



Transpower Capital Expenditure Input Methodology Determination

Input methodologies determination applicable to Transpower pursuant to Part 4 of the Commerce Act 1986 (the Act).

Date of Original Determination: 31 January 2012

Consolidating all amendments as of [Amendment Date] (a history of this determination, including all amendments, may be found over page)

Regulation Branch, Commerce Commission

Wellington, NEW ZEALAND

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TRANSPOWER CAPITAL EXPENDITURE INPUT METHODOLOGY DETERMINATION

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Pursuant to s 54S 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 Capital Expenditure Input Methodologies Determination.

1.1.2 Application

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

1.1.3 Commencement

- (1) This determination comes into force on the day after the date on which notice of it is given in the New Zealand Gazette under s 52W of the **Act**.
- (2) For the avoidance of doubt-
 - (a) any application by **Transpower** for approval or amendment to an approval of a **major capex project** received after this determination comes into force will be decided in accordance with the **input methodologies** in this determination; and
 - (b) any application by **Transpower** for approval of a **major capex project**-
 - (i) made to the **Commission** in accordance with s 54R(3)(b) of the **Act** prior to this determination coming into force; and
 - (ii) in respect of which a decision as to its approval has not been made by the **Commission** at that time,will be decided in accordance with s 54R(3)(b) of the **Act** notwithstanding that this determination is in force.

1.1.4 Transitional provisions

- (1) A **major capex project** approved by-
 - (a) the Electricity Commission under Part F of the Electricity Governance Rules 2003; or
 - (b) the **Commission** in accordance with s 54R(3)(b) of the **Act**,will be treated for the purposes of this determination as a **major capex project** that has been approved by the **Commission** under clause 3.3.3.
- (2) Where subclause (1) applies, in treating the approval by the Electricity Commission or the **Commission** in question as an approval under subclause 3.3.3-
 - (a) the quantum of approved **major capex** is-
 - (i) the **major capex allowance**; or
 - (ii) **maximum recoverable costs**;

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

- (b) any date specified as part of the approval as that on which the approval expires is the **approval expiry date**;
- (c) the quantum of any required outputs or deliverables are **approved major capex project outputs**;
- (d) any forecast cost adopted as part of approving the **major capex project** where the probability of the actual costs being lower than the forecast is 50% is the **P50**;
- (e) any forecast **commissioning date** of the **major capex project** adopted as part of approving the **major capex project** is the **commissioning date assumption**;
- (f) any forecast **completion date** in respect of a **non-transmission solution** adopted as part of approving the **major capex project** is the **completion date assumption**; and
- (g) any specification of the attribution of **major capex** in respect of a **non-transmission solution** as **recoverable costs** to one or more **disclosure years** is the **recovery scheme**.

(3) A reference to-

- (a) **regulatory period** in Part 2 does not include **RCP1**; and
- (b) **disclosure year** in-
 - (i) Part 3 Subpart 1; or
 - (ii) clause 3.2.3,

does not include a **disclosure year** commencing in **RCP1**.

(4) The obligations of **Transpower** specified in clauses 3.2.1 and 3.2.2 do not apply to any **base capex project** or **base capex programme** in respect of **RCP1**.

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1.1.5 Interpretation

(1) In this determination-

- (a) unless stated otherwise, references to Parts are to named and numbered parts of the determination;
- (b) references to Subparts are to subparts within the same part in which the reference is made;
- (c) unless the context otherwise requires, a word which denotes the singular also denotes the plural and vice versa; and
- (d) unless stated otherwise, any reference to an allowance, amount, cost, rate, sum or value is a reference to an allowance, amount, cost, rate, sum or value calculated in relation to **Transpower** in respect of a **disclosure year**.

- (2) In this determination, including in the schedules, the words or phrases in bold type bear the following meanings:

A

Act means the Commerce Act 1986;

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

adjusted base capex allowance means **base capex allowance** adjusted to take account of any disparity between-

- (a) **forecast CPI** and **actual CPI**; and
- (b) **forecast FX rates** and **actual FX rates**,

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

adjusted major capex allowance means **major capex allowance** adjusted to take account of-

- (a) any disparity between-
 - (i) **forecast CPI** and **actual CPI**; and
 - (ii) **forecast FX rates** and **actual FX rates**; and
- (b) other amounts which do not apply in respect of the calculation of the **major capex overspend adjustment**,

and its quantum is calculated in accordance with clause B4(4);

ancillary service has the same meaning as 'ancillary service' is defined in the **code**;

approval expiry date means date on which the approval given by the **Commission** in respect of a **major capex project** under clause 3.3.3 expires;

approval timeframes means timeframes for the **Commission** to approve or amend an approval for a **major capex project**;

approved major capex project outputs means the **grid outputs** applying in respect of a **proposed investment** approved by the **Commission** under clause 3.3.3;

asset capability grid output measure means measure that-

- (a) quantifies the capability or utilisation of the **grid**, whether at the level of-
 - (i) individual assets;
 - (ii) an aggregation of assets, such as by substation; or
 - (iii) the **grid**; and

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- (b) reflects the output or benefit (where 'benefit' may include a reduction in risk) delivered by investment in additional capacity to **supply electricity transmission services**;

asset health grid output measure means measure that-

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

asset performance measure means measure that quantifies the performance, reliability or availability of the **grid**, whether at the level of-

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

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

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

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

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

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

B

base capex means **capital expenditure** (excluding a **non-transmission solution**) that-

- (a) is incurred in relation to one or more of the following things:
 - (i) **asset replacement**;

- (ii) **asset refurbishment;**
 - (iii) **business support;** and
 - (iv) **information system and technology assets;** or
- (b) is not forecast to be included in a-
- (i) **project** whose aggregate forecast **capital expenditure** exceeds the **base capex project threshold;** and
 - (ii) **programme** whose aggregate forecast **capital expenditure** exceeds the **base capex programme threshold;**

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

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

base capex expenditure adjustment means monetary amount of after-tax economic gain or loss to take account of deviation by **Transpower** in **base capex** for a **disclosure year** with respect to the **adjusted base capex allowance** for that **disclosure year;**

base capex incentive rate means the percentage that **Transpower** may recover or must bear, as the case may be, of the difference between **base capex** for a **disclosure year** and the **adjusted base capex allowance** for that **disclosure year;**

base capex programme threshold means, where the last asset delivered by a **programme** has a forecast **commissioning date** in-

- (a) the **transition year**, a threshold for the **programme** of \$5 million;
- (b) the **remainder period**, a threshold for the **programme** of \$5 million; and
- (c) any period other than **RCP1**, a threshold for the **programme** of \$20 million;

base capex project threshold means, where the last asset delivered by a **project** has a forecast **commissioning date** in-

- (a) the **transition year**, a threshold for the **project** of \$1.5 million;
- (b) the **remainder period**, a threshold for the **project** of \$5 million; and
- (c) any period other than **RCP1**, a threshold for the **project** of \$20 million;

base capex proposal means information submitted by **Transpower** to the **Commission** for the purpose of the **Commission** determining the things specified in clause 2.2.2(1);

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

- (d) **information system and technology assets;**
- (e) office buildings;

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- (f) depots and workshops;
- (g) office furniture and equipment;
- (h) motor vehicles; or
- (i) tools, plant and machinery;

C

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

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

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

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

capital expenditure means costs that-

- (a) have been or will be included in a **value of commissioned asset**, but only to the extent that the costs have been or will be included in a **closing RAB value**;
or
- (b) are a **non-transmission solution**;

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

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

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

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

commissioned has the same meaning as defined in the Commerce Act (Transpower Input Methodologies) Determination 2010;

commissioning date means date the asset is first **commissioned**;

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

committed project has meaning specified in clause D9;

competition effects has the meaning specified in clause D6;

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

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

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

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

CPI means-

- (a) subject to paragraph (c), in respect of the December 2010 quarter and subsequent quarters, the consumer price index stipulated in the 'All Groups Index SE9A' as published by Statistics New Zealand;
- (b) subject to paragraph (c), in respect of each quarter prior to the December 2010 quarter, the same index as described in paragraph (a) multiplied by 1.02; and
- (c) in respect of quarters prior to any quarter in which the rate of **GST** is amended after this determination comes into force, the same index as described in paragraph (a), multiplied by the Reserve Bank of New Zealand's forecast change in that index (expressed as a decimal) arising from the amendment;

D

decommissioned asset has the meaning specified in clause D9;

demand and generation scenario has the meaning specified in clause D4;

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director means individual occupying the position of director in the company, by whatever name that position is called;

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disclosure year means 12 month period ending on 30 June;

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

discount rate has the meaning specified in clause D7(3);

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

E

electricity market benefit or cost element has the meaning specified in clause D5(1);

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

existing asset has the meaning specified in clause D9;

expected net electricity market benefit has the meaning specified in clause D3(1);

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F

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

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

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

Deleted: in respect of later quarters, a constant annual percent change equal to the arithmetic average of the values forecast in the most recent four quarters in respect of which a forecast described in paragraph (a) has been made;

G

generator has the same meaning as defined in the **code**;

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

grid has the same meaning as specified in the **code**;

grid exit point has the same meaning as specified in the **code**;

grid output means quantum of output in respect of a particular **grid output measure**;

grid output adjustment means monetary amount of after-tax economic gain or loss to take account of deviation by **Transpower** from its **grid output targets**;

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

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

grid output measure means measure that quantifies the output or benefit (where 'benefit' may include reduction in risk) delivered by the **grid** or investment in the **grid**;

grid output mechanism means formula by which the **grid output adjustment** is calculated, as specified in the table in clause B3(1);

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

grid reliability standards means the grid reliability standards as specified in Schedule 12.2 to the **code**;

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

I

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

identified programmes has the meaning specified in clause F2;

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

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

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

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

investment need means need for **grid** re-enforcement, **grid** investment or a **non-transmission solution**;

investment option has the meaning specified in clause D2;

investment test means test specified in Schedule D Division 1;

IPP means individual price-quality path;

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

ITP narrative means high level description, that includes the information specified in clause E2, of **Transpower's** forecast expenditure and outputs.

