Decision number**	**Determination name**
XXX 2014	NZCC XXX	Transpower individual price-quality path determination

CONTENTS

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

Part 1: General provisions

1. Title

1.1 This determination is the Transpower individual price-quality path determination.

2. Commencement

2.1 This determination takes effect on 1 April 2015.

3. Application

3.1 This determination applies to **Transpower** in relation to the supply of **electricity lines services** for the **regulatory period** 1 April 2015 to 31 March 2020.

4. Interpretation

4.1 Unless the context otherwise requires—

4.1.1 words appearing in bold type (except for headings) in this determination are defined terms;

4.1.2 terms used in this determination that are defined in the **IMs**, but not in this determination have the meaning given in the **IMs**;

4.1.3 terms used in this determination that are defined in the Commerce Act 1986, but not in this determination, or in the **IMs**, have the meaning given in the Commerce Act 1986;

4.1.4 financial items must be measured and disclosed in accordance with **GAAP**, unless otherwise required by this determination or the **IMs**;

4.1.5 non-financial items must be measured and disclosed in accordance with standard industry practice unless otherwise required in this determination, or the **IMs**;

4.1.6 an obligation to do something is deemed to include an obligation to cause that thing to be done; and

4.1.7 a word which denotes the singular also denotes the plural and vice versa.

4.2 If there is any inconsistency between the main body of this determination and any attachment or schedule to this determination, the main body of this determination prevails.

5. Individual price-quality path

5.1 **Transpower** must comply with the individual price-quality path, which consists of :

5.1.1 the price-path in Part 3; and

5.1.2 the quality standards in Part 4.

6. Applicable input methodologies

6.1 **Transpower** must apply the requirements set out in the following parts of the **IMs** where applicable when complying with this determination:

6.1.1 Subpart 1 of Part 3 of the **Transpower IM** – specification of price;

6.1.2 Subpart 2 of Part 3 of the **Transpower IM** – cost allocation;

6.1.3 Subpart 3 of Part 3 of the **Transpower IM** – asset valuation;

6.1.4 Subpart 4 of Part 3 of the **Transpower IM** – treatment of taxation;

6.1.5 Subpart 5 of Part 3 of the **Transpower IM** – cost of capital;

6.1.6 Subpart 6 of Part 3 of the **Transpower IM** – incremental rolling incentive scheme;

6.1.7 Subpart 7 of Part 3 of the **Transpower IM** – reconsideration of the price-quality path; and

6.1.8 Part 3 of the **Capex IM** – capital expenditure.

Part 2: Defined terms

7. In this determination—

A

annual regulatory report means the document containing **Transpower's annual compliance statement** and associated information in fulfilment of its reporting requirements under this determination

auditor means a person who-

(a) is qualified for appointment as auditor of a company under the Companies Act 1993;

(b) has no relationship with, or interest in, **Transpower** that is likely to involve a conflict of interest;

(c) has not assisted with the compilation of either **Transpower's forecast MAR** calculation or the **annual compliance statement**, or provided advice or opinions (other than in relation to **independent assurance reports**) on the methodologies or processes used in compiling either **Transpower's forecast MAR** calculation or the **annual compliance statement**;

(d) is not associated with or directed by any person who has provided any such assistance, advice or opinion

B

base capex adjustments mean the monetary amounts of after-tax economic gain or loss calculated in respect of **base capex** comprising:

(a) the **base capex expenditure adjustment**, calculated in accordance with Schedule B, clause B1 of the **Capex IM**; and

(b) the **policies and processes adjustment**, calculated in accordance with Schedule B, clause B2 of the **Capex IM**

C

Capex IM means the *Transpower Capital Expenditure Input Methodology Determination* [2012] NZCC 2 (as amended)

category means one of:

(a) high priority;

(b) important;

(c) standard;

(d) generator; or

(e) N-security;

and the **points of connection** within each of these **categories** are listed in Schedule F

customer means any generator, distribution business, consumer, or other entity in New Zealand that is connected, or applies to be connected, to the **grid**

D

directors' certificate means a certificate signed by at least two directors of **Transpower** in the form specified in Schedule K or Schedule L, as applicable

E

EV account means a memorandum account maintained by **Transpower** to record each **EV account entry** not yet returned to or recovered from **Transpower's HVAC customers** and **HVDC customers**, and to record interest calculated on the balance of the **EV account** for each **disclosure year** using the **WACC**

EV account entry means, for any **disclosure year** of the **regulatory period** or for the **RCP1 disclosure year** ending 30 June 2015, an entry into either of the **HVAC** or **HVDC EV accounts** to record:

(a) an after-tax **ex-post economic gain or loss**;

(b) an after-tax **gain or loss on capital expenditure commitments**;

(c) an after-tax economic gain or loss calculated for a **grid output adjustment**, **major capex adjustments**, or **base capex adjustments**; or

(d) an after-tax economic gain or loss calculated in accordance with clauses 23.1.3(b), (c), (e) and (f)

EV adjustment means, in relation to a **disclosure year**, an input to the **forecast MAR** calculated in accordance with clause 24.1, for the purpose of returning to or recovering from **HVAC customers** or **HVDC customers** a portion of the **EV account** balance applying to those **customers**

ex-post economic gain or loss means, for any **disclosure year**, the difference (expressed as a positive or negative amount) between the capital charge and the net operating profit/(loss) after tax for that **disclosure year**, as calculated in accordance with clause 20.1 and Schedule E

F

forecast MAR means, for each **relevant pricing year** in the **regulatory period**, the forecast maximum allowable revenue for a **disclosure year** as determined by the **Commission**, and as amended in accordance with clause 3.7.5 of the **Transpower IM** and recorded in the list of **forecast MARs** in Schedule A

forecast MAR calculation model means the software and procedures that **Transpower** uses to carry out the calculations specified in clause 9.1

G

gain or loss on capital expenditure commitments means a gain or loss required under **GAAP** to be recognised in profit or loss in **Transpower's** Statement of Comprehensive Income in respect of:

(a) foreign currency capital expenditure commitments and associated designated hedges; and

(b) commodity hedge instruments

H

HVAC means high voltage alternating current

HVAC customer means, in relation to a **disclosure year**, any **customer** from whom **Transpower** receives **HVAC transmission revenue** in the **relevant pricing year**

HVAC revenue means, in relation to a **disclosure year**, the **HVAC transmission revenue** for the **relevant pricing year** less **pass-through costs** and **recoverable costs** passed on to any **HVAC customer**

HVAC transmission revenue means revenue from **prices** (net of rebates) received by **Transpower** from **HVAC customers** in respect of the use by **Transpower** of **Transpower's HVAC** transmission system for the purpose of providing **electricity lines services** to **customers**, but excludes any such revenue:

(a) that compensates for the return on or of assets covered under a **new investment contract**; or

(b) associated with the provision of **unregulated services**; or

(c) relating to services provided as **system operator**

HVDC means high voltage direct current

HVDC customer means, in relation to a **disclosure year**, any **customer** from whom **Transpower** receives **HVDC transmission revenue** in the **relevant pricing year**

HVDC link has the same meaning as defined in the **code**

HVDC pole means an **HVDC system** circuit between Benmore and Haywards comprising the converter stations at Benmore and Haywards and the **HVDC** transmission circuit between them, carried on **HVDC** overhead line and undersea cable, connecting the converter stations

HVDC revenue means, in relation to a **disclosure year**, **HVDC transmission revenue** for the **relevant pricing year** less **pass-through costs** and **recoverable costs** passed on to **HVDC customers**

HVDC transmission revenue means revenue from **prices** (net of rebates) received by **Transpower** from **HVDC customers** in respect of the use by **Transpower** of **Transpower's HVDC** transmission system for the purpose of providing **electricity lines services** to **customers**, but excludes any such revenue:

(a) that compensates for the return on or of assets covered under a **new investment contract**; or

(b) associated with the provision of **unregulated services**; or

(c) relating to services provided as **system operator**

I

IMs means the **Transpower IM** and the **Capex IM** taken together

interruption means the cessation of conveyance of electricity from **grid** assets owned by **Transpower** to the assets owned or operated by a **customer** at a **point of connection** to the **grid**

independent assurance report means a report issued by an **auditor** on an **annual compliance statement** in accordance with clause 18.2.4

L

listed project means a **base capex project** or **base capex programme** in Schedule J:

(a) that is reasonably required of **Transpower**; and

(b) that is one whose associated assets are likely to be **commissioned** during the **regulatory period**; and

(c) for which a commencement date cannot be forecast with an appropriate degree of specificity by comparison with other proposed **projects** or **programmes**;

(d) in respect of which the **Commission** considers that its required **capital expenditure** will be greater than $20 million; and

(e) that is not otherwise provided for in the **base capex allowance**

M

major capex adjustments mean the monetary amounts of after-tax economic gain or loss calculated in respect of **major capex** comprising:

(a) the **major capex efficiency adjustment**, calculated in accordance with Schedule B, clause B7 of the **Capex IM**;

(b) the **major capex project output adjustment**, calculated in accordance with Schedule B, clause B5 of the **Capex IM**;

(c) the **major capex overspend adjustment**, calculated in accordance with Schedule B, clause B4 of the **Capex IM**; and

(d) the **major capex sunk costs adjustment**, calculated in accordance with Schedule B, clause B6 of the **Capex IM**

minor capital expenditure has the meaning set out in the *Commerce Act (Transpower Individual Price-Quality Path) Determination 2010*, Decision No.714, as amended and consolidated 30 October 2013

momentary interruption means an **interruption** for a period of less than one minute

O

opening EV account balances means the balances recorded in the **EV accounts** as at 30 June 2015, including any interest accrued up to that time on those balances

opex allowance means, for each **disclosure year**, the level of **operating expenditure** approved by the **Commission** for the purposes of calculating the **forecast MAR** or the calculation of the **ex-post economic gain or loss**, as applicable

other regulated income means income associated with the supply of **electricity lines services** supplied by **Transpower,** excluding services supplied by the **system operator** and **investment contracts,** other than:

(a) through prices; or

(b) investment-related income

outage has the meaning set out in clause 12.130 of the **code**, as amended from time to time, other than as specified in sub clauses 12.130(2)(c) and 12.130(2)(d) of the **code,** and excludes those that are:

(a) of less than one minute duration;

(b) at the request of, or caused by, a **customer**; and

(c) due to correct operation of **Transpower's** assets caused by events in the **customer**'s assets

P

planned interruption means any **interruption** for a period of one minute or longer in respect of which not less than 24 hours' notice was given, either to the public or to electricity **customers** affected by the **interruption**

planned outage means an **outage**, other than an **unplanned outage**

point of connection has the same meaning as defined in the **code**

pricing year means a 12 month period ending on 31 March

R

RCP1 means the regulatory period prior to **RCP2**, comprising the period 1 April 2011 to 31 March 2015

regulatory period, or **RCP2**, means the period 1 April 2015 to 30 March 2020

relevant pricing year, in relation to a **disclosure year**, means the **pricing year** commencing on 1 April immediately before the start of that **disclosure year**

restoration, to a **customer**, means:

(a) for generators:

(i) when the generator circuit breaker is closed, or

(ii) the generator is notified that **Transpower** equipment has been returned to service and is available for generation to be reconnected, or

(iii) operational control for connecting the **Transpower** assets is returned to the generator; and

(b) for **customers** other than generators:

(i) when the first feeder is closed, if feeder circuit breakers have been opened

(ii) when the supply bus is relivened, if feeder circuit breakers have remained closed after the **interruption**

(iii) 75% of the load is returned to service by way of a backfeed within the **customer**'s system or by generators; or

(iv) when **Transpower** has readied all its equipment and has made reasonable efforts to advise the **customer** that the equipment can be returned to service

and 'restored' shall be construed accordingly.

T

TPM means the transmission pricing methodology specified in the **code**

transmission revenue is the sum of amounts received by **Transpower** in the **pricing year** for:

(a) **HVAC transmission revenue**;

(b) **HVDC transmission revenue**;

(c) recovered **pass-through costs**; and

(d) recovered **recoverable costs**

Transpower IM means the *Transpower Input Methodologies Determination* [2012] NZCC 17 (as amended)

U

unplanned interruption means any **interruption** for a period of one minute or longer in respect of which less than 24 hours' notice, or no notice, was given, either to the public or to **customers** affected by the **interruption**

unplanned outage has the meaning specified in clause 10.2.1 of the Outage Protocol incorporated by reference under clause 12.150 of the **code**

unregulated services means any good or service that is not regulated under Part 4 of the **Act**

W

WACC means, for the purpose of calculating a **forecast MAR** or a **ex-post economic gain or loss**, the weighted average cost of capital for a **disclosure year** that is published by the **Commission** in accordance with the **Transpower IM**.

Part 3: Price path

8. Maximum revenues

8.1 The maximum revenue that **Transpower** may recover for each **pricing year** in the **regulatory period**, net of the sum of **pass-through costs** and the sum of **recoverable costs,** is the **forecast MAR**.

8.2 The forecast **HVAC revenue** and forecast **HVDC revenue** that **Transpower** uses for setting charges under the **TPM** for the **pricing year** must not, in aggregate, exceed the **forecast MAR**

8.3 For the purposes of **Transpower** setting charges under the **TPM** for the **pricing year**:

8.3.1 the 'AC revenue' as defined in Schedule 12.4 of the **code,** and which is further described in Appendix A of Schedule 12.4 of the **code,** does not exceed the sum of:

(a) the forecast **HVAC revenue**; plus

(b) the forecast **pass-through costs** for the **pricing year** to be recovered from **HVAC customers**; plus

(c) the adjustment amounts in respect of prior **pricing year** forecast **pass-through costs** for **HVAC customers**; plus

(d) the forecast **recoverable costs** for the **pricing year** to be recovered from **HVAC customers**; plus

(e) the adjustment amounts in respect of prior **pricing year** forecast **recoverable costs** for **HVAC customers**; and

8.3.2 the 'HVDC revenue' as defined in Schedule 12.4 of the **code,** and which is further described in Appendix A of Schedule 12.4 of the **code,** does not exceed the sum of:

(a) the forecast **HVDC revenue**; plus

(b) the forecast **pass-through costs** for the **pricing year** to be recovered from **HVDC customers**; plus

(c) the adjustment amounts in respect of prior **pricing year** forecast **pass-through costs** for **HVDC customers**; plus

(d) the forecast **recoverable costs** for the **pricing year** to be recovered from **HVDC customers**; plus

(e) the adjustment amounts in respect of prior **pricing year** forecast **recoverable costs** for **HVDC customers**.

9. Transpower to provide proposed annual update of forecast MAR

9.1 Not later than the last **working day** in September of each **pricing year, Transpower** must provide to the **Commission** a proposed update of a **forecast MAR** based on the calculations required in clause 22.1 and Schedule D and must include any supporting information.

10. Forecast MAR

10.1 The **forecast MAR** for each **pricing year** in the **regulatory period**, subject to any reconsideration and amendments determined by the **Commission** by 30 November in each year, is specified in Schedule A.

11. Implementation of incremental rolling incentive scheme

11.1 For the purpose of calculating the incremental change for a **disclosure year** in accordance with clause 3.6.1 of the **Transpower IM**:

11.1.1 **allowed controllable opex** means the **opex allowance** for the **disclosure year**, as adjusted for the disparity between the **forecast CPI** and the **CPI**; and

11.1.2 **actual controllable opex** means **operating expenditure** for the **disclosure year**.

12. Process for reflecting listed project capital expenditure in base capex allowance

12.1 **Transpower** may submit, at any time during **RCP2**, an application for approval of **capital expenditure** associated with a **listed project** identified in Schedule J to be included in the **base capex allowance** that applies for the **disclosure years** that follow the **disclosure year** of application.

12.2 **Transpower's** application under clause 12.1 must include:

12.2.1 a description of the reasons for undertaking the **listed project**, supported by relevant technical information, including evidence of the current and future need for the applicable assets by reference to the demand and generation scenarios in clause D4(1) of Schedule D of the **Capex IM**;

12.2.2 consideration of alternative options for carrying out the **listed project**, including non-replacement and demolition, enhancement or development of alternative assets, and non-transmission solutions;

12.2.3 intended scope of the **listed project**, including specification of the **grid outputs** that apply in respect of the **listed project**;

12.2.4 all relevant technical and costing information used to estimate both the cost of the **listed project** and alternative options, including details on risk allowances and contingencies;

12.2.5 estimated cost of the **listed project**, in expected year of commissioning prices, and the assumptions used to derive the estimated cost;

12.2.6 a cost-benefit analysis in accordance with clause 3.2.1(a) of the **Capex IM** and as further described in clause 12.3, including a sensitivity analysis and reasons for selecting the variables of the sensitivity analysis;

12.2.7 evidence of consultation with interested persons in accordance with clause 3.2.1(b) of the **Capex IM**;

12.2.8 evidence that its Board of Directors has approved the **listed project** as a **base capex project** or **base capex programme** and that the business case approved by **Transpower's** Board included **Transpower's** fully completed 'Business Case 3' (BC3) quality assurance checklist in respect of the **listed project**;

12.2.9 evidence that **Transpower's** Board of Directors has delegated financial authority to commence the **listed project**, subject only to Commission approval of the additional **base capex allowance**; and

12.2.10 certification of the application in accordance with clause 12.4.

12.3 For the purposes of subclause 12.2.1, a cost-benefit analysis is one that reflects the efficient costs that a prudent supplier of **electricity transmission services** would require to:

12.3.1 meet or manage the expected demand for **electricity transmission services**, at appropriate service standards, during **RCP2** and over the longer term; and

12.3.2 comply with applicable regulatory obligations associated with those services.

12.4 For the purposes of clause 12.2.7, the chief executive officer of **Transpower** must certify in writing that, having made all reasonable enquiries, it is his or her belief that:

12.4.1 the information provided in **Transpower's** application to the **Commission** was derived from and accurately represents, in all material respects, the operations of **Transpower**; and

12.4.2 the **base capex** to which the **listed project** relates was approved in accordance with the applicable requirements of **Transpower's capital expenditure** approval policies.

12.5 Where **Transpower's** chief executive officer has signed a certificate in accordance with clause 12.4 that has been provided by **Transpower** to the **Commission**, and he or she becomes aware before the **Commission** makes its decision in accordance with clause 12.6 that a material fact relevant to **Transpower's** application is untrue or there is significant cause to doubt the accuracy of the fact, that chief executive officer must notify the **Commission** as soon as reasonably practicable.

12.6 The **Commission** may, at its discretion, approve inclusion of all or any of an amount of **capital expenditure** for a **listed project** within the **base capex allowance** for **RCP2**, following evaluation of **Transpower's** application in accordance with:

12.6.1 the consultation requirements in clause 8.1.1 of the **Capex IM**;

12.6.2 the criteria in clause 6.1.1(1) and (2) of the **Capex IM** and, where relevant, Schedule A of the **Capex IM**.

12.7 Where the Commission approves inclusion of an amount of **capital expenditure** of a **listed project** in the **base capex allowance** for **RCP2**, the amended **base capex allowance** will be specified by the **Commission**.

12.8 The **Commission** will publish its decision on **Transpower's** application as soon as reasonably practicable.

Part 4: Quality standards and revenue-linked grid output measures

Quality standards

13. Quality standards

The quality standards are the **grid output targets** for each **revenue-linked grid output measure** as shown in Table 4.1.

Revenue-linked grid output measures

14. Revenue-linked grid output measures

14.1 The seventeen **revenue-linked grid output measures**, for each **disclosure year**, are:

14.1.1 **measures of grid performance** for each of the five **categories** of **point of connection**, being:

(a) for the **measures of grid performance MGP1A**, **MGP1B**, **MGP1C**, **MGP1D** and **MGP1E**: number of **unplanned interruptions**;

(b) for the **measures of grid performance MGP2A**, **MGP2B**, **MGP2C**, **MGP2D** and **MGP2E**: average duration (minutes) of any **unplanned interruption**;

(c) for the **measures of grid performance MGP3A**, **MGP3B**, **MGP3C**, **MGP3D** and **MGP3E**: duration (minutes) of the **unplanned interruption** at the 90^{th} percentile duration of all **restored unplanned interruptions**;

for the **points of connection** associated with that **category** as shown in Schedule F ;

14.1.2 **asset performance measures**, being:

(a) for **asset performance measure APM1**: the **HVDC energy availability** of the **HVDC link** as a percentage of annual capacity;

(b) for **asset performance measure APM2**: the percentage of time that the **HVAC** circuits listed in Schedule G are available.

15. For each of the seventeen **revenue-linked grid output measures** identified in clause 14.1 above, the **grid output target**, **cap**, **collar**, and **grid output incentive rate** identified in Table 4.1 apply.