ITP supporting documents means **documents** specified in clause E3.

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K

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

M

major capex means **capital expenditure** that-

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

major capex allowance means amount of **major capex** approved by the **Commission** in relation to a **major capex project** with respect to one or more **closing RAB values**;

major capex efficiencies means monetary amount equivalent to **Transpower's** total net cost efficiencies during the **regulatory period** in question reflected in its **major capex** for **major capex projects commissioned** during that period;

major capex efficiency adjustment means monetary amount of after-tax economic gain to take account of **major capex efficiencies**;

major capex incentive rate means, in respect of a **regulatory period**, percentage of the **major capex efficiencies** recoverable by **Transpower**;

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

major capex project means a **project** of **major capex**-

- (a) undertaken to address a specific **investment need**;
- (b) that is either or both of the following things:
 - (i) a **transmission investment**, including a variant on another **transmission investment** by virtue of a non-negligible change in the **commissioning date assumption**; or
 - (ii) a **non-transmission solution**, including a variant on another **non-transmission solution** by virtue of a non-negligible change in the **completion date assumption**.

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

major capex project outputs means the **grid outputs** applying in respect of an **investment option** contained in a **major capex proposal**;

major capex proposal means **document** prepared by **Transpower** for the **Commission** that identifies a **proposed investment** for which **Commission** approval is sought;

major capex sunk costs adjustment means monetary amount of after-tax economic gain to take account of costs arising for **Transpower** in respect of an approved **major capex project** which **Transpower** has decided not to proceed with or in respect of which the **approval expiry date** has passed;

market development scenario means scenario described in clause D4(1)(a)(i);

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

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

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

MED scenario means scenario described in clause D4(1)(b);

MED scenario variation means scenario described in clause D4(1)(c);

modelled project has the meaning specified in clause D9;

N

net electricity market benefit has the meaning specified in clause D3(2);

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

- (a) the other person has agreed in writing (whether in the same contract or not) that the terms and conditions of the contract-
 - (i) are reasonable; or
 - (ii) reflect workable or effective competition for the provision of the **electricity transmission services**; or
- (b) **Transpower** demonstrates beyond a reasonable doubt that the terms and conditions of the contract were arrived at following a process that provided opportunities for-
 - (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**;

non-transmission solution means costs incurred by **Transpower-**

- (a) in relation to one or more of the following things:
 - (i) electricity generation;
 - (ii) energy efficiency;
 - (iii) demand-side management;
 - (iv) local network augmentation;
 - (v) improvement to the systems and processes of the **system operator**; and
 - (vi) the provision of **ancillary services**; and
- (b) on a **project** that avoids or defers a **transmission investment** where the **transmission investment** would-
 - (i) be **major capex**; and
 - (ii) satisfy the **investment test** if the relevant **investment options** consisted solely of those that are **transmission investments**;

O

operating cost has the same meaning as defined in the Commerce Act (Transpower Input Methodologies) Determination 2010;

operating expenditure has the same meaning as defined in the Commerce Act (Transpower Input Methodologies) Determination 2010;

opex proposal means **Transpower's** written response to an **ID determination** or a notice issued by the **Commission** under s53ZD of the **Act** requiring information on proposed **operating expenditure** in respect of the next **regulatory period**;

P

P50 means estimated cost of a **project** where the probability of the actual cost being lower than that estimated is 50%;

performance-based measure means **asset performance measure** or **measure of grid performance**;

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

- (a) asset management;
- (b) asset security;
- (c) augmentation and planning;
- (d) business cases, including cost-benefit analyses;
- (e) **capital expenditure** (e.g. **capital expenditure** approval and replacement);

- (f) condition monitoring and replacement;
- (g) corporate governance;
- (h) demand management;
- (i) disaster recovery;
- (j) energy supply and **consumer** growth forecasting;
- (k) information technology;
- (l) internal reviews;
- (m) investment decision making and evaluation;
- (n) land and easement acquisition;
- (o) network spares;
- (p) prioritisation and options analysis;
- (q) procurement;
- (r) project management;
- (s) regulatory compliance;
- (t) risk management and assessment;
- (u) self insurance; or
- (v) site and line safety;

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

- (a) involving forecast **capital expenditure** of greater than \$20 million in respect of which the requirements of clause 3.2.1 were not met in all material respects; or
- (b) in respect of which **Transpower** has acted otherwise than in accordance with **policies** or processes specified in clause 3.2.2 except to the extent that the **Commission** is satisfied that it was appropriate for the relevant **policies** or processes not to have been followed for the **project** or **programme**;

programme means-

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

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

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

project cost has the meaning specified in clause D5(2), and its quantum is calculated in accordance with clause D7(1);

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proposed investment means **major capex project** that **Transpower** seeks to have approved in terms of subclause 3.3.2(1);

R

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

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

recoverable cost has the same meaning as defined in the Commerce Act (Transpower Input Methodologies) Determination 2010;

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

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

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

relevant demand and generation scenarios has the meaning specified in clause D4(3);

remainder period means period from **disclosure year** 2013 to **disclosure year** 2015 inclusive;

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

S

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

sensitivity analysis has the meaning specified in clause D8;

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

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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

transition year means **disclosure year** 2012;

transmission investment means investment in the **grid**;

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

V

value of commissioned asset has the same meaning as defined in the Commerce Act (Transpower Input Methodologies) Determination 2010;

value of expected unserved energy means-

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

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

W

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

PART 2 PROCESSES PRIOR TO A REGULATORY PERIOD

SUBPART 1 Integrated transmission plan

2.1.1 Integrated transmission plan

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

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SUBPART 2 Base capex

2.2.1 Required information

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

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2.2.2 Commission evaluation and decisions

- (1) No later than the last **working day** in the August of the year before the start of a **regulatory period**, the **Commission** will, subject to subclause (4), determine in respect of that **regulatory period**,-
 - (a) a **base capex allowance** for each **disclosure year** of the **regulatory period**;
 - (b) the quantum of the **base capex incentive rate** to apply;
 - (c) in accordance with clauses A4 and A5, the following **revenue-linked grid output measures**:
 - (i) one or more **asset performance measure**;
 - (ii) one or more **measure of grid performance**;

- (iii) at **Transpower's** request, one or more **asset capability grid output measure**;
 - (iv) at **Transpower's** request, one or more **asset health grid output measure**; and
 - (v) at **Transpower's** request, any other **grid output measure**;
 - (d) in accordance with clause A6, in respect of each **revenue-linked grid output measure**, a-
 - (i) **cap**;
 - (ii) **collar**;
 - (iii) **grid output incentive rate**; and
 - (iv) **grid output target**; and
 - (e) in accordance with clause A4, none, one or more of each of the following **grid output measures** to which the **grid output mechanism** will not apply:
 - (i) **performance-based measures**;
 - (ii) **asset capability grid output measures**; and
 - (iii) **asset health grid output measures**.
- (2) In its decision specifying the matters specified in subclause (1), the **Commission** will also specify-
 - (a) **forecast CPI** used to determine the **base capex allowances**;
 - (b) **forecast FX rates** used to determine the **base capex allowances**; and
 - (c) amount or percentage of the **base capex allowances** to which the **forecast FX rates** may apply.
- (3) Where the **Commission** considers that, for the purpose of deciding the matters specified in this clause, it requires further information of **Transpower**, the **Commission** will request provision by **Transpower** of such information by a date specified by the **Commission** such that it is reasonable for **Transpower** to comply with.
- (4) For the purpose of subclause (1), the **Commission** will only determine the things specified in that subclause after-
 - (a) consulting in any manner specified in clause 8.1.1; and
 - (b) evaluating in accordance with Part 6,-
 - (i) the **base capex proposal**; and
 - (ii) any further information received pursuant to subclause (3).
- (5) The **Commission** will publish its decisions under this clause as soon as reasonably practicable.

SUBPART 3 **Major capex**

2.3.1 Major capex incentive rate

- (1) The **major capex incentive rate** in respect of **RCP1** is specified in the **IPP determination** applying to **RCP1**.
- (2) The **Commission** will, by the last **working day** in the August before the start of a **regulatory period** which is not **RCP1** determine the quantum of the **major capex incentive rate** to apply to that **regulatory period**.
- (3) The **Commission** will publish its determination as soon as reasonably practicable.