Table 4.1: Grid output targets, caps, collars and grid output incentive rates

Description: grid output measure	Category / Circuits	Measure reference	Grid output target	Cap	Collar	Grid output incentive rate ($000)
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]	[Column 6]	[Column 7]
Measures of grid performance						
Number of unplanned interruptions	High Priority	MGP1A	2	0	4	606
	Important	MGP1B	9	4	14	242
	Standard	MGP1C	26	21	31	133
	Generator	MGP1D	11	6	16	133
	N-security	MGP1E	50	26	74	10
Average duration (minutes) of an unplanned interruption	High Priority	MGP2A	70	30	110	15
	Important	MGP2B	100	30	170	9
	Standard	MGP2C	65	0	130	5
	Generator	MGP2D	130	50	210	4
	N-security	MGP2E	80	45	115	3
Duration (minutes) of P90 unplanned interruption	High Priority	MGP3A	120	80	160	15
	Important	MGP3B	240	170	310	9
	Standard	MGP3C	130	60	200	5
	Generator	MGP3D	350	260	440	4
	N-security	MGP3E	215	170	260	3
Asset performance measures						
HVDC availability (%)		APM1	98.5	99.5	97.5	1000
HVAC availability (%)	key circuits	APM2	99.6	100	99.2	2500

16. The grid output adjustment applies to revenue-linked grid output measures

16.1 **Transpower** must apply the **grid output adjustment** in accordance with Schedule B3 of the **Capex IM** to each of the **revenue-linked grid output measures.**

16.2 Output achieved in respect of each **revenue-linked grid output measure**, for each **disclosure year**, shall be calculated in the following manner:

16.2.1 For measure references **MGP1A**, **MGP1B**, **MGP1C**, **MGP1D** and **MGP1E**, the number of all **unplanned interruptions**;

16.2.2 For measure references **MGP2A**, **MGP2B**, **MGP2C**, **MGP2D** and **MGP2E**, the total duration of all **unplanned interruptions** divided by the number of **unplanned interruptions**;

16.2.3 For measure references **MGP3A**, **MGP3B**, **MGP3C**, **MGP3D** and **MGP3E**, the duration of the **unplanned interruption** that is at the 90th percentile of all **unplanned interruptions** when they are ranked by duration from shortest to longest;

16.2.4 For measure reference **APM1**, the average **HVDC energy availability** of **HVDC poles** 2 and 3 where **HVDC energy availability** of *i* is calculated as a percentage term in the following manner:

$$100 - \frac{\sum_{j=0}^{N}(reduction\ in\ capacity\ of\ i\ due\ to\ \boldsymbol{outage} j)\ (duration\ of\ \boldsymbol{outage}\ j\ in\ hour)\ x\ 100}{(maximum\ capacity\ of\ \ i)\ (total\ number\ of\ hours\ in\ the\ \boldsymbol{disclosure\ year})}$$

where:

i is **HVDC pole** 2 or **HVDC pole** 3

j is the **outage** that reduced capacity of the respective **HVDC pole**

N is the total number of **outages** associated with the relevant **HVDC pole**;

16.2.5 For measure reference **APM2**, the percentage term calculated as:

$$100 - \frac{(total\ duration\ (in\ hours)\ of\ all\ \boldsymbol{outages}\ on\ the\ \boldsymbol{HVAC}\ circuits\ listed\ in\ Schedule\ G\ )\ x\ 100}{(number\ of\ \boldsymbol{HVAC}\ circuits\ listed\ in\ Schedule\ G)\ (total\ number\ of\ hours\ in\ the\ \boldsymbol{disclosure\ year})};$$

16.3 For the purposes of clauses 16.2.2 and 16.2.3, the duration of an **unplanned interruption** means the elapsed time (in minutes) from the start of the **unplanned interruption** until the earlier of either:

16.3.1 **restoration**; or

16.3.2 seven days after the **unplanned interruption** started.

16.4 For the purposes of measure references **MGP1D**, **MGP2D** and **MGP3D**, **unplanned interruptions** excludes one or both of:

16.4.1 **unplanned interruptions** originating on another party's system and where the **Transpower grid** operated correctly;

16.4.2 **unplanned interruptions** to the auxiliary load used for internal purposes by electricity generators.

16.5 For the purposes of all **measures of grid performance** other than measure references **MGP1D**, **MGP2D** and **MGP3D**, **unplanned interruptions** excludes:

16.5.1 load restrictions achieved completely by the use of controllable load, interruptible load or demand-response;

16.5.2 automatic under-frequency load-shedding; and

16.5.3 any **unplanned interruption** originating on another party's system and where the **Transpower grid** operated correctly.

Part 5: Compliance and information reporting

17. Pricing compliance statement

17.1 No later than five **working days** after **Transpower** announces, or amends, its forecast **HVAC revenue** or forecast **HVDC revenue** for the purpose of setting or resetting charges under the **TPM** for a **pricing year**, **Transpower** must:

17.1.1 provide to the **Commission** a written statement (the **pricing compliance statement**); and

17.1.2 publish the **pricing compliance statement** on its website.

17.2 The **pricing compliance statement** must:

17.2.1 state whether or not **Transpower** has complied with the price path in Part 3 for the **pricing year**;

17.2.2 include any information reasonably necessary to demonstrate whether **Transpower** has complied with the price path in Part 3 for the **pricing year**, including but not limited to a summary of forecast total revenues applied in the **TPM** under the **code** for the **pricing year**;

17.2.3 state the date on which the **pricing compliance statement** was prepared; and

17.2.4 include a certificate in the form set out in Schedule K signed by at least two **directors** of **Transpower**.

18. Annual compliance statement

18.1 No later than the last **working day** in September after the end of the **disclosure year**, **Transpower** must:

18.1.1 provide to the **Commission** a written statement (the **annual compliance statement**); and

18.1.2 publish the **annual compliance statement** and accompanying **independent assurance report** on its website.

18.2 The **annual compliance statement** must:

18.2.1 state whether or not **Transpower** has:

(a) complied with the price path in Part 3 for the **disclosure year**; and

(b) publicly disclosed its annual **grid output adjustment** calculation for the **disclosure year**, including the values for *m,* in accordance with clause 8.17 of the **ID determination**;

18.2.2 state the date on which the **annual compliance statement** was prepared;

18.2.3 include a certificate in the form set out in Schedule L signed by at least two **directors** of **Transpower**; and

18.2.4 be accompanied by an **independent assurance report** procured and prepared in accordance with clause 25.1.

19. Annual compliance statement – information required

19.1 The **annual compliance statement** for a **disclosure year** must include:

19.1.1 if **Transpower** has not complied with the price path, the reasons for non-compliance;

19.1.2 reasons for the variation from quality standards in any instance where the output achieved for any **revenue-linked grid output measure**:

(a) exceeds (ie, over-achieves relative to) the **cap**; or

(b) fails to meet (ie, under-achieves relative to) the **collar**;

19.1.3 the **ex-post economic gain or loss** (including for each of **HVAC** and **HVDC**) for the **disclosure year**, calculated in accordance with clause 20.1 and Schedule E, including any supporting information;

19.1.4 the **forecast MAR** used for the **relevant pricing year**;

19.1.5 the **HVAC revenue** for the **relevant pricing year**;

19.1.6 the **HVDC revenue** for the **relevant pricing year**;

19.1.7 a description and explanation of any voluntary revenue reduction **Transpower** has made in calculating the **ex-post economic gain or loss** for the **disclosure year**;

19.1.8 information about **Transpower**'s performance against the **grid output measures** to which the **grid output mechanism** does not apply, as specified in clause 21.1;

19.1.9 the update of any **forecast MAR** that is calculated at the end of the **disclosure year** in accordance with clause 22.1 and Schedule D, including any supporting information;

19.1.10 a description and explanation of any material variations to the **forecast MAR calculation model** made during the **disclosure year** and used in the update of any **forecast MAR**;

19.1.11 a description and explanation of any voluntary revenue reductions that **Transpower** seeks to apply when setting charges under the **TPM** for any future **pricing year**;

19.1.12 an updated summary of the **forecast MAR** that provides the information set out in Schedule A;

19.1.13 an updated summary of the **EV account** that covers the information required by clause 23.1 and Schedule B;

19.1.14 a summary of the incremental rolling incentive scheme that covers the information set out in Schedule C;

19.1.15 a summary of **pass-through costs** and **recoverable costs** that covers the information set out in Schedule H, including:

(a) the **pass-through costs** and **recoverable costs** recovered by **Transpower** from **customers** as part of its revenue for the **relevant pricing year**;

(b) the **pass-through costs** and **recoverable costs** incurred by **Transpower** during the **disclosure year**;

(c) a description and explanation of any operating costs incurred as part of a **major capex project**; and

(d) a summary of the prudent net additional operating costs incurred in responding to a **catastrophic event**.

(e) the allocation of any adjustment amounts arising from the differences between the amounts in subclauses 19.1.16(a) and 19.1.16(b) above, applied in the forecast **pass-through costs** and forecast **recoverable costs** in the setting of transmission charges under the **TPM** in the next **pricing year** following the calculation of the adjustments;

(f) a description and explanation of any voluntary revenue reduction **Transpower** has made in calculating the **recoverable costs** recovered by **Transpower** from **customers** as part of its revenue for the **relevant pricing year**;

19.1.16 an updated summary of the **base capex allowance** that provides the information set out in Schedule I;

19.1.17 details of any changes to **Transpower's** policy of hedging **capital expenditure** during the **disclosure year**; and

19.1.18 a progress update on the **business improvement initiatives plan** specified in clause 26.1, including an explanation for any changes to the plan since the most recent previous update.

20. Wash-up building blocks calculation

20.1 For the purposes of calculating the after-tax **ex-post economic gain or loss** for the **disclosure year**, **Transpower** must use:

20.1.1 the approach and formulae specified in Schedule E;

20.1.2 the **opening RAB value**;

20.1.3 the actual amounts by month of **commissioning** in the **disclosure year** for **value of commissioned asset** of approved **base capex** and **major capex**;

20.1.4 the **WACC**;

20.1.5 **depreciation,** including any capitalised interest depreciation adjustments required to align **Transpower**'s cost of financing on its **works under construction** with the requirements of clause 2.2.7(2) of the **Transpower IM**;

20.1.6 the following **opex allowances**, adjusted for any disparity between the **forecast CPI** and the actual **CPI**:

(a) for the **disclosure year** from 1 July 2015 to 30 June 2016, $XXX.X million;

(b) for the **disclosure year** from 1 July 2016 to 30 June 2017, $XXX.X million;

(c) for the **disclosure year** from 1 July 2017 to 30 June 2018, $XXX.X million;

(d) for the **disclosure year** from 1 July 2018 to 30 June 2019, $XXX.X million;

(e) for the **disclosure year** from 1 July 2019 to 30 June 2020, $XXX.X million;

20.1.7 as the **forecast CPI** used to determine the **opex allowance** in subclause 20.1.7 above:

(a) for the **disclosure year** from 1 July 2015 to 30 June 2016, 1.91%;

(b) for the **disclosure year** from 1 July 2016 to 30 June 2017, 1.96%;

(c) for the **disclosure year** from 1 July 2017 to 30 June 2018, 2.00%;

(d) for the **disclosure year** from 1 July 2018 to 30 June 2019, 2.00%;

(e) for the **disclosure year** from 1 July 2019 to 30 June 2020, 2.00%;

20.1.8 the **corporate tax rate**;

20.1.9 the **regulatory tax allowance**;

20.1.10 the **term credit spread differential allowance**;

20.1.11 for actual revenues received by **Transpower**:

(a) the **transmission revenue** received in the **relevant pricing year**; and

(b) the sum of **other regulated income** received in the **disclosure year**;

20.1.12 the **EV adjustments** included in the **forecast MAR** for the **relevant pricing year**; and

20.1.13 any voluntary reduction in **transmission revenue** made by **Transpower** for the **disclosure year**.