PART 3 PROCESSES DURING A REGULATORY PERIOD

SUBPART 1 Integrated transmission plan

3.1.1 Integrated transmission plan

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

SUBPART 2 Base capex

3.2.1 Base capex projects or programmes forecast to cost more than \$20 million

In respect of a **base capex project** or **base capex programme** involving forecast **capital expenditure** of greater than \$20 million **Transpower** must, prior to undertaking the **project** or **programme**, undertake-

- (a) a cost-benefit analysis consistent with determining **expected net electricity market benefit**; and
- (b) consultation with interested persons in accordance with clause 8.1.2.

3.2.2 Base capex projects or programmes - application of policies and processes

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

3.2.3 Base capex annual adjustments

- (1) By the last working day of the first November after a **disclosure year**, subject to subclauses (2) and (3), the **Commission** will calculate for that **disclosure year** a-
 - (a) **base capex expenditure adjustment** in accordance with clause B1;
 - (b) **policies and processes adjustment** in accordance with clause B2, subject to subclause (4); and
 - (c) **grid output adjustment** in accordance with clause B3.

- (2) Where the **Commission** considers that it requires further information of **Transpower** for the purpose of calculating the things specified in subclause (1), the **Commission** will request provision by **Transpower** of such information by a date specified by the **Commission** such that it is reasonable for **Transpower** to comply with.
- (3) For the purpose of subclause (1) the Commission will not calculate the items specified in that subclause until after having evaluated relevant information disclosed pursuant to:
 - (a) a request made pursuant to subclause (2):
 - (b) an **ID determination**:
 - (c) a notice made under s53ZD of the **Act**.
- (4) For the purpose of subclause (1)(b), where in respect of the same **project** or **programme** **Transpower** has not complied with both clause 3.2.1 and clause 3.2.2, the **Commission** will disregard one of those instances of non-compliance for the purpose of calculating the **policies and processes adjustment** in accordance with clause B2.
- (5) The **Commission** will publish its decision of the matters referred to in subclause (1) as soon as reasonably practicable.

SUBPART 3 Major capex projects

3.3.1 Consultation programme and approval timeframes

- (1) **Transpower** must notify the **Commission** of its intention to plan a **major capex project** that **Transpower** considers may become a **proposed investment**.
- (2) In the two month period following such notification, the **Commission** and **Transpower** must use reasonable endeavours to agree, in respect of that **major capex project**-
 - (a) in accordance with clause 8.1.3-
 - (i) a consultation programme for a **transmission investment** or **non-transmission solution**; and
 - (ii) an approach to ensure appropriate consideration of **non-transmission solutions** to meet the **investment need**; and
 - (b) **approval timeframes**.
- (3) For the purpose of assisting interested persons, the **Commission** may include in the consultation programme referred to in subclause (2)(a)(i) such consultation processes that the **Commission** intends to follow, but **Transpower** is not required to agree such processes.
- (4) Where no agreement is made on one or more of the things referred to in subclause (2), the **Commission** will, by one week after the end of the period referred to in subclause (2), having regard to the views expressed by **Transpower** during that period, specify whichever of the following has not been agreed:

- (a) a consultation programme in respect of a **transmission investment** or **non-transmission solution**, in accordance with clause 8.1.3;
 - (b) an approach to ensure appropriate consideration of **non-transmission solutions** to meet the **investment need**, in accordance with clause 8.1.3; and
 - (c) **approval timeframes**.
- (5) The **Commission** will and **Transpower** must publish the-
- (a) consultation programme;
 - (b) approach for consideration of **non-transmission solutions**; and
 - (c) **approval timeframes**,
- as soon as reasonably practicable.
- (6) The **Commission** and **Transpower** must-
- (a) regularly review the published-
 - (i) consultation programme; and
 - (ii) approach for consideration of **non-transmission solutions**; and
 - (iii) **approval timeframes**,
 as to whether they remain appropriate and reasonable; and
 - (b) the **Commission** may amend one or more of those things to ensure that they remain appropriate and reasonable.
- (7) **Transpower** must consult interested persons in accordance with the consultation programme and follow the approach for consideration of **non-transmission solutions**.

3.3.2 Major capex proposals

- (1) A **major capex project** must be approved by the **Commission** in order that **Transpower** can recover the **capital expenditure** relating to that **major capex project** under an **IPP**.
- (2) **Transpower** must submit a **major capex proposal** to the **Commission** in respect of a **proposed investment**.
- (3) **Transpower** may submit a **major capex proposal** at any time during a **regulatory period**.

3.3.3 Commission evaluation and approvals

- (1) The **Commission** will decide, with respect to a **major capex proposal**, to either-
 - (a) approve the **proposed investment**; or
 - (b) reject the **major capex proposal**.
- (2) Where the **Commission** considers that for the purpose of deciding whether to approve a **proposed investment** it requires further information of **Transpower** than that provided in the **major capex proposal**, the **Commission** will request provision by **Transpower** of

such information by a date specified by the **Commission** such that it is reasonable for **Transpower** to comply with.

- (3) The **Commission** may only decide to approve the **proposed investment** after-
- (a) consulting in any manner specified in clause 8.1.1; and
 - (b) having evaluated, in accordance with Part 6,-
 - (i) the **major capex proposal**; and
 - (ii) any further information received pursuant to subclause (2).
- (4) The **Commission** may reject the **major capex proposal** where-
- (a) **Transpower** has not complied with the requirements specified in clause 3.3.1; or
 - (b) that proposal does not comply with clause 7.4.1.
- (5) Where a **proposed investment** is approved by the **Commission** the-
- (a) **major capex allowance**;
 - (b) **maximum recoverable costs**;
 - (c) **recovery scheme**;
 - (d) **approved major capex project outputs**;
 - (e) **approval expiry date**;
 - (f) **P50**;
 - (g) **commissioning date assumption**; and
 - (h) **completion date assumption**,

applying in respect of the approval are those specified by **Transpower** in the relevant **major capex proposal** as applicable to the **transmission investment** or **non-transmission solution**.

- (6) The **Commission** will publish its decision under subclause (1) as soon as reasonably practicable.

3.3.4 Amendments to approved investments

- (1) At **Transpower's** application, the **Commission** may, subject to subclauses (2) and (3), decide to amend one or more of the following components of a **major capex project** approved under clause 3.3.3:
- (a) **major capex allowance**;
 - (b) **maximum recoverable costs**;
 - (c) **recovery scheme**;
 - (d) **approved major capex project outputs**; and

- (e) **approval expiry date.**
- (2) Where **Transpower** makes an application under subclause (1)-
- (a) **Transpower** must comply with the requirements in clause 7.4.2;
 - (b) the **Commission** and **Transpower** must use reasonable endeavours to agree **approval timeframes** in respect of the application, and where no agreement is made by two weeks from the date of receipt of the application then the **Commission** will, having regard to the views expressed by **Transpower** during that two week period, specify the **approval timeframes**; and
 - (c) the **Commission** will not make an amendment under subclause (1) until after having evaluated, in accordance with Part 6,-
 - (i) the application; and
 - (ii) any information received pursuant to subclause (6).
- (3) For the purpose of subclause (1), an amendment may be made by the **Commission** to-
- (a) an **approval expiry date**, by no later than the **approval expiry date** previously approved; and
 - (b) any other thing specified in subclause (1), subject to subclause (8), by no later than the last **working day** of the first November after the **disclosure year** in which the **commissioning date** or **completion date** occurs.
- (4) Where an amendment is made by the **Commission**, to the extent relevant to the application in question, the amended-
- (a) **major capex allowance**;
 - (b) **maximum recoverable costs**; and
 - (c) **recovery scheme**;
- are those specified by the **Commission**, and the amended-
- (d) **approved major capex project outputs**; and
 - (e) **approval expiry date**,
- are those proposed by **Transpower** in the relevant application.
- (5) Where the **Commission** makes an amendment under subclause (1), the **Commission** may also make commensurate amendments to any of the-
- (a) **P50**;
 - (b) **commissioning date assumption**; and
 - (c) **completion date assumption**.
- (6) Where the **Commission** considers that, for the purpose of deciding whether to amend one or more components of a **major capex project**, it requires of **Transpower** further information than that provided in its application, the **Commission** may request

Transpower to provide such information by a date specified by the **Commission** such that it is reasonable for **Transpower** to comply with.

- (7) The **Commission** will publish its decision under subclause (1) as soon as reasonably practicable.
- (8) For the purpose of subclause (3)(b), the **Commission**, at the request of **Transpower**, may extend the relevant timeframe for making an amendment where the **Commission** is satisfied that not all of the information relevant to an amendment is, or will be, available within the timeframe specified in subclause (3)(b).

3.3.5 Major capex sunk costs adjustment

- (1) At **Transpower's** application, where **Transpower** has incurred **capital expenditure** in relation to an approved **major capex project**, but prior to the **commissioning date** or **completion date**-
 - (a) **Transpower** has decided not to proceed with the investment; or
 - (b) the **approval expiry date** has passed,the **Commission** may, at its discretion, decide to calculate a **major capex sunk costs adjustment** in accordance with clause B6.
- (2) For the purpose of subclause (1)-
 - (a) **Transpower** must comply with the requirements in clause 7.4.3; and
 - (b) the **Commission** will not exercise its discretion pursuant to subclause (1) until after having evaluated, in accordance with Part 6-
 - (i) the application; and
 - (ii) any information received pursuant to subclause (3).
- (3) Where the **Commission** considers that, for the purpose of exercising its discretion pursuant to subclause (1), it requires of **Transpower** further information than that provided in the application, the **Commission** will request provision by **Transpower** of such information by a date specified by the **Commission** such that it is reasonable for **Transpower** to comply with.
- (4) Where the **Commission** calculates a **major capex sunk costs adjustment** pursuant to subclause (1), any approval for the **major capex project** is treated as revoked.
- (5) The **Commission** will publish its decision under subclause (1) as soon as reasonably practicable.

3.3.6 Decision on approved major capex project outputs after commissioning or completion

- (1) The **Commission** will decide, subject to subclause (2), by the last **working day** of the first November after each **disclosure year** whether **approved major capex project outputs** were met in respect of each approved **major capex project** having a **commissioning date** or **completion date** in that **disclosure year**.

- (2) For the purpose of subclause (1), the **Commission** will not make any decision required by that subclause until after having evaluated, to the extent relevant to the decision-
- (a) the information disclosed by **Transpower** in respect of the last completed **disclosure year** pursuant to either or both of-
 - (i) an **ID determination**; or
 - (ii) a notice made under s53ZD of the **Act**; and
 - (b) any application received under clause 3.3.4.
- (3) The **Commission** will publish its decisions under subclause (1) as soon as reasonably practicable.

3.3.7 Overspend and output adjustments

- (1) The **Commission** will calculate, by the last **working day** of the first November after each **disclosure year**, subject to subclause (3), the quantum of the **major capex overspend adjustment** in accordance with clause **B4** in respect of assets which are-
- (a) included in a **major capex project** where the last asset delivered by the **project** has a **commissioning date** in that **disclosure year**;
 - (b) not referred to in paragraph (a) and having a **commissioning date** in that **disclosure year**.
- (2) The **Commission** will calculate, by the last **working day** of the first November after each **disclosure year**, subject to subclauses (3) and (4), the quantum of the **major capex project output adjustment** in accordance with clause B5 in respect of each **major capex project** where, to the extent the **project** is a-
- (a) **transmission investment**, the last asset delivered by the **project** has a **commissioning date** in that **disclosure year**; or
 - (b) **non-transmission solution**, it has a **completion date** in that **disclosure year**;

and

for which an approval under clause 3.3.3 applies at the **commissioning date** or **completion date** referred to in paragraph (a) or (b) respectively.

- (3) For the purposes of subclauses (1) and (2), the **Commission** will not make the calculations referred to in those subclauses until after having evaluated-
- (a) the information relevant to the calculations disclosed by **Transpower** in respect of the last completed **disclosure year** pursuant to either or both of-
 - (i) an **ID determination**; or
 - (ii) a notice made under s53ZD of the **Act**; and
 - (b) any application relevant to the calculations received under clause 3.3.4; and
 - (c) any material received pursuant to subclause (5).

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- (4) For the purpose of subclause (2), the **Commission** will not make the calculation referred to in subclause (2) until after having made a decision under clause 3.3.6.
- (5) Where the **Commission** considers that, for the purpose of making any of the calculations referred to in subclauses (1) and (2), it requires of **Transpower** further information than referred to in subclauses (3)(a) and (3)(b), the **Commission** will request **Transpower** to provide such information by a date specified by the **Commission** such that it is reasonable for **Transpower** to comply with.
- (6) The **Commission** will publish its decisions under this clause as soon as reasonably practicable.

PART 4 PROCESSES FOLLOWING A REGULATORY PERIOD

4.1.1 Major capex – efficiency adjustment after regulatory period

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

PART 5 CONSEQUENCES OF COMMISSION NOT COMPLYING WITH TIMEFRAMES

5.1.1 Consequences of timeframes not being met by Commission

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

PART 6 COMMISSION EVALUATION OF MATTERS RELATING TO CAPITAL EXPENDITURE

6.1.1 Evaluation criteria

- (1) In evaluating anything pursuant to this Part, the **Commission** may-
- (a) take into account-
 - (i) the views of any person the **Commission** has consulted pursuant to clause 8.1.1; and
 - (ii) any other information it considers relevant; and
 - (b) engage any appropriately qualified person to assist the **Commission** with its evaluation.
- (2) The **Commission** will apply the following criteria in evaluating **base capex proposals**, **major capex proposals** and applications under clause 3.3.4:
- (a) whether what is proposed is consistent with the **input methodologies** in this determination and, where relevant, the Commerce Act (Transpower Input Methodologies) Determination 2010;
 - (b) the extent to which what is proposed will promote the purpose of Part 4 of the **Act**; and
 - (c) whether, the data, analysis, and assumptions underpinning what is proposed are fit for the purpose of the **Commission** exercising its powers under Part 4 of the **Act**, including consideration as to the accuracy and reliability of data and the reasonableness of assumptions and other matters of judgement.
- (3) The **Commission** will also evaluate a **base capex proposal** in accordance with Schedule A.
- (4) The **Commission** will also evaluate a **major capex proposal** in accordance with Schedule C.
- (5) The **Commission** will also evaluate an application under clause 3.3.4 in accordance with the following criteria:
- (a) the extent to which each key factor relevant to the proposed amendment-
 - (i) was reasonably foreseeable by **Transpower** before the **major capex project** was approved by **Commission**; and
 - (ii) was or is within **Transpower's** control;
 - (b) in relation to each key factor outside **Transpower's** control-
 - (i) the reasonableness of any applicable mitigation strategy devised by **Transpower**; and
 - (ii) the reasonableness and extent of mitigation actions taken by **Transpower**;

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- (c) the extent to which the **major capex project's expected net electricity market benefit** would be materially lower as a result of the amendment than when it was approved; and
 - (d) in respect of a **major capex project** that has already commenced, the extent to which **Transpower** has incurred **capital expenditure** by the date of the application
- (6) The **Commission** will also evaluate an application under clause 3.3.5 relating to the calculation of a **major capex sunk costs adjustment** in accordance with the following criteria:
- (a) the reasons and key factors that resulted in **Transpower** applying for the **major capex sunk costs adjustment**;
 - (b) in relation to each such key factor, whether it-
 - (i) was reasonably foreseeable by **Transpower** before the **major capex project** was approved by the **Commission**; and
 - (ii) was or is within **Transpower's** control;
 - (c) in relation to each key factor outside **Transpower's** control, the -
 - (i) reasonableness of any applicable mitigation strategy devised by **Transpower**; and
 - (ii) reasonableness and extent of mitigation actions taken by **Transpower**;
 - (d) the reasonableness of the progress of the **major capex project**, including details of-
 - (i) planning processes undertaken;
 - (ii) resource management consents, other regulatory consents, and property rights and access rights obtained;
 - (iii) construction and labour contracts and arrangements made;
 - (iv) construction completed;
 - (v) testing undertaken; and
 - (vi) **major capex project outputs** delivered; and
 - (e) the reasonableness of the **major capex** incurred and the extent of the forecast **major capex** yet to be incurred.
- (7) The **Commission** will also evaluate **major capex efficiencies** for the purpose of calculating a **major capex efficiency adjustment** by taking into account-
- (a) changes in forecast aggregate **capital expenditure** during the design and build phases of the **major capex project** in question;
 - (b) contractual arrangements, including the reasonableness of provisions relating to the sharing of risk between **Transpower** and its contractors; and

- (c) in relation to a key factor outside **Transpower's** control, the-
 - (i) reasonableness of any applicable mitigation strategy devised by **Transpower**; and
 - (ii) reasonableness and extent of mitigation actions taken by **Transpower**.

PART 7 INFORMATION REQUIREMENTS APPLYING TO TRANSPOWER

SUBPART 1 Requirements applying to all required information

7.1.1 Format of information

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

7.1.2 Information claimed to be confidential

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

7.1.3 Omission of required information

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

SUBPART 2 **Integrated transmission plan**

7.2.1 Integrated transmission plans

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

SUBPART 3 **Base capex**

7.3.1 Base capex proposals

(1) A **base capex proposal** must-

(a) contain completed-

(i) **regulatory templates** agreed pursuant to clause ~~2.2.1(1)~~; or

(ii) **regulatory templates** specified pursuant to clause ~~2.2.1(2)~~;

(b) comply with Schedule F; and

(c) contain the certificates specified in clause 9.1.1.

(2) For the purpose of subclause (1)(a), the **regulatory templates** must specify **base capex categories**.

(3) A requirement of Schedule F may be met by **Transpower** by providing a reference to information published in another **document**, such as the **documents** specified in clauses E3(a) or E3(b), provided that-

(a) the reference clearly and succinctly provides the required information, without the need for additional analysis, explanation or interpretation; and

(b) in respect of each **document** relied upon, an index is provided stating the-

(i) reference to the relevant requirement or requirements of Schedule F; and

(ii) precise reference or references within the **document** relied upon.

(4) For the avoidance of doubt, one physical **document** may contain more than one of the certifications specified in clause 9.1.1.

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SUBPART 4 **Major capex**

7.4.1 Major capex proposals

(1) A **major capex proposal** must-

- (a) comply with Schedule G; and
 - (b) contain the certificates specified in clause 9.2.1.
- (2) The number of **investment options** contained in a **major capex proposal** must be appropriate given the magnitude of the estimated **capital expenditure** and the complexity of the **investment need** associated with the **proposed investment**.
- (3) With respect to each **investment option** described in such a proposal, the-
- (a) specificity of information; and
 - (b) rigour and comprehensiveness of the analysis,
- must be commensurate with the estimated **capital expenditure** and complexity of that option.
- (4) For the avoidance of doubt, one physical **document** may contain more than one of the certifications specified in clause 9.2.1.