21. Performance against grid output measures to which the grid output mechanism does not apply

21.1 For the purposes of clause 19.1.9 above, the information that **Transpower** must provide about the **grid output measures** to which the **grid output mechanism** does not apply includes, for the **disclosure year**:

21.1.1 the percentage of **unplanned interruptions** where **Transpower** made contact within 15 minutes with all **customers** affected by the **unplanned interruption** and provided them with relevant information about it;

21.1.2 the maximum time taken by **Transpower** to first make contact with a **customer** affected by an **unplanned interruption** and provide them with relevant information about it;

21.1.3 for **unplanned interruptions** that were not **restored** within 30 minutes:

(a) the percentage of those **unplanned interruptions** where **Transpower** provided updated information within 30 minutes of its initial contact with all **customers** affected by the **unplanned interruption**;

(b) the maximum time taken by **Transpower** to provided updated information to a **customer** affected by the **unplanned interruption**; and

(c) the number of instances where **Transpower** failed to provide updated information to a **customer** affected by the **unplanned interruption**;

21.1.4 the percentage of **unplanned interruptions** that were **restored**:

(a) within 10 minutes of the advised estimated **restoration** time;

(b) within 30 minutes of the advised estimated **restoration** time; or

(c) more than 30 minutes after the advised estimated **restoration** time;

21.1.5 the percentage of **planned outages** where the actual time at which **Transpower** had advised the **customer** or **system operator** that the equipment can be returned to service was:

(a) after the notified end time **Transpower** provided to the **system operator** in accordance with clause 3 of Technical Code D of Schedule 8.3 of the **code**;

(b) more than 30 minutes after the notified end time **Transpower** provided to the **system operator** in accordance with clause 3 of Technical Code D of Schedule 8.3 of the **code**;

21.1.6 for each **point of connection**, the percentage of time that the **point of connection** was reduced to N-security, where the **grid** configuration was such that an **unplanned outage** may cause an **interruption** at that **point of connection**;

21.1.7 the number of **momentary interruptions**:

(a) at each **point of connection**;

(b) for all **points of connection** within each **category**;

21.1.8 for **interruptions** caused by automatic under-frequency load shedding as well as for **unplanned interruptions**:

(a) the date, time and duration in minutes of the **unplanned interruption** or **interruption**;

(b) the estimated **unserved energy** (in megawatt-hours) for each **point of connection** due to the **unplanned interruption** or **interruption**;

(c) where **unserved energy** for the **unplanned interruption** or **interruption** is greater than 0.5 **system minutes, Transpower** must also provide:

(i) the reasons for the **unplanned interruption** or **interruption**;

(ii) an explanation of **Transpower's** response to the **unplanned interruption** or **interruption**; and

(iii) an explanation of any changes to **Transpower 's** policies or standards as a result of the **unplanned interruption** or **interruption -**

where **system minutes** are calculated as the estimated **unserved energy** (in megawatt-minutes) divided by the single maximum half-hourly input in megawatts to the **grid** during a **disclosure year**;

21.1.9 the percentage of **planned outages**, of circuits listed in Schedule G where the start time was:

(a) within 30 minutes of the notified start time **Transpower** provided to the **system operator** in accordance with clause 3 of Technical Code D of Schedule 8.3 of the **code**;

(b) more than 60 minutes after the notified start time **Transpower** provided to the **system operator** in accordance with clause 3 of Technical Code D of Schedule 8.3 of the **code**;-

21.1.10 the percentage of **planned outages** of individual assets of the **HVDC links**, where the start time was:

(a) within 30 minutes of the notified start time **Transpower** provided to the **system operator** in accordance with clause 3 of Technical Code D of Schedule 8.3 of the **code**;

(b) more than 60 minutes after the notified start time **Transpower** provided to the **system operator** in accordance with clause 3 of Technical Code D of Schedule 8.3 of the **code**;

21.1.11 the number of **unplanned interruptions** where **Transpower** did not provide a written report about that **unplanned interruption** within 15 working days to all affected **customers**; and

21.1.12 the percentage of **unplanned interruptions** where **Transpower** did not provide a written report about that **unplanned interruption** within 15 working days to all affected **customers**.

22. Transpower to propose update of forecast MAR

22.1 **Transpower** must use the **forecast MAR calculation model** to calculate an update of a **forecast MAR** as specified by clause 19.1.10 above, to take account of the incremental revenue effect of**:**

22.1.1 forecast **major capex** approved by the **Commission** in the **disclosure year**;

22.1.2 **base capex** relating to **listed projects** approved by the **Commission** in the **disclosure year**; and

22.1.3 an **EV adjustment** calculated for the **forecast MAR** in accordance with clause 24.1.

22.2 The calculation of the update of a **forecast MAR** must, where applicable, use:

22.2.1 the approach and formulae specified in Schedule D;

22.2.2 the forecast **opening RAB value**;

22.2.3 the forecast amounts by month of **commissioning** in the **disclosure year** for **value of commissioned asset** of approved **base capex** and **major capex**;

22.2.4 as the **base capex allowance**:

(a) for the **disclosure year** from 1 July 2015 to 30 June 2016, $XXX.X million;

(b) for the **disclosure year** from 1 July 2016 to 30 June 2017, $XXX.X million plus **base capex** relating to **listed projects** approved by the **Commission** that is forecast to be **commissioned** in that **disclosure year**;

(c) for the **disclosure year** from 1 July 2017 to 30 June 2018, $XXX.X million plus **base capex** relating to **listed projects** approved by the **Commission** that is forecast to be **commissioned** in that **disclosure year**;

(d) for the **disclosure year** from 1 July 2018 to 30 June 2019, $XXX.X million plus **base capex** relating to **listed projects** approved by the **Commission** that is forecast to be **commissioned** in that **disclosure year**;

(e) for the **disclosure year** from 1 July 2019 to 30 June 2020, $XXX.X million plus **base capex** relating to **listed projects** approved by the **Commission** that is forecast to be **commissioned** in that **disclosure year**;

22.2.5 as the **forecast CPI** used to determine the **base capex allowance** in subclause 22.2.5 above:

(a) for the **disclosure year** from 1 July 2015 to 30 June 2016, 1.91%;

(b) for the **disclosure year** from 1 July 2016 to 30 June 2017, 1.96%;

(c) for the **disclosure year** from 1 July 2017 to 30 June 2018, 2.00%;

(d) for the **disclosure year** from 1 July 2018 to 30 June 2019, 2.00%;

(e) for the **disclosure year** from 1 July 2019 to 30 June 2020, 2.00%;

22.2.6 as the **forecast FX rate** for conversion of US dollar to NZ dollars used to determine the **base capex allowance** in subclause 22.2.5 above:

(a) for the **disclosure year** from 1 July 2015 to 30 June 2016, 0.79;

(b) for the **disclosure year** from 1 July 2016 to 30 June 2017, 0.77;

(c) for the **disclosure year** from 1 July 2017 to 30 June 2018, 0.75;

(d) for the **disclosure year** from 1 July 2018 to 30 June 2019, 0.73;

(e) for the **disclosure year** from 1 July 2019 to 30 June 2020, 0.72;

22.2.7 as percentage of the **base capex allowance** to which the **forecast FX rate** applies for the purposes of determining the **base capex allowance** in subclause 22.2.5 above:

(a) for the **disclosure year** from 1 July 2015 to 30 June 2016, X.XX**%;**

(b) for the **disclosure year** from 1 July 2016 to 30 June 2017, X.XX**%;**

(c) for the **disclosure year** from 1 July 2017 to 30 June 2018, X.XX**%;**

(d) for the **disclosure year** from 1 July 2018 to 30 June 2019, X.XX**%;**

(e) for the **disclosure year** from 1 July 2019 to 30 June 2020, X.XX**%;**

22.2.8 the **WACC**;

22.2.9 forecast **depreciation,** including a forecast of any capitalised interest depreciation adjustments required to align **Transpower**'s cost of financing on its **works under construction** with the requirements of clause 2.2.7(2) of the **Transpower IM**;

22.2.10 as the value of the **opex allowance** building block:

(a) for the **disclosure year** from 1 July 2015 to 30 June 2016, $XXX.X million;

(b) for the **disclosure year** from 1 July 2016 to 30 June 2017, $XXX.X million;

(c) for the **disclosure year** from 1 July 2017 to 30 June 2018, $XXX.X million;

(d) for the **disclosure year** from 1 July 2018 to 30 June 2019, $XXX.X million;

(e) for the **disclosure year** from 1 July 2019 to 30 June 2020, $XXX.X million; and

22.2.11 the **EV adjustments** calculated for the **forecast MAR**.

22.3 For the purposes of determining the revenue impact of **major capex** or **base capex** relating to **listed projects** approved by the **Commission**, **Transpower** must:

22.3.1 identify each **major capex project** approved by the **Commission** in the **disclosure year** if the **project** is forecast to be **commissioned** during the period from 1 July 2015 to 30 June 2020;

22.3.2 identify each **base capex project** relating to a **listed project** approved by the **Commission** in the **disclosure year** if the **project** is forecast to be **commissioned** during the period from 1 July 2015 to 30 June 2020; and

22.3.3 for each **project** identified in accordance with subclauses 22.3.1 and 22.3.2 above, separately detail:

(a) the forecast date that the **project** will be **commissioned;** and

(b) the incremental revenue impact of the **project** on each applicable future **forecast MAR**.

23. EV account summary

23.1 For the purposes of providing the information specified in clause 19.1.14 above for the **disclosure year**, the EV Account Summary must for each **EV account** show:

23.1.1 a reconciliation of the opening and closing balances of the **EV account** that takes into account:

(a) the opening balance of the **EV account**;

(b) the calculation of interest at **WACC** on the opening balance of the **EV account**;

(c) the allocation of **EV account entries** to the respective **EV accounts** for **HVAC customers** and **HVDC customers**; and

(d) the **EV adjustments** made in the **forecast MAR** in the **relevant pricing year**.

23.1.2 the calculated forward spreading of **EV account** balances, showing how the opening balance of the EV account and the **EV account entries** for the **disclosure year** are converted into the forecast **EV adjustments** for each **disclosure year** remaining in **RCP2**, taking into account interest at **WACC** on the forecast opening **EV account** balance for each **disclosure year**.

23.1.3 the source of calculation of the **EV account entries** referred to in subclause 23.1.1(c) for:

(a) the after -tax **ex-post economic gain or loss** calculated for the final **disclosure year** of **RCP1**;

(b) the after-tax gain or loss in respect of an instrument that ceases to be an effective hedge for the final **disclosure year** of **RCP1**;

(c) the after-tax gain or loss in respect of a commodity instrument that is not an effective hedge for the final **disclosure year** of **RCP1**;

(d) the after-tax economic gain of a **major capex efficiency adjustment** for **RCP1**, calculated in accordance with clause 4.1.1 of the **Capex IM**;

(e) the after-tax amount of **minor capital expenditure** in excess of aggregate approved **minor capital expenditure** for **RCP1** or of any **minor capital expenditure** that has not been fully subject to **Transpower's** internal approval processes, calculated following the final **disclosure year** of **RCP1**;

(f) the after-tax revenue amount relating to **minor capital expenditure** in **RCP1** for which **Transpower** applies, and the **Commission** approves, after 30 June 2015 to partially or fully offset the amount in subclause (e) above;

(g) the after-tax **ex-post economic gain or loss**, as calculated in accordance with clause 20.1;

(h) the after-tax **gain or loss on capital expenditure commitments**;

(i) the after-tax economic gain or loss of a **grid output adjustment**, calculated in accordance with clause 8.17 of the **ID determination**;

(j) the after-tax economic gain or loss of a **base capex expenditure adjustment**, calculated in accordance with clause 8.15 of the **ID determination**;

(k) the after-tax economic loss of a **policies and processes adjustment**, calculated in accordance with clause 8.16 of the **ID determination**;

(l) the after-tax economic loss of a **major capex overspend adjustment**, calculated in accordance with clause 8.20.8 of the **ID determination**;

(m) the after-tax economic loss of a **major capex project output adjustment**, calculated in accordance with clause 8.20.10 of the **ID determination**; and

(n) the after-tax amount of a **major capex sunk costs adjustment**, calculated in accordance with clause 3.3.5 of the **Capex IM**.

23.2 For calculation of applicable **EV account entries**:

23.2.1 the **major capex incentive rate** is 33%;

23.2.2 the **base capex incentive rate** is 33%; and

23.2.3 the **base capex allowance** is the amount applicable to each **disclosure year** as specified in subclause 22.2.5;

23.2.4 the **forecast CPI** used to determine the **base capex allowance** is the value applicable to each **disclosure year** as specified in subclause 22.2.6;

23.2.5 the **forecast FX rate** for conversion of US dollars to NZ dollars used to determine the **base capex allowance** is the value applicable to each **disclosure year** as specified in subclause 22.2.7; and

23.2.6 the percentage of the **base capex allowance** to which the **forecast FX rate** applies for the purposes of determining the **base capex allowance** is the value applicable to each **disclosure year** as specified in subclause 22.2.8.

24. EV adjustment calculations

24.1 For the purposes of calculating an update of the **forecast MAR** for a **pricing year**, and subject to clause 25, the **EV adjustments** will include:

24.1.1 for each **pricing year** in **RCP2**:

(a) one-fifth of the part of the **EV account** balance at 30 June 2015 that relates to the **EV account** balance recorded by **Transpower** as at 30 June 2011, and including in that part any interest accrued to 30 June 2015 on that portion of the **EV account** balance calculated at the **WACC** specified for **RCP1**; and

(b) forecast interest at **WACC** specified for **RCP2**, calculated on each one-fifth instalment in subclause (a) above for the period from 1 July 2015 to the commencement of each applicable **disclosure year** to which each one-fifth instalment is applied to the **forecast MAR**.

24.1.2 for the 2016-17 **pricing year** of **RCP2**, amounts equal to:

(a) the after-tax **ex-post economic gain or loss** calculated for the final **disclosure year** of **RCP1**;

(b) the after-tax **gain or loss on capital expenditure commitments** for the final **disclosure year** of **RCP1**;

(c) the **major capex efficiency adjustment** for the final **disclosure year** of **RCP1**;

(d) the **major capex overspend adjustment** for the final **disclosure year** of **RCP1**;

(e) the **major capex sunk costs adjustment** for the final **disclosure year** of **RCP1**;

(f) the after-tax **EV account entry** in respect of **minor capital expenditure** in excess of aggregate approved **minor capital expenditure** for **RCP1** or any **minor capital expenditure** that has not been fully subject to **Transpower's** internal approval processes, calculated following the final **disclosure year** of **RCP1**; and

(g) forecast interest at **WACC** specified for **RCP2**, calculated on each of the amounts in subclauses (a) to (e) above for the period from 1 July 2015 to 30 June 2016.

24.1.3 for the 2016-17 to 2019-20 **pricing years**, amounts equal to:

(a) the **ex-post economic gain or loss** for a preceding **disclosure year** of **RCP2** that has not yet been recovered or returned, as applicable, to Transpower's customers in the **forecast MAR**;

(b) the after-tax **gain or loss on capital expenditure commitments** for a preceding **disclosure year** of **RCP2** that has not yet been recovered or returned, as applicable, to **Transpower's customers** in the **forecast MAR**;

(c) the **major capex adjustments** for a preceding **disclosure year** of **RCP2** that have not yet been recovered or returned, as applicable, to **Transpower's customers** in the **forecast MAR**;

(d) the **base capex adjustments** for a preceding **disclosure year** of **RCP2** that have not yet been recovered or returned, as applicable, to **Transpower's customers** in the **forecast MAR**;

(e) the **grid output adjustment** for a preceding **disclosure year** of **RCP2** that has not yet been recovered or returned, as applicable, to **Transpower's customers** in the **forecast MAR**;

(f) the after-tax revenue amount relating to **minor capital expenditure** in **RCP1** for which **Transpower** applies, and the **Commission** approves, after 30 June 2015 to partially or fully offset the amount of the **EV account entry** in subclause 24.1.2(d); and

(g) forecast interest at **WACC** specified for **RCP2**, calculated in each case from the end of the preceding **disclosure year** referred to in subclauses (a) to (f) above for the period to the date of commencement of the **disclosure year** to which the **forecast MAR** referred to in clause 24.1 is associated.

24.1.4 for the 2016-17 to 2019-20 **pricing years**, amounts equal to:

(a) the after-tax amount for each **pricing year** as determined by the **Commission** for any **major capex overspend adjustment** or **major capex project output adjustment** in respect of the North Island Grid Upgrade Project **commissioned** by **Transpower** in **RCP1**;

(b) interest at **WACC** specified for **RCP1**, calculated from the end of the **disclosure year** ending 1 July 2013 to 30 June 2015 on the sum of the amounts referred to in subclause (a) above; and

(c) forecast interest at **WACC** specified for **RCP2**, calculated in each case from 1 July 2015 for the period to the date of commencement of the **disclosure year** to which the **forecast MAR** referred to in clause 24.1 is associated.

24.1.5 a tax gross-up amount calculated at the **corporate tax rate**, and applying the tax rules where applicable, in respect of all after-tax amounts calculated in subclauses 24.1.1 to 24.1.4 in order to express the **EV adjustments** on a pre-tax basis in the **forecast MAR** building block inputs.

25. Applications to spread EV adjustments

25.1 When **Transpower** provides to the **Commission** its proposed update of a **forecast MAR** pursuant to clause 9.1, **Transpower** may also apply to the **Commission** for the **EV adjustment** in that proposed update of a **forecast MAR** to be spread over one or more remaining years of the **regulatory period**;

25.2 **Transpower**'s application must include reasons why it considers the **EV adjustment** in that proposed update of a **forecast MAR** has the potential to cause a price shock effect for **Transpower** or its **customers**;

25.3 The **Commission** may, at its discretion, spread the **EV adjustment** over one or more remaining years of the **regulatory period**, with consequent adjustments to the interest calculated on the balance of that **EV adjustment** using **WACC**.

26. Independent assurance report

26.1 Where **Transpower** is required to provide an **annual compliance statement**, **Transpower** must procure an assurance report by an **auditor** (the **independent assurance report**) in respect of the **annual compliance statement** that:

26.1.1 is prepared in accordance with Standard on Assurance Engagements 3100 – Compliance Engagements (SAE3100) and International Standard on Assurance Engagements 3000 (ISAE(NZ)3000) or their successor standards, signed by the **auditor**, either in his or her own name or that of his or her firm; and

26.1.2 is addressed to the **directors** of **Transpower** and to the **Commission** as the intended users of the assurance report.

26.2 The **independent assurance report** must state:

26.2.1 that it has been prepared in accordance with Standard on Assurance Engagements 3100 – Compliance Engagements (SAE3100) and International Standard on Assurance Engagements 3000 (ISAE(NZ)3000) or their successor standards;

26.2.2 the work done by the **auditor**;

26.2.3 the scope and limitations of the assurance engagement;

26.2.4 the existence of any relationship (other than that of auditor) which the **auditor** has with, or any interests which the **auditor** has in, **Transpower** or any of its subsidiaries;

26.2.5 whether the **auditor** has obtained sufficient recorded information and explanations that he or she required and, if not, the information and explanations not obtained;

26.2.6 whether in the **auditor's** opinion, as far as appears from the examination, the information used in the preparation of the **annual assurance report** has, where applicable, been properly extracted from **Transpower's** accounting and other records, sourced from its financial and non-financial systems;

26.2.7 whether, in the **auditor**'s opinion, as far as appears from an examination of them, proper records to enable the complete and accurate compilation of the **annual compliance report** have been kept by **Transpower** and, if not, the records not so kept; and

26.2.8 whether in the **auditor's** opinion, **Transpower** has complied, in all material respects, with this determination in preparing the **annual compliance statement** and, if not, the respects in which it has not done so.

27. Planned business improvement initiatives

27.1 No later than 1 July 2015, **Transpower** must:

27.1.1 provide to the **Commission** information (the **business improvement initiatives plan**); and

27.1.2 publish the **business improvement initiatives plan** on its website.

27.2 The **business improvement initiatives plan** must identify:

27.2.1 the business improvement initiatives that **Transpower** plans to advance during **RCP2**;

27.2.2 key milestones, deliverables, and associated timeframes for each of the business improvement initiatives **Transpower** plans to advance; and

27.2.3 how **Transpower** plans to monitor progress against its planned development of business improvement initiatives.