7.4.2 Amendment applications

- (1) An application under clauses 3.3.4(1)(a) to 3.3.4(1)(d) must be received by the **Commission** by the last **working day** of the September after the **disclosure year** in which the **project** in question is first **commissioned**.
- (2) An application under clause 3.3.4(1)(e) must be received by the **Commission** no later than 6 weeks before the **approval expiry date**.
- (3) An application under-
- (a) clause 3.3.4(1)(a) must contain the information specified in Schedule H Division 1;
 - (b) clause 3.3.4(1)(b) or 3.3.4(1)(c) must contain the information specified in Schedule H Division 2;
 - (c) clause 3.3.4(1)(d) must contain the information specified in Schedule H Division 3; and
 - (d) clause 3.3.4(1)(e) must contain the information specified in Schedule H Division 4.
- (4) An application under clause 3.3.4 must contain the certificates specified in clause 9.3.1.

7.4.3 Sunk costs applications

- (1) Subject to subclause (2), an application under clause 3.3.5 must-
- (a) be received by the **Commission** no later than 6 weeks after the **approval expiry date**;
 - (b) contain the information specified in Schedule H Division 5; and
 - (c) contain the certificates specified in clause 9.3.1

- (2) For the purpose of subclause (1), the **Commission**, at the request of **Transpower**, may extend the relevant timeframe for making an application where the **Commission** is satisfied that not all of the information relevant for its evaluation of an application is, or will be, available within the timeframe specified in subclause (1).

PART 8 CONSULTATION

8.1.1 Consultation by Commission

- (1) After receiving any **base capex proposal** or **major capex proposal**, the **Commission**:
 - (a) must take all of the actions specified in subclause (3); and
 - (b) may take the actions specified in subclause (4).
- (2) The **Commission** may take none, any or all of the actions listed in subclauses (3) or (4) in evaluating applications received from **Transpower** or making decisions or calculations under:
 - (a) clause 3.3.4;
 - (b) clause 3.3.5;
 - (c) clause 3.3.6;
 - (d) clause 3.3.7; or
 - (e) clause 4.1.1.
- (3) The actions referred to by subclauses (1)(a) and (2) are:
 - (a) publish the relevant proposal or application;
 - (b) make and publish a draft decision or decisions;
 - (c) seek the written views of interested persons on anything so published; and
 - (d) seek the written views of interested persons on others' submissions.
- (4) The actions referred to by subclauses (1)(b) and (2) are:
 - (a) seek the views of any person the **Commission** considers has expertise on a relevant matter; and
 - (b) hold a conference at which the views of some or all interested persons may be sought orally or in other forms of presentation.
- (5) Where the **Commission** takes any of the actions referred to in the subclauses (3) or (4), it may do so in accordance with such timeframes and processes as it considers appropriate.

8.1.2 Base capex projects or programmes forecast to cost more than \$20 million

For the purpose of clause 3.2.1(b), consultation by **Transpower** with interested persons must be-

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

8.1.3 Consultation on major capex projects

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

PART 9 CERTIFICATION

SUBPART 1 Base capex proposals

9.1.1 Director certification – base capex proposals

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

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

SUBPART 2 Major capex proposals

9.2.1 Chief executive officer certification – major capex proposals

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

- (a) the information was derived from and accurately represents, in all material respects, the operations of **Transpower**;
- (b) the **proposed investment** to which the information relates was approved in accordance with the applicable requirements of **Transpower's director** and management approval policies; and
- (c) the **base capex proposal** complies, in all material respects, with the requirements of clause 7.4.1.

SUBPART 3 Major capex project amendment and sunk costs applications

9.3.1 Chief executive officer certification – major capex project amendment and sunk costs applications

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

- (a) an application for amendment of components of a **major capex project** approved by the **Commission** under clause **3.3.3**; or
 - (b) an application for a **major capex sunk costs adjustment**,
- (2) the chief executive officer of **Transpower** must certify in writing, that having made all reasonable enquiries, it is his or her belief that-

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

SUBPART 4 **Changes in opinion or matters of fact**

9.4.1 Changes in opinion or matters of fact

(1) Where-

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

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

(2) Where-

- (a) a **director** or chief executive officer of **Transpower** has made a certification involving a matter of fact in accordance with this Part;
- (b) before the **Commission's** decision in relation to the proposal or application in question, he or she-
 - (i) becomes aware that the fact is untrue; or
 - (ii) has significant cause to doubt the accuracy of that fact; and
- (c) that fact is likely to be material to the **Commission's** evaluation of the proposal or application,

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

SCHEDULE A **BASE CAPEX PROPOSAL - EVALUATION CRITERIA**

cl.2.2.2, 6.1.1(3)

A1 **General evaluation of base capex proposals**

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

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

- (j) the reasonableness of the **key assumptions**, key input data and forecasting methods used in determining demand forecasts;
- (k) the appropriateness of using those demand forecasts and other **key assumptions** in determining the proposed **base capex allowances**;
- (l) the type of efficiency improvements obtained in the current and previous **regulatory periods**; and
- (m) the scope for efficiency improvements during the **regulatory period** in question.

A2 Evaluation of identified programmes

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

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

A3 Evaluation techniques

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

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

A4 Criteria for considering grid output measures

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

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

A5 Criteria for considering revenue-linked grid output measures

In addition to the criteria specified in clause A4, the **Commission** will take into account at least the following criteria in considering **revenue-linked grid output measures**:

- (a) the extent to which a measure is a recognised measure of **grid outputs** that are valued by **consumers**;
- (b) the strength of the relationship between a measure and **base capex**; and
- (c) whether a measure is quantifiable, controllable by **Transpower**, auditable and replicable over time.

A6 Criteria for considering matters relating to revenue-linked grid output measures

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

- (a) the value that **consumers** place on that **grid output measure** and the relationship between this value and the proposed **grid output incentive rate**;
- (b) quantification of relationship between **base capex** and the **grid output** both-
 - (i) within the **regulatory period** in question; and
 - (ii) over the longer term;
- (c) the extent of the likely effect of factors unrelated to investment that may affect the **grid output**, such as-
 - (i) natural degradation in asset condition;
 - (ii) impact of changes in loading of the **grid**; and
 - (iii) extreme weather events;
- (d) the plausible range of **grid outputs** likely to be delivered taking into account factors described in paragraphs (b) and (c);
- (e) the relationship between the range described in paragraph (d) and the proposed **caps** and **collars**; and
- (f) the impact on return on capital implied by both the range described in paragraph (d) and the application of the proposed **cap**, **collars** and **grid output incentive rate**.

SCHEDULE B REVENUE ADJUSTMENTS

cl. 3.2.3(1), 3.3.5(1), 3.3.7(1), 3.3.7(2), 4.1.1(1)

DIVISION 1 BASE CAPEX AND GRID ADJUSTMENTS

B1 Calculation of annual base capex expenditure adjustment

- (1) Subject to subclause (2), the quantum of the **base capex expenditure adjustment** is calculated in accordance with the following table:

Term	Description	Specification
	base capex expenditure adjustment	$a(b-c-g)$
<i>a</i>	base capex incentive rate	determination in accordance with clause 2.2.2
<i>b</i>	adjusted base capex allowance	$d + e + f$
<i>c</i>	aggregate capital expenditure that is base capex resulting in assets first commissioned in the disclosure year	base capex annual information required by an ID determination or a s53ZD notice
<i>d</i>	base capex allowance	determination in accordance with clause 2.2.2
<i>e</i>	adjustment correcting for disparity between forecast CPI and actual CPI in respect of <i>d</i>	base capex annual information required by an ID determination or a s53ZD notice
<i>f</i>	adjustment correcting for disparity between forecast FX rates and actual FX rates for each relevant foreign currency in respect of <i>d</i>	base capex annual information required by an ID determination or a s53ZD notice
<i>g</i>	aggregate amount of the adjusted base capex allowance or capital expenditure that is base capex to which the base capex incentive rate does not apply (the aggregate being a positive or negative value).	base capex annual information required by an ID determination or a s53ZD notice

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

B2 Calculation of base capex annual policies and processes adjustment

- (1) Subject to subclause (2), the quantum of the **policies and processes adjustment** is calculated in accordance with the following table:

Term	Description	Specification
	policies and processes adjustment	$(a \times h) + (a \times h')$
<i>a</i>	base capex incentive rate	determination in accordance with clause 2.2.2
<i>h</i>	aggregate capital expenditure that is base capex resulting in assets first commissioned in the disclosure year with respect to base capex projects or base capex programmes for which the requirements of clause 3.2.1 have not been met in all material respects	base capex annual information required by an ID determination or a s53ZD notice
<i>h'</i>	aggregate capital expenditure that is base capex resulting in assets first commissioned in the disclosure year with respect to base capex projects or base capex programmes for which the requirements of clause 3.2.2 have not been met except to the extent that the Commission is satisfied that it was appropriate for the relevant policies or processes not to have been followed for the project or programme	base capex annual information required by an ID determination or a s53ZD notice

- (2) For the purpose of subclause (1), in calculating the amounts or values for one or more of *h* or *h'*, the **Commission** need not use the amounts or values for *h* and *h'* disclosed by **Transpower** in the **base capex** annual information and may instead, having regard to the views of interested persons, use the amounts or values that it considers are correct in the circumstances.

B3 Calculation of annual grid output adjustment

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

Term	Description	Specification
	grid output adjustment	$\sum i$
<i>i</i>	grid output adjustment in respect of the revenue-linked grid output	$\max\{l(j-n), \min\{l(m-n), l(k-n)\}\}$

	measure in question	
<i>j</i>	collar in respect of the revenue-linked grid output measure in question	determination in accordance with clause 2.2.2
<i>k</i>	cap in respect of the revenue-linked grid output measure in question	determination in accordance with clause 2.2.2
<i>l</i>	grid output incentive rate in respect of the revenue-linked grid output measure in question	determination in accordance with clause 2.2.2
<i>m</i>	output achieved in respect of the revenue-linked grid output measure in question	base capex annual information required by an ID determination or a s53ZD notice
<i>n</i>	grid output target in respect of the revenue-linked grid output measure in question	determination in accordance with clause 2.2.2

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

DIVISION 2 MAJOR CAPEX ADJUSTMENTS

B4 Calculation of major capex overspend adjustment

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

- (4) The quantum of the **adjusted major capex allowance** is calculated, subject to subclause (5), in accordance with the following table:

Term	Description	Specification
	adjusted major capex allowance	$o + p + q + r$
<i>o</i>	major capex allowance	approval in accordance with Part 3 Subpart 3
<i>p</i>	adjustment correcting for disparity between forecast CPI and actual CPI in respect of <i>o</i>	major capex annual information required by an ID determination or a s53ZD notice
<i>q</i>	adjustment correcting for disparity between forecast FX rates and actual FX rates for each relevant foreign currency in respect of <i>o</i>	major capex annual information required by an ID determination or a s53ZD notice
<i>r</i>	amount of major capex to which the major capex overspend adjustment does, or does not, apply as the case may be (and therefore being a positive or negative amount).	major capex annual information required by an ID determination or a s53ZD notice

- (5) For the purpose of subclause (4), in calculating the amounts or values for one or more of *p*, *q* and *r*, the **Commission** need not use the amounts or values of *p*, *q* and *r* disclosed by **Transpower** in the **major capex** annual information and may instead, having regard to the views of interested persons, use the amounts or values that it considers are correct in the circumstances.

B5 Calculation of major capex project output adjustment

- (1) Subject to subclause (2), the quantum of the **major capex project output adjustment** is calculated in accordance with the following table:

Term	Description	Specification
	major capex project output adjustment	$s \times t$
<i>s</i>	major capex incentive rate	IPP determination
<i>t</i>	aggregate capital expenditure in respect of the major capex project in question that does not deliver the approved major capex project outputs	major capex annual information required by an ID determination or a s53ZD notice

- (2) For the purpose of subclause (1), in calculating an amount of *t*, the **Commission** need not use the value of *t* disclosed by **Transpower** in the **major capex** annual

information and may instead, having regard to the views of interested persons, use an amount that it considers is correct in the circumstances.

B6 Calculation of major capex sunk costs adjustment

The **major capex sunk costs adjustment** is equal to the amount of the **major capex** incurred by **Transpower** in respect of the **major capex project** in question which, having regard to the factors listed in clause 6.1.1(6), the **Commission** considers should reasonably be recovered by **Transpower** under one or more **IPP determinations**.

B7 Calculation of major capex efficiency adjustment

- (1) Subject to subclause (2), the quantum of the **major capex efficiency adjustment** is calculated in accordance with, the following table:

Term	Description	Specification
	major capex efficiency adjustment	$u \times v$
u	major capex incentive rate	IPP determination
v	major capex efficiencies	major capex regulatory period information required by an ID determination or a s53ZD notice

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

SCHEDULE C MAJOR CAPEX PROPOSAL - EVALUATION CRITERIA

cl. 6.1.1(4)

C1 Proposed investment components

- (1) When deciding whether to approve a **proposed investment** the **Commission** will evaluate, to the extent applicable to the **transmission investment** or **non-transmission solution** in question, the following proposed components:
 - (a) **major capex allowance;**
 - (b) **maximum recoverable costs;**
 - (c) **recovery scheme;**
 - (d) **approved major capex project outputs;**
 - (e) **approval expiry date;**
 - (f) **P50;**
 - (g) **commissioning date assumption;** and
 - (h) **completion date assumption.**
- (2) The **Commission** may not approve a **proposed investment** where, after evaluating the components listed in subclause (1), it is not satisfied -
 - (a) with one or more of the proposed components;
 - (b) with the **proposed investment** in whole or in part; or
 - (c) that the **proposed investment** satisfies the **investment test.**
- (3) In evaluating the components listed in subclause (1), the Commission will apply the evaluation criteria in C2 to C6 below.

C2 General evaluation of major capex proposal

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

- (a) whether the **proposed investment** and **investment options**:
 - (i) reflect **good electricity industry practice;**
 - (ii) are technically feasible;
 - (iii) are able to be implemented in terms of the statutory planning process under the Resource Management Act 1991, other regulatory consents, and obtaining property and access rights; and
 - (iv) can be integrated into system and market operations;

- (b) whether the estimated time required for construction, consultation, meeting statutory planning and other regulatory requirements, and obtaining property and access rights prior to a proposed **commissioning date** or **completion date** is reasonable;
- (c) whether the **key assumptions** around outage planning are reasonable;
- (d) the extent to which, in complying with clause 3.3.1(7) with respect to the consultation programme or the approach for consideration of **non-transmission solutions**, Transpower has had regard to the views of interested persons; and
- (e) the impact of the **sensitivity analysis** on **electricity market benefit or cost elements** of the **proposed investment** and **investment options**.

C3 Evaluation of major capex allowance and maximum recoverable costs

The **Commission** must have regard to at least one of the following factors when evaluating the **major capex allowance** and **maximum recoverable costs** for **proposed investments** and **investment options**:

- (a) how **major capex project outputs**, key drivers, **key assumptions**, and cost modelling were used to determine the **P50** and **major capex allowance** or **maximum recoverable costs**;
- (b) what **key assumptions** were made regarding cost uncertainty in moving from a **P50** forecast to the proposed **major capex allowance** or **maximum recoverable costs**;
- (c) the capital costing methodology and formulation, including unit rate sources, the method used to test the efficiency of unit rates and the level of contingencies included;
- (d) the impact of forecast costs on other costs of **Transpower**, including the relationship with **operating expenditure**;
- (e) mechanisms for controlling actual **capital expenditure** with respect to the **major capex allowance** or **maximum recoverable costs**; and
- (f) the efficiency of the proposed approach to procurement of goods and services.

C4 Evaluation of approval expiry date

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

- (a) the effect of the proposed **approval expiry date** on the quantified and unquantified costs and benefits under the **investment test**;

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

C5 Evaluation of major capex project outputs

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

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

C6 Evaluation techniques

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

- (a) analysis of powerflow and dynamics in the **grid**, in the context of the **proposed investment, investment options** and **modelled projects**;

- (b) detailed critiques of conceptual designs to the extent necessary to derive credible cost and time estimates, including forecast **commissioning dates** or **completion dates**;
- (c) analysis and review of the calculation of costs and benefits associated with the **proposed investment** and **investment options** including, but not limited to:
 - (i) calculation of loss benefits;
 - (ii) reductions in fuel consumption by generators of electricity;
 - (iii) enabled lower cost generation;
 - (iv) reliability benefits; and
 - (v) **competition effects**;
- (d) critiques of market development scenarios contained in **major capex proposals**; and
- (e) unit rate benchmarking.

SCHEDULE D MAJOR CAPEX - INVESTMENT TEST

cl. 1.1.5(2), 'investment test'

DIVISION 1 INVESTMENT TEST

D1 Major capex - investment test

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

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

DIVISION 2 MEANING OF TERMS USED IN INVESTMENT TEST

D2 Investment option

Investment option means a **major capex project**-

- (a) other than one proposed to be fully funded under a **new investment contract**;
- (b) designed to meet a particular **investment need**;
- (c) that is technically feasible; and
- (d) that is different to another **major capex project** designed to meet the same **investment need** at least in respect of its proposed **commissioning date** or **completion date** or date for proposed delivery of **major capex project outputs**, as the case may be, which difference must be material.

D3 Expected net electricity market benefit

- (1) Expected net electricity market benefit means, in respect of an **investment option**, the weighted average of the **net electricity market benefit** under each **relevant demand and generation scenario**, where each **relevant demand and generation scenario** is accorded the explicit or implicit weighting assigned to it by the party who developed the scenario, unless **Transpower** considers that alternative weightings should apply and has consulted on these as part of its consultation on the short list of **investment options**.
- (2) Net electricity market benefit means, in respect of an **investment option** applied to a **demand and generation scenario**, its aggregated quantum of each **electricity market benefit or cost element** less its aggregated quantum of each **project cost**.

D4 Demand and generation scenario

- (1) Demand and generation scenario means-
 - (a) until a **document** described in paragraph (b) of this clause is published,-
 - (i) scenario specified as 'market development scenario' in the statement of opportunities published by the Electricity Commission in 2010; or
 - (ii) reasonable variation on a scenario referred to in sub-paragraph (i), that reasonably has regard to the views of interested persons;
 - (b) description of a hypothetical future situation relating to forecast electricity demand and generation published by the Ministry of Economic Development

- (or other agency which subsequently assumes the responsibility) for the purpose of the preparation or evaluation of grid upgrade plans; or
- (c) reasonable variation on a description referred to in paragraph (b) that reasonably has regard to the views of interested persons.
- (2) For the purpose of subclause (1)(a)(ii) and (c), a variation must-
- (a) contain at least as much detail as each **market development scenario** or **MED scenario**, as the case may be; and
- (b) be feasible and reasonable with regard to at least the following factors:
- (i) existing and forecast demand;
 - (ii) the **grid reliability standards**;
 - (iii) the **value of expected unserved energy**;
 - (iv) transfer capacities and capabilities of the **grid**;
 - (v) the cost of supplying sufficient **ancillary services**;
 - (vi) the cost of losses necessarily incurred in efficiently meeting demand;
 - (vii) **operating expenditure** incurred in efficiently meeting demand by means of **existing assets, committed projects, decommissioned assets** and **modelled projects**;
 - (viii) the capital cost of efficiently meeting demand by means of **modelled projects**;
 - (ix) the timing of decommissioning an asset or removing or re-rating a **decommissioned asset**; and
 - (x) likely range of **investment options** to which the **investment test** relates.
- (3) Relevant demand and generation scenarios means-
- (a) until the first **MED scenario** is published,-
- (i) each **market development scenario**; or
 - (ii) a reasonable number of **market development scenario variations**; and
- (b) after the first **MED scenario** is published,-
- (i) each current **MED scenario**; or
 - (ii) a reasonable number of **MED scenario variations**.
- (4) For the purpose of subclause (1)(a)(i), 'statement of opportunities' has the same meaning as defined in the Electricity Governance Rules 2003 immediately before their revocation.

D5 **Costs or benefits**

- (1) Electricity market benefit or cost element means, subject to subclause (3), any of the following things received or incurred by **consumers** during the **calculation period** under the **demand and generation scenario** in question, that, on account of any relevant uncertainty and associated probability, will affect **net electricity market benefits**:
- (a) fuel costs incurred by **generators** in relation to **existing assets, committed projects and modelled projects**;
 - (b) the cost of involuntary demand curtailment borne by end users of electricity;
 - (c) the costs of demand-side management;
 - (d) capital costs of **modelled projects**;
 - (e) costs resulting from operations and maintenance expenditure on **committed projects, existing assets and modelled projects**;
 - (f) the cost of **ancillary services** including **system operator** costs;
 - (g) the cost of losses, including local losses;
 - (h) any real option value;
 - (i) subject to subclause (5), the value of any benefit associated with any financial contribution that a third party has committed to make towards the costs of the **project**;
 - (j) subsidies or other benefits-
 - (i) relating to anything listed in paragraphs (a) to (i); and
 - (ii) provided under or arising pursuant to all electricity-related legislation and electricity-related administrative determinations;
 - (k) **competition effects**; and
 - (l) any other benefit or cost occurring in the electricity market proposed by **Transpower** prior to its consultation on the short list of **investment options** and agreed to by the **Commission**.
- (2) Project cost means any of the following things reasonably incurred by **Transpower** prior to or during the **calculation period** in undertaking a **major capex project**:
- (a) **capital expenditure** incurred, including **capital expenditure** in relation to land specified in subclause (6), prior to the **commissioning date** of assets associated with the **investment option**;
 - (b) amounts payable to a third party in relation to its testing of assets associated with the **investment option**;
 - (c) an amount reasonably related to the **commissioning** of assets associated with the **investment option**;

- (d) operating, maintenance and dismantling costs associated with the **investment option**;
 - (e) reasonable costs of complying with or arising pursuant to all applicable existing and reasonably anticipated legislation relating to the approval for and undertaking of an **investment option**;
 - (f) reasonable costs of complying with or arising pursuant to administrative requirements relating to the approval for and undertaking of an **investment option**, including costs relating to the preparation of a **major capex proposal**; and
 - (g) any other reasonable costs incurred by **Transpower** associated with the **investment option**.
- (3) For the purpose of subclause (1), an **electricity market benefit or cost element** excludes any **project cost** incurred by **Transpower** specified in subclause (2).
 - (4) For the purpose of subclause (1)(h), 'real option value' means the value attaching to the flexibility of a participant in the electricity market to make investment decisions, relating to an overall investment, in phases, where the value reflects the expected relative reduction of future costs to future benefits due to the making of those investment decisions based on information available in the future but presently unavailable or uncertain.
 - (5) For the purpose of subclause (1)(i), the value of any such benefit may not exceed the amount of the contribution committed by the third party.
 - (6) The land referred to in subclause (2) is land that, at the time of the **major capex proposal**, is **commissioned** but which is not used by **Transpower** to provide **electricity transmission services**.

D6 **Competition effects**

Competition effects means value of the expected change in economic surplus due to a change in competition among participants in the electricity market as a result of a **major capex project** undertaken by **Transpower**, excluding any expected change in economic surplus due to another **electricity market benefit or cost element** listed in clause D5(1).

D7 **Quantification of costs and benefits**

- (1) The quantum of a **project cost** incurred prior to the **calculation period** must be calculated using compounding of the **project cost** over the period from the date it was incurred to the start of the **calculation period** using the **discount rate**.
- (2) The quantum of an **electricity market benefit or cost element** received or incurred during the **calculation period** must be calculated using discounting of the **electricity market benefit or cost element** over the **calculation period** using the **discount rate**.
- (3) Discount rate means-

- (a) where the **investment option's expected net electricity market benefit** is materially different when discounting using rates of 4% and 10% to its **expected net electricity market benefit** when discounting using a rate of 7%, any percentage other than 7% that is appropriate in the circumstances; and
- (b) in all other circumstances-
 - (i) 7%; or
 - (ii) any percentage other than 7% that is appropriate in the circumstances.
- (4) The quantum of an **electricity market benefit or cost element or project cost** must be calculated using its expected value, which is the probability-weighted average of the possible values of the cost or benefit where the probability weightings reflect the uncertainties in underlying assumptions or calculation approaches.
- (5) The cost of involuntary demand curtailment borne by end users of electricity is the expected quantity of curtailed demand multiplied by the **value of expected unserved energy**.
- (6) The quantum of a **project cost** must be calculated using **good electricity industry practice**.

D8 Sensitivity analysis

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

- (2) For the purpose of subclause (1)(e), where paragraph (b) of the definition of value of expected unserved energy is relied on, sensitivity analysis must be undertaken in respect of variations in both the value described in that paragraph and the value described in paragraph (a) of the definition of value of expected unserved energy.
- (3) For the purpose of subclause (1)(f), where the **discount rate** is other than 7%, sensitivity analysis must be undertaken in respect of both the **discount rate** that applies and a **discount rate** of 7%.

D9 **Assets and projects**

- (1) Committed project means assets that are likely to be commissioned during the **calculation period** and-
 - (a) in relation to which all of the following are satisfied:
 - (i) the proponent has obtained all required planning consents, construction approvals, and licences, and fulfilled any other regulatory requirement that must be met before commencing construction;
 - (ii) construction has commenced or a firm commencement date for construction has been set;
 - (iii) the proponent has acquired or executed an agreement to acquire land (or commenced legal proceedings to acquire land), or has executed an agreement for the leasing of land, for the purposes of construction;
 - (iv) contracts for supply and construction of the major components of the plant and equipment (including any generating units, turbines, boilers, transmission towers, conductors, termination station equipment) have been executed (i.e. all the necessary formal legal requirements have been observed to make the contract valid and complete); and
 - (v) if required, contracts for the financing of the project, including any debt plans, have been executed (i.e. all the necessary formal legal requirements have been observed to make the contract valid and complete); or
 - (b) that is an approved investment (as 'approved investment' is defined in the **code**).
- (2) Decommissioned asset means an existing asset in relation to which-
 - (a) the following things are satisfied:
 - (i) a final decision to decommission, remove or de-rate the existing asset after a specified date has been made and publicly announced; and
 - (ii) firm arrangement to directly or indirectly facilitate the decommissioning, removal or de-rating of the existing asset has been made;

- (b) consents or contracts for its operation and maintenance have-
 - (i) been terminated; or
 - (ii) expired with no reasonable prospect of renewal; or
 - (c) agreements for early termination of consents or contracts for its operation and maintenance have been executed.
- (3) Existing asset means any asset in operation at the time a **major capex proposal** is made.
- (4) Modelled project means assets, other than those that are part of an **investment option**,-
- (a) which are likely to exist-
 - (i) as part of a **demand and generation scenario**; and
 - (ii) during the **calculation period** for any **investment option** based on that scenario; and
 - (b) for which the likelihood, nature and timing of their existence are affected by an **investment option** proceeding.