Schedule A: Forecast MAR summary

Forecast MAR applied to pricing years in RCP2 ending	**Forecast MAR is calculated based on building block values for the disclosure year ending**	**Initial determined value of forecast MAR**	**Incremental update to forecast MAR determined not later than 30 November 2015**	**Incremental update to forecast MAR determined not later than 30 November 2016**	**Incremental update to forecast MAR determined not later than 30 November 2017**	**Incremental update to forecast MAR determined not later than 30 November 2018**	**Total forecast MAR applicable to the pricing year**
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]	[Column 6]	[Column 7]	[Column 8]
31 March 2016 (Year 1)	30 June 2016	$XXX.X million	N/A	N/A	N/A	N/A	$XXX.X million
31 March 2017 (Year 2)	30 June 2017	$XXX.X million	$XX.X million	N/A	N/A	N/A	$XXX.X million
31 March 2018 (Year 3)	30 June 2018	$XXX.X million	$XX.X million	$XX.X million	N/A	N/A	$XXX.X million
31 March 2019 (Year 4)	30 June 2019	$XXX.X million	$XX.X million	$XX.X million	$XX.X million	N/A	$XXX.X million
31 March 2020 (Year 5)	30 June 2020	$XXX.X million	$XX.X million	$XX.X million	$XX.X million	$XX.X million	$XXX.X million

Schedule B: EV account summary

Item	**Formula**	**Description**
[Column 1]	[Column 2]	[Column 3]
Opening **EV account** balance	A	Closing balance in the **EV account** for the previous disclosure year
WACC	B	Post - tax **WACC**
Interest on opening **EV** balance	**C = A x B**	Opening **EV account** balance multiplied by **WACC**
EV account entries	D	The **EV account entries** as specified in clause 23.1.3 of this determination
EV adjustments relating to 2011 **EV account** balances	E	The **EV adjustments** relating to legacy **EV** balances as specified in clause 24.1.1(a) of this determination
EV adjustments for the 2016-17 pricing year	F	The **EV adjustments** for the 2016-17 pricing year as specified in clauses 24.1.2(a) - (f) of this determination
EV adjustments for the 2016-17 to 2019-20 pricing years	G	The **EV adjustments** for 2016-17 to 2019-20 pricing years as specified in clauses 24.1.3(a) - (f) of this determination
EV adjustments relating to the North Island Grid Upgrade Project	H	The **EV adjustments** for 2016-17 to 2019-20 pricing years relating to the North Island Grid Upgrade Project as specified in clauses 24.1.4 (a) and (b) of this determination
Closing **EV account** balance	**I = A + C + D - E – F – G - H**	Opening **EV account** balance plus interest on opening **EV account** balance plus **EV account entries** minus **EV adjustments**

Schedule C: Incremental rolling incentive scheme summary

Item	Formula	Description
[Column 1]	[Column 2]	[Column 3]
Incremental change in opening disclosure year of RCP2		
Allowed controllable opex (*t*)	A	**Opex allowance** adjusted for the discrepancy between actual **CPI** and **forecast CPI** in accordance with clause 20.1.7
Actual controllable opex (*t*)	B	Actual **operating expenditure** for **the disclosure year**
Incremental change in opening **disclosure year** (*t*)	**C = A - B**	
Incremental change in years other than opening disclosure year and final disclosure year of RCP2		
Allowed controllable opex (*t*)	D	**Opex allowance** for the **disclosure year** adjusted for the discrepancy between actual and forecast **CPI** in accordance with clause 20.1.7
Actual controllable opex (*t*)	E	Actual **operating expenditure** for the **disclosure year**
Allowed controllable opex (*t-1*)	F	**Opex allowance** for the previous **disclosure year** adjusted for the discrepancy between actual **CPI** and **forecast CPI** in accordance with clause 20.1.7
Actual controllable opex (*t-1*)	G	Actual **operating expenditure** for the previous **disclosure year**
Incremental change in year (*t*)	**H = D – E – F – G**	
Incremental adjustment term in opening disclosure year		
Allowed controllable opex (*t-1*)	I	**Opex allowance** for the 2014-15 **disclosure year** adjusted for the discrepancy between actual **CPI** and **forecast CPI**
Actual controllable opex (*t-1*)	J	Actual **operating expenditure** for the 2014-15 **disclosure year**
Allowed controllable opex (*t-2*)	K	**Opex allowance** for the 2013-14 **disclosure year** adjusted for the discrepancy between actual **CPI** and **forecast CPI**

Item	Formula	Description
[Column 1]	[Column 2]	[Column 3]
Actual controllable opex (*t-2*)	L	Actual **operating expenditure** for the 2013-14 **disclosure year**
Equivalent incremental change for opening **disclosure year** (*t -1*)	**M = I – J – K - L**	
Inflation rate (adjust *t-1* to *t*)	N	Change in **CPI** calculated in accordance with clause 3.6.1(5) of the **Transpower IM**
Incremental adjustment term for the opening **disclosure year** (*t*)	**O = M x (1 + N)**	
Inflation-adjusted amounts carried forward		
Incremental adjustment term , except in the 2015-16 **disclosure year**	P = O	
Incremental change, except in the 2015-16 and 2016-17 **disclosure years**, applied from year *t-5 (*adjusted at the inflation rate from *t-5* to *t)*	Q	The incremental change from five **disclosure years** prior adjusted to the present year using actual changes in **CPI** calculated in accordance with clause 3.6.1(5) of the **Transpower IM**
Incremental change, except in the 2015-16 **disclosure year**, applied from year *t-4 (*adjusted at the inflation rate from *t-4* to *t)*	R	The incremental change from four **disclosure years** prior adjusted to the present year using actual changes in **CPI** calculated in accordance with clause 3.6.1(5) of the **Transpower IM**
Incremental change applied from year *t-3(*adjusted at the inflation rate from *t-3* to *t)*	S	The incremental change from three **disclosure years** prior adjusted to the present year using actual changes in **CPI** calculated in accordance with clause 3.6.1(5) of the **Transpower IM**
Incremental change applied from year *t-2 (*adjusted at the inflation rate from *t-2* to *t)*	T	The incremental change from two **disclosure years** prior adjusted to the present year using actual changes in **CPI** calculated in accordance with clause 3.6.1(5) of the **Transpower IM**
Incremental change applied from year *t-1 (*adjusted at the inflation rate from *t-1* to *t)*	U	The incremental change from the previous **disclosure year** adjusted to the present year using actual changes in **CPI** calculated in accordance with clause 3.6.1(5) of the **Transpower IM**
Recoverable costs (net balance)	**V = P + Q + R + S + T + U**	**Recoverable costs** allowed under the **incremental rolling incentive scheme** for the disclosure year

Schedule D: Forecast MAR building blocks calculation

FORECAST MAR BUILDING BLOCK	DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED	FORMULA FOR FORECAST INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES	CASH FLOW TIMING FACTOR TO APPLY TO FORECAST NOMINAL VALUE	FORECAST MAR BUILDING BLOCK VALUE
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]
WACC	**WACC**	A1	WACC = A1	
WACC return on forecast opening RAB value	Forecast sum of **opening RAB value** for the **disclosure year**	B	$A1 / (1 + A1)^{238/365}$	$B \times A1 / (1 + A1)^{238/365}$
WACC return on forecast VCA_{JUL}	Forecast sum of **value of commissioned asset** for the month in the **disclosure year**	C1	$((1 + A1)^{348.5/365} - 1) / (1 + A1)^{238/365}$	$C1 \times ((1 + A1)^{348.5/365} - 1) / (1 + A1)^{238/365}$
WACC return on forecast VCA_{AUG}		C2	$((1 + A1)^{317.5/365} - 1) / (1 + A1)^{238/365}$	$C2 \times ((1 + A1)^{317.5/365} - 1) / (1 + A1)^{238/365}$
WACC return on forecast VCA_{SEP}		C3	$((1 + A1)^{287.5/365} - 1) / (1 + A1)^{238/365}$	$C3 \times ((1 + A1)^{287.5/365} - 1) / (1 + A1)^{238/365}$
WACC return on forecast VCA_{OCT}		C4	$((1 + A1)^{256.5/365} - 1) / (1 + A1)^{238/365}$	$C4 \times ((1 + A1)^{256.5/365} - 1) / (1 + A1)^{238/365}$
WACC return on forecast VCA_{NOV}		C5	$((1 + A1)^{226.5/365} - 1) / (1 + A1)^{238/365}$	$C5 \times ((1 + A1)^{226.5/365} - 1) / (1 + A1)^{238/365}$
WACC return on forecast VCA_{DEC}		C6	$((1 + A1)^{195.5/365} - 1) / (1 + A1)^{238/365}$	$C6 \times ((1 + A1)^{195.5/365} - 1) / (1 + A1)^{238/365}$
WACC return on forecast VCA_{JAN}		C7	$((1 + A1)^{164.5/365} - 1) / (1 + A1)^{238/365}$	$C7 \times ((1 + A1)^{164.5/365} - 1) / (1 + A1)^{238/365}$
WACC return on forecast VCA_{FEB}		C8	$((1 + A1)^{136.5/365} - 1) / (1 + A1)^{238/365}$	$C8 \times ((1 + A1)^{136.5/365} - 1) / (1 + A1)^{238/365}$

FORECAST MAR BUILDING BLOCK	DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED	FORMULA FOR FORECAST INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES	CASH FLOW TIMING FACTOR TO APPLY TO FORECAST NOMINAL VALUE	FORECAST MAR BUILDING BLOCK VALUE
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]
WACC return on forecast VCA_{MAR}	Forecast sum of **value of commissioned asset** for the month in the **disclosure year**	C9	$((1 + A1)^{105.5/365} - 1) / (1 + A1)^{238/365}$	C9 x $((1 + A1)^{105.5/365} - 1) / (1 + A1)^{238/365}$
WACC return on forecast VCA_{APL}		C10	$((1 + A1)^{75.5/365} - 1) / (1 + A1)^{238/365}$	C10 x $((1 + A1)^{75.5/365} - 1) / (1 + A1)^{238/365}$
WACC return on forecast VCA_{MAY}		C11	$((1 + A1)^{44.5/365} - 1) / (1 + A1)^{238/365}$	C11 x $((1 + A1)^{44.5/365} - 1) / (1 + A1)^{238/365}$
WACC return on forecast VCA_{JUN}		C12	$((1 + A1)^{14.5/365} - 1) / (1 + A1)^{238/365}$	C12 x $((1 + A1)^{14.5/365} - 1) / (1 + A1)^{238/365}$
Total forecast capital charge	Sum of **forecast MAR** building block values for formulas B through C12			Sum D = Sum of forecast MAR building block values B to C12

FORECAST MAR BUILDING BLOCK	DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED	FORMULA FOR FORECAST INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES	CASH FLOW TIMING FACTOR TO APPLY TO FORECAST NOMINAL VALUE	FORECAST MAR BUILDING BLOCK VALUE
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]
Forecast depreciation	Forecast **depreciation**	E	$1 / (1 + A1)^{238/365}$	$E / (1 + A1)^{238/365}$
Operating expenditure	**Opex allowance** approved by the **Commission** for the purposes of calculating the **forecast MAR**, as specified in clause 22.2.10 of this determination	F	$1 / (1 + A1)^{56/365}$	$F / (1 + A1)^{56/365}$
Forecast tax	The forecast **regulatory tax allowance**, calculated using the **corporate tax rate** and applying the **tax rules** to the forecast net operating profit before tax, using the 'treatment of taxation' input methodology in Part 3 Subpart 4 of the **Transpower IM**	G	$1 / (1 + A1)^{56/365}$	$G / (1 + A1)^{56/365}$
Forecast TCSD	The forecast **term credit spread differential allowance**, calculated in accordance with Part 3 Subpart 5 of the **Transpower IM**	H	$1 / (1 + A1)^{56/365}$	$H / (1 + A1)^{56/365}$

FORECAST MAR BUILDING BLOCK	DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED	FORMULA FOR FORECAST INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES	CASH FLOW TIMING FACTOR TO APPLY TO FORECAST NOMINAL VALUE	FORECAST MAR BUILDING BLOCK VALUE
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]
EV adjustment	**EV adjustment**, including a tax gross up at the **corporate tax rate**	I	$1 / (1 + A1)^{238/365}$	$I / (1 + A1)^{238/365}$
TOTAL FORECAST MAR	Sum of **forecast MAR** building block values for formulas D through I			Sum J = Sum D plus sum of forecast MAR building block values E to I