SCHEDULE E INTEGRATED TRANSMISSION PLAN

cl. 7.2.1

E1 Information to be included in integrated transmission plan

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

E2 Information to be included in the ITP narrative

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

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

E3 ITP supporting documents

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

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

E4 Information to be included in the asset management plan

- (1) overall asset management strategy and objectives;
- (2) overall asset risk management framework; and
- (3) asset management plans for each asset class covering;

- (a) specifications for assets life cycle activities;
- (b) general condition of existing assets;
- (c) intended programmes of asset management works;
- (d) routine maintenance and repair plans for assets; and
- (e) programmes for routine maintenance and repair plans.

E5 Information to be included in the planning report

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

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

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

SCHEDULE F **BASE CAPEX PROPOSAL - QUALITATIVE INFORMATION**

cl. 7.3.1, 9.1.1

F1 **Qualitative information required in a base capex proposal**

For the purpose of clause 7.3.1(1)(b), a **base capex proposal** must, in addition to the other things specified in that clause, include all the information listed or described in this schedule.

F2 **Identified programmes**

- (1) Identified programmes means **base capex projects** or **base capex programmes** forecast to be undertaken during the next **regulatory period** defined, subject to subclause **Error! Reference source not found.**, by reference to one or more of the following categories or criteria-

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- (a) **base capex categories;**
 - (b) a classification by way of a maximum cost or expenditure threshold or another related financial measure;
 - (c) a ranking system, such as the five highest cost **programmes** or **projects**;
 - (d) any other distinguishing characteristic or measure applicable to types of **programmes** or **projects** undertaken by **Transpower**,
- and 'identified programme' means one of those **programmes** or **projects**.

F3 **Overview**

- (1) detailed commentary as to how the proposed **projects** and **programmes** relating to **base capex** are consistent with the-
 - (a) most recent **integrated transmission plan**, and if not, why not; and
 - (b) **opex proposal**,
 for the next **regulatory period**;
- (2) overall description of **Transpower's** aims and objectives with respect to **base capex** during the next **regulatory period**;
- (3) summary of the key evidence supporting those aims and objectives;
- (4) explanation as to the overall deliverability of the proposed **projects** and **programmes** relating to **base capex**; and

- (5) identification and explanation of the factors likely to affect the deliverability of the proposed **projects** and **programmes** relating to **base capex**, by **base capex category**;

F4 **Policies, processes and consultant reports**

- (1) schedule listing all **policies** or processes applicable to **base capex** concerning-
 - (a) **base capex projects** costing over \$20 million;
 - (b) **base capex programmes**;
 - (c) asset management;
 - (d) business planning; or
 - (e) capital works;
- (2) description of all material changes to **policies** and processes described in subclause (1) made since the **Commission's** last determination of a **base capex allowance**; and
- (3) schedule listing all consultant reports commissioned for the purpose of preparing the proposal;

F5 **Cost and efficiency**

- (1) evidence demonstrating if, and how, **Transpower** has, in relation to **base capex**, during the current **regulatory period**-
 - (a) pursued, and is pursuing process improvements,
 - (b) ensured and is seeking to ensure appropriate least-cost and efficient interventions
 - (c) pursued and is pursuing cost reduction strategies for its **projects** and **programmes**
 - (d) ensured and is seeking to ensure that both internal and external suppliers of goods and services have incentives to perform well and identify cost savings;
- (2) description of all efficiency assumptions relied upon in the proposed **base capex allowances**; and
- (3) description of-
 - (a) any contingency included in proposed costs; and
 - (b) the methodology for calculating such contingencies;

F6 **Information on programmes and identified programmes**

- (1) description, in respect of each **base capex programme**, of the milestones that have been passed in accordance with **Transpower's** internal approval processes;

- (2) in respect of each **identified programme**:
- (a) description of the **programme**, including its aims and objectives;
 - (b) cost-benefit analyses that support it;
 - (c) explanation as to its deliverability, with reference to factors likely to specifically affect that programme;
 - (d) description of the methodology used to generate the forecast of its **base capex**, including, but not limited to-
 - (i) the relevant **key assumptions** and how they were applied;
 - (ii) any relevant cost benchmarking undertaken by or for **Transpower**; and
 - (iii) internal historical cost trends for specific cost components relied upon e.g. unit costs;
 - (e) any material change from historical costs in any cost component included in the programme and its effect on the forecast capex;
 - (f) list of all relevant documents taken into account in forecasting its **base capex**, including documents relating to its deliverability, relevant **policies** and consultant reports;
 - (g) explanation of the extent to which its forecast **base capex** implements the **key assumptions**, any consultant reports, and **policies** relating to the planning of the **grid** and the forecasting of **capital expenditure** and **operating expenditure** for that purpose, including in relation to-
 - (i) long term **grid** development;
 - (ii) **grid** maintenance; and
 - (iii) **grid** operation;
 - (h) explanation of all material departures from any-
 - (i) relevant **policies**;
 - (ii) planning standards; or
 - (iii) conclusions and recommendations contained in the consultant reports identified pursuant to paragraph (f);
 - (i) overview of any significant tradeoffs between **operating expenditure**, **base capex** and quality that **Transpower** considered in its development
 - (j) assessment of its impact upon either or both of the-
 - (i) quality performance; and
 - (ii) serviceability,

- of the assets to which it relates;
- (k) description of relevant legally enforceable duties owed by **Transpower**, whether arising under legislation, at common law or in contract, that have a material impact on an **identified programme**;
 - (l) description of any material step change compared to historic costs for the same or a similar type of programme; and
 - (m) explanation of the effect of a step change identified pursuant to paragraph (l) on its forecast **base capex**;
 - (n) where not required by the **regulatory templates** agreed pursuant to clause 2.2.1(1), or specified pursuant to clause 2.2.1(2), schedule of any models used accompanied by explanations of them and how they were relied upon;
- (3) in respect of each **identified programme** forecast to be first **commissioned** during the next **regulatory period**-
- (a) description of the system growth **project** prioritisation approach;
 - (b) summary of the options considered, analyses undertaken and the reasons for rejecting those that are not proposed to be implemented;
 - (c) a schedule-
 - (i) listing all **programmes** or **projects** whose forecast **base capex** includes a contingency amount additional to the forecast cost of that programme;
 - (ii) describing the rationale for inclusion of each such contingency amount;
 - (iii) describing the uncertainties each contingency amount accounts for; and
 - (iv) specifying the methodology for calculating the quantum of each contingency amount; and
- (4) in respect of each **identified programme** with a fixed end date forecast to be first **commissioned** in the **regulatory period** after the next **regulatory period**, information of the type specified in subclause (1) must be provided in respect of the period ending on the forecast **commissioning date**;

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F7 Procurement

- (1) In relation to procurement, identify any **identified programme** that uses outsourced services which have a material effect on the desired outcome of that **identified programme**.
- (2) In relation to each **identified programme** identified pursuant to subclause (1),-
 - (a) identify the outsourced services that have a material effect;
 - (b) explain whether those outsourced services are to be provided-
 - (i) under a discrete contract; or

- (ii) as part of a broader operational arrangement or contract (or similar);
- (c) provide an overview of the procurement process, including an explanation of the extent to which the process was competitive, and if not, why not;
- (d) identify any significant components of any outsourced services that will be or have been sub-contracted to another supplier; and
- (e) identify relevant procurement documents in a schedule, including but not limited to requests for tender and submissions in response.

F8 Resourcing and delivery

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

F9 Other capex

In respect of any **base capex** included in the **regulatory templates** agreed pursuant to clause ~~2.2.1(1)~~ or specified pursuant to clause ~~2.2.1(2)~~, to which clause F6 does not apply, description of the rationale for any forecast **base capex** exceeding \$1 million in any one **disclosure year**.

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F10 Escalation factors and foreign exchange assumptions

- (1) in respect of each escalation factor relied on to account for changes in input prices in completing the **regulatory templates** agreed pursuant to clause ~~2.2.1(1)~~ or specified pursuant to clause ~~2.2.1(2)~~-
 - (a) description of each such escalation factor and rationale for its use;
 - (b) methodology underlying the calculation of its quantum, by reference to data sources, data conversions and assumptions relied upon, including lags;
 - (c) the weighting given to it and description of how that weighting was determined, including any assumptions relied upon;
 - (d) explanation of whether the same escalation factor has been used in the **base capex proposal** and **opex proposal**, and if not, explanation and supporting evidence as to why different escalator factors were applied;

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- (e) an explanation of whether, in applying escalation factors that relate to labour or material inputs, additional contingency factors were applied and, if so, description of the uncertainties they account for and how they were calculated;
- (2) a list of the foreign exchange rates used to prepare the proposed **base capex allowance**;
- (3) an estimate of the exposure to foreign currency for each foreign currency for each year of the next **regulatory period** and description of how these estimates were produced.

F11 Information on proposed grid output measures

- (1) lists of all proposed-
 - (a) **performance-based measures**;
 - (b) **asset capability grid output measures**;
 - (c) **asset health grid output measures**; and
 - (d) **grid output measures** designed to measure the benefit delivered by proposed expenditure not captured by paragraphs (a) to (c) above, that clearly identify those proposed to be **revenue-linked grid output measures**;
- (2) description of each measure listed under subclause (1) including-
 - (a) detailed definitions;
 - (b) details as to what the measure includes and excludes;
 - (c) any relevant calculations;
 - (d) the reasons for selecting each measure;
 - (e) relationship between it and risks associated with the **grid**;
 - (f) relationship between it and forecast performance of the **grid**;
 - (