FORECAST MAR BUILDING BLOCK	DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED	FORMULA FOR FORECAST INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES	CASH FLOW TIMING FACTOR TO APPLY TO FORECAST NOMINAL VALUE	FORECAST MAR BUILDING BLOCK VALUE
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]
Forecast voluntary revenue adjustment	Forecast voluntary reduction in revenue as described by **Transpower** in accordance with clause 19.1.11 of this determination	K	$1 / (1 + A1)^{56/365}$	$K / (1 + A1)^{56/365}$
Forecast pass-through costs	Forecast **pass-through costs** in accordance with Part 3, subpart 1 of the **Transpower IM**, including any accrual adjustment for prior over- or under-recoveries of actual **pass-through costs**	L	$1 / (1 + A1)^{56/365}$	$L / (1 + A1)^{56/365}$
Forecast recoverable costs	Forecast **recoverable costs** in accordance with Part 3, subpart 1 of the **Transpower IM**, including any accrual adjustment for prior over- or under-recoveries of actual **recoverable costs**	M	$1 / (1 + A1)^{56/365}$	$M/ (1 + A1)^{56/365}$
TOTAL OF TRANSMISSION REVENUE APPLIED TO THE TPM UNDER THE CODE	Sum of forecast revenue values for formulas J through M			Sum N = Sum J plus sum of revenue values for K to M

Schedule E: Wash-up building blocks calculation

WASH-UP BUILDING BLOCK	DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED	FORMULA FOR INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES	CASH FLOW TIMING FACTOR TO APPLY TO NOMINAL VALUE	WASH-UP VALUE
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]
WACC return on opening RAB value	Sum of **opening RAB value** for the **disclosure year**	B	WACC = A1	B x A1
WACC return on VCA_{JUL}	Sum of **value of commissioned asset** for the month in the **disclosure year**	C1	$(1 + A1)^{348.5/365} - 1$	C1 x $((1 + A1)^{348.5/365} - 1)$
WACC return on VCA_{AUG}		C2	$(1 + A1)^{317.5/365} - 1$	C2 x $((1 + A1)^{317.5/365} - 1)$
WACC return on VCA_{SEP}		C3	$(1 + A1)^{287.5/365} - 1$	C3 x $((1 + A1)^{287.5/365} - 1)$
WACC return on VCA_{OCT}		C4	$(1 + A1)^{256.5/365} - 1$	C4 x $((1 + A1)^{256.5/365} - 1)$
WACC return on VCA_{NOV}		C5	$(1 + A1)^{226.5/365} - 1$	C5 x $((1 + A1)^{226.5/365} - 1)$
WACC return on VCA_{DEC}		C6	$(1 + A1)^{195.5/365} - 1$	C6 x $((1 + A1)^{195.5/365} - 1)$
WACC return on VCA_{JAN}		C7	$(1 + A1)^{164.5/365} - 1$	C7 x $((1 + A1)^{164.5/365} - 1)$
WACC return on VCA_{FEB}		C8	$(1 + A1)^{136.5/365} - 1$	C8 x $((1 + A1)^{136.5/365} - 1)$
WACC return on VCA_{MAR}		C9	$(1 + A1)^{105.5/365} - 1$	C9 x $((1 + A1)^{105.5/365} - 1)$
WACC return on VCA_{APL}		C10	$(1 + A1)^{75.5/365} - 1$	C10 x $((1 + A1)^{75.5/365} - 1)$

WASH-UP BUILDING BLOCK	DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED	FORMULA FOR INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES	CASH FLOW TIMING FACTOR TO APPLY TO NOMINAL VALUE	WASH-UP VALUE
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]
WACC return on VCA_{MAY}	Sum of **value of commissioned asset** for the month in the **disclosure year**	C11	$(1 + A1)^{44.5/365} - 1$	C11 x $((1 + A1)^{44.5/365} - 1)$
WACC return on VCA_{JUN}		C12	$(1 + A1)^{14.5/365} - 1$	C12 x $((1 + A1)^{14.5/365} - 1)$
WACC return on lost assets	Sum of the **opening RAB value** of **lost assets** in the **disclosure year**	D	$1 - (1 + A1)^{182/365}$	D x $(1 - (1 + A1)^{182/365})$
WACC return on found assets	Sum of the **value of found asset** of **found assets** in the **disclosure year**	E	$1 - (1 + A1)^{182/365}$	E x $(1 - (1 + A1)^{182/365})$
WACC return on disposed assets	Sum of **opening RAB value** of **disposed assets** in the **disclosure year**	F	$1 - (1 + A1)^{182/365}$	F x $(1 - (1 + A1)^{182/365})$
Total capital charge	Sum of wash-up values for formulas B through F			Sum G = sum of wash-up values B to F

WASH-UP BUILDING BLOCK	DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED	FORMULA FOR INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES	CASH FLOW TIMING FACTOR TO APPLY TO NOMINAL VALUE	WASH-UP VALUE
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]
Transmission revenues received	Sum of **transmission revenue**	H	$(1 + A1)^{238/365}$	$H \times (1 + A1)^{238/365}$
Revenue recovery of pass-through costs and recoverable costs	Sum of amounts in respect of **pass-through costs** and **recoverable costs** included in **transmission revenue**	I	$(1 + A1)^{238/365}$	$I \times (1 + A1)^{238/365}$
Transpower adjustment to recognise voluntarily foregone revenues	Amount of **HVAC revenue** and **HVDC revenue** permanently foregone by **Transpower**	J	$(1 + A1)^{238/365}$	$J \times (1 + A1)^{238/365}$
Other regulated income	Sum of **other regulated income**	K	$(1 + A1)^{182/365}$	$K \times (1 + A1)^{182/365}$
Gain/(loss) on disposal of assets	Sum of disposal proceeds less **opening RAB value** for **disposed assets**	L	$(1 + A1)^{182/365}$	$L \times (1 + A1)^{182/365}$
Total income	Sum of wash-up values for formulas H to L			Sum M = sum of wash-up values H, J, K and L, less wash-up value I

WASH-UP BUILDING BLOCK	DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED	FORMULA FOR INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES	CASH FLOW TIMING FACTOR TO APPLY TO NOMINAL VALUE	WASH-UP VALUE
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]
Operating expenditure	**Opex allowance** specified in clause 20.1.7 of this determination	N	$(1 + A1)^{182/365}$	N x $(1 + A1)^{182/365}$
Depreciation	**Depreciation** (excluding **depreciation** on **disposed assets**)	O		O
TCSD	The **term credit spread differential allowance**, calculated in accordance with Part 3 Subpart 5 of the **Transpower IM**	P	$(1 + A1)^{182/365}$	P x $(1 + A1)^{182/365}$
Net operating profit/(loss) before tax	Sum of wash-up values for formulas K through N			Sum Q = Sum M, less wash-up values N to P
Tax	The **regulatory tax allowance**, calculated using the **corporate tax rate** and applying the **tax rules** to the net operating profit before tax, using the treatment of taxation input methodology in Part 3 Subpart 4 of the IM determination	R	$(1 + A1)^{182/365}$	R x $(1 + A1)^{182/365}$
Net operating profit/(loss) after tax	Sum of wash-up values for formulas O and P			Sum S = Sum Q, less wash-up value R
AFTER-TAX EX-POST ECONOMIC GAIN OR LOSS	Difference between the capital charge (Sum G) and the net operating profit/(loss) after tax (Sum S) in accordance with clause 20.1 of this determination			Difference T = Sum G less Sum S

WASH-UP BUILDING BLOCK	DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED	FORMULA FOR INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES	CASH FLOW TIMING FACTOR TO APPLY TO NOMINAL VALUE	WASH-UP VALUE
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]
EV adjustment included in forecast MAR	Adjustment to recognise the **EV adjustment**, before tax gross up, as applied in setting the **forecast MAR**	U		U
EV ACCOUNT ENTRY	This is the after-tax **ex-post economic gain or loss** adjusted for the **EV adjustment** applied in setting the **forecast MAR** for the **relevant pricing year**, and is an **EV account entry**			Difference V = Difference T less value U

Schedule F: Quality standards - points of connection by category

Category	Description	Points of connection	
[Column 1]	[Column 2]	[Column 3}	
High priority	Point of service that serves very large or essential loads such as the Auckland CBD or the oil refinery at Bream Bay	ADD0111 Addington 11 kV ISL0661 Islington 66 kV ADD0661 Addington 66 kV OPK0331 Opunake ALB0331 Albany 33 kV PAK0331 Pakuranga ALB1101 Albany 110 kV PEN0331 Penrose 33 kV (A) BPE0331 Bunnythorpe 33 kV PEN1101 Penrose 110 kV BRB0331 Bream Bay INV0331 Invercargill	ROS0221 Mt Roskill 22 kV BRY0661 Bromley 66 kV SVL0331 Silverdale CPK0331 Central Park 33 kV TAK0331 Takanini HAM0331 Hamilton 33 kV TKR0331 Takapu Road HEN0331 Henderson TWI2201 Tiwai HEP0331 Hepburn Road KEN0331 Kensington
Important	Point of service that serves key industrial loads or large numbers of customers such as Kaiwharawhara	ASY0111 Ashley MNI0111 Motunui BDE0111 Brydone MPE1101 Maungatapere BRY0111 Bromley 11 kV OTA0221 Otahuhu 22 kV (A) CBG0111 Cambridge PEN0221 Penrose 22 kV CPK0111 Central Park 11 kV PRM0331 Paraparaumu EDN0331 Edendale ROS1101 Mt Roskill 110 kV GFD0331 Gracefield SPN0331 Springston 33 kV HAM0111 Hamilton 11 kV SPN0661 Springston 66 kV	HUI0331 Huirangi TWH0331 Te Kowhai HWA0331 Hawera (A) WHU0331 Waihou HWB0331 Halfway Bush WIL0331 Wilton ISL0331 Islington 33 kV WIR0331 Wiri KAW0112 Kawerau (B) EDG0331 Edgecumbe KOE1101 Kaikohe MGM0331 Mangamaire KWA0111 Kaiwharawhara SFD0331 Stratford LFD1101 Lichfield HWA1101 Hawera (A)

Category	Description	Points of connection	
		HAY0111 Haywards 11 kV	MLN0661 Middleton
		TGA0331 Tauranga 33 kV	KBY0661 Kimberley
		HOR0331 Hororata 33 kV	MNG0331 Mangere 33 kV
		TMK0331 Temuka	WRD0331 Wairau Road
		HOR0661 Hororata 66 kV	MNG1101 Mangere 110 kV
		TNG0111 Tangiwai 11 kV	
Standard	Those remaining points of service that serve demand customers and are not served by a single line/transformer	ASB0331 Ashburton 33 kV	GYM0661 Greymouth
		MTM0331 Mt Maunganui 33 kV	TGA0111 Tauranga 11 kV
		ASB0661 Ashburton 66 kV	GYT0331 Greytown
		MTN0331 Marton	TIM0111 Timaru
		BAL0331 Balclutha	HAM0551 Hamilton 55 kV
		MTO0331 Maungaturoto	TKU0331 Tokaanu (A)
		BDE0112 Brydone	HAY0331 Haywards 33 kV
		NMA0331 North Makarewa	TMI0331 Te Matai
		BLN0331 Blenheim	HKK0661 Hokitika
		NPL0331 New Plymouth 33 kV	TMN0551 Taumarunui
		BOB0331 Bombay 33 kV	HLY0331 Huntly
		NSY0331 Naseby	TNG0551 Tangiwai 55 kV
		BOB1101 Bombay 110 kV	HTI0331 Hangatiki
		OAM0331 Oamaru	UHT0331 Upper Hutt
		BPE0551 Bunnythorpe 55 kV	KAI0111 Kaiapoi
		ORO1101 Orowaiti	WDV0111 Woodville
		CML0331 Cromwell	KAW0111 Kawerau (A)
		OWH0111 Owhata	WEL0331 Wellsford
		CST0331 Carrington St	KIN0111 Kinleith 11 kV
		PAO1101 Piako	WGN0331 Wanganui
		CUL0331 Culverden	KMO0331 Kaitimako
		PEN0332 Penrose 33 kV (B)	WKO0331 Waikino
		CYD0331 Clyde	KPU0661 Kopu
		PNI0331 Pauatahanui	WPR0661 Waipara 66 kV
		DOB0331 Dobson	KUM0661 Kumara

Category	Description	Points of connection	
		RDF0331 Redclyffe	WPT0111 Westport
		DVK0111 Dannevirke	LTN0331 Linton
		RFN1101 Reefton	WPW0331 Waipawa 33 kV
		FHL0331 Fernhill	MHO0331 Mangahao
		ROT0111 Rotorua 11 kV	WRA0111 Wairoa
		FKN0331 Frankton (A)	MLG0111 Melling 11kV
		ROT0331 Rotorua 33 kV	WRK0331 Wairakei
		FKN0332 Frankton (B)	MLG0331 Melling 33 kV
		SBK0331 Southbrook	WTK0331 Waitaki
		GIS0501 Gisborne	MOT0111 Motueka
		SDN0331 South Dunedin	WTU0331 Whakatu
		GLN0332 Glenbrook (A)	MST0331 Masterton
		STK0331 Stoke	SWN0251 Southdown 25 kV
		GOR0331 Gore	
		STU0111 Studholme	
Generator	Point of service that connects generation customers	ARI1101 Arapuni	THI2201 Te Mihi
		OHK2201 Ohakuri	MAN2201 Manapouri
		ATI2201 Atiamuri	TKB2201 Tekapo B
		OKI2201 Ohaaki	MAT1101 Matahina (A)
		AVI2201 Aviemore	TKU2201 Tokaanu
		OTA1101 Otahuhu A 110 kV	MAT1102 Matahina (B)
		BEN2201 Benmore 220 kV	TUI1101 Tuai
		OTA2201 Otahuhu C 220 kV	MTI2201 Maraetai
		COB0661 Cobb	TWC2201 Tararua Windfarm C
		ROT1101 Rotorua 110 kV	NAP2201 Nga Awa Purua
		COL0661 Coleridge	WDV1101 Te Apiti Wind Farm
		ROX1101 Roxburgh 110 kV	NAP2201 Ngatamariki
		CYD2201 Clyde	WHI2201 Whirinaki
		ROX2201 Roxburgh 220 kV	OHA2201 Ohau A
		HLY2201 Huntly	WKM2201 Whakamaru
		RPO2201 Rangipo	OHB2201 Ohau B

Category	Description	Points of connection	
		HWA1102 Hawera (B)	WRK2201 Wairakei
		SFD2201 Stratford	OHC2201 Ohau C
		KAW1101 Kawerau Geo	WTK0111 Waitaki
		SWN2201 Southdown	
		KPO1101 Karapiro	
N-security	Point of service that is served by a single line/tranformer	ABY0111 Albury	TMU0111 Te Awamutu
		NPK0331 National Park	GLN0331 Glenbrook (B)
		APS0111 Arthurs Pass	TRK0111 Tarukenga
		OKN0111 Ohakune (B)	HIN0331 Hinuera
		ARA2201 Aratiatia	TUI0111 Tuai
		OKN0112 Ohakune (A)	HWA0332 Hawera (B)
		ARG1101 Argyle	TWZ0331 Twizel (A)
		ONG0331 Ongarue	KIK0111 Kikiwa
		ATU1101 Atarau	TWZ0332 Twizel (B)
		OTI0111 Otira	KIN0331 Kinleith 33 kV
		BPD1101 Bells Pond	WAI0111 Waiotahi
		PAL0331 Palmerston	KPA1101 Kaponga
		BPT1101 BlackPoint	WHI0111 Whirinaki
		PEN0251 Penrose 25 kV	MCH0111 Murchison
		BRK0331 Brunswick	WPA2201 Waipapa
		PPI2201 Poihipi	MER0331 Meremere
		BWK1101 Berwick	WPR0331 Waipara 33 kV
		TKA0111 Tekapo A	MKE1101 McKee
		CLH0111 Castle Hill	WPW0111 Waipawa 11 kV
		TKA0331 Tekapo A	MPI0661 Motupipi
		COL0111 Coleridge	WVY0111 Waverley
		TKH0111 Te Kaha	MTR0331 Mataroa
		CUL0661 Culverden	WWD1101 West Wind

Schedule G: Quality standards - selected circuits for HVAC availability measure

Circuits	
Clyde-Cromwell-Twizel 1 and 2	Atiamuri-Whakamaru 1
Ohakuri-Wairakei 1	Invercargill- Manapouri 2
Manapouri-North Makarewa 1,2 and 3	Te Mihi-Wairakei 1
Te Mihi-Whakamaru 1	Tekapo B-Twizel 1
North Makarewa-Tiwai 1 and 2	Pakuranga-Whakamaru 1 and 2
Bunnythorpe-Tokaanu 1 and 2	Islington-Tekapo B 1
Clyde-Roxburgh 1 and 2	Ohau B-Twizel 3
Rangipo-Tangiwai 1	Ohau C-Twizel 4
Ashburton-Timaru-Twizel 1 and 2	Ashburton-Islington 1
Brownhill-Whakamaru 1 and 2	Islington-Livingstone 1
Brownhill-Pakuranga 1 and 2	

Schedule H: Pass-through costs and recoverable costs summary

Item	**Formula**	**Description**
[Column 1]	[Column 2]	[Column 3]
Local authority rates	A	Rates payable to a local authority on system fixed assets
Commerce Act levies	B	Levies payable to the **Commerce Commission**
Electricity Authority levies	C	Levies payable to the **Electricity Authority**
Total **pass through costs**	**D = A + B+ C**	Sum of **pass-through costs** for the **disclosure year**
IRIS **recoverable costs**	E	Net **recoverable costs** under the incremental rolling incentive scheme
Instantaneous reserves availability charge	F	Instantaneous reserves availability charges in accordance with clause 3.13(1)(b) of the **Transpower IM**
Transmission alternative operating costs	G	Transmission alternative operating costs relating to a **non-transmission solution**
Operating costs incurred as part of a major project	**H**	The amount of **recoverable costs** as described by Transpower in accordance with clause 19.1.15(c) of this determination
Net additional operating costs incurred in responding to a catastrophic event	**I**	The amount of **recoverable costs** as described by **Transpower** in accordance with clause 19.1.15(d) of this determination
Total **recoverable costs**	**J = E + F + G + H + I**	Sum of **recoverable costs** for the **disclosure year**
Total **pass-through costs** and **recoverable costs**	**K = D + J**	Sum of total **pass-through costs** and **recoverable costs** for the **disclosure year**
Forecast **pass-through costs** and **recoverable costs** recovered in **transmission revenue**	L	Forecast **pass-through costs** and **recoverable costs** for the **disclosure year** used for charging under the **TPM**, excluding any wash-up of **pass-through costs** and **recoverable costs** for a previous **disclosure year**
Wash-up on **pass-through costs** and **recoverable costs**	**M = I - L**	Wash-up on **pass-through costs** and **recoverable costs**

Schedule I: Base capex allowance summary

Disclosure year ending	Value of base capex allowance as determined 31 August 2014	Incremental approved listed project base capex determined not later than 30 November 2015	Incremental approved listed project base capex determined not later than 30 November 2016	Incremental approved listed project base capex determined not later than 30 November 2017	Incremental approved listed project base capex determined not later than 30 November 2018	Total base capex allowance for purposes of forecast MAR and base capex expenditure adjustments in the disclosure year
[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]	[Column 6]	[Column 7]
30 June 2016	$XXX.X million	N/A	N/A	N/A	N/A	$XXX.X million
30 June 2017	$XXX.X million	$XX.X million	N/A	N/A	N/A	$XXX.X million
30 June 2018	$XXX.X million	$XX.X million	$XX.X million	N/A	N/A	$XXX.X million
30 June 2019	$XXX.X million	$XX.X million	$XX.X million	$XX.X million	N/A	$XXX.X million
30 June 2020	$XXX.X million	$XX.X million	$XX.X million	$XX.X million	$XX.X million	$XXX.X million

Schedule J: Listed projects

Line Name (Section)	Estimated Cost	
	RCP2 Cost ($m)	Project Total Cost RCP2 and later ($m)
BPE-WIL A (WIL-JFD section)	49	49
OTB-HAY A (Churton Park Section 45A-68)	28	28
CPK-WIL B (Full)	26	26
BRK-SFD B (Full)	11	65
BPE-WIL A (BPE-JFD section)	4	107
Total estimated cost	118	275

Schedule K: Directors' certificate – pricing compliance statement

We, [insert full name of first director] and [insert full name of second director], being directors of Transpower New Zealand Limited, certify that, having made all reasonable enquiries, to the best of our knowledge and belief, the attached summary of forecast total revenues applied in the Transpower transmission pricing methodology under the Electricity Industry Participation Code for the pricing year commencing [insert pricing year] complies with the requirements of the Transpower Individual Price-Quality Path Determination 2015 *[except in the following respects].

*[insert description of non-compliance if applicable]

[Signatures of directors]
[Date]

*Delete if inapplicable.

Schedule L: Directors' certificate – annual compliance statement

We, [insert full name of first director] and [insert full name of second director], being directors of Transpower New Zealand Limited, certify that, having made all reasonable enquiries, to the best of our knowledge and belief, the Annual Compliance Statement (and associated information) for the period [insert disclosure year] and dated [insert date] complies with the requirements of the Transpower Individual Price-Quality Path Determination 2015 *[except in the following respects].

*[insert description of non-compliance if applicable]

[Signatures of directors]
[Date]

*Delete if inapplicable.

Schedule M: Glossary

[TO BE INSERTED IN FINAL DETERMINATION]

Schedule N: Explanatory note

[TO BE INSERTED IN FINAL DETERMINATION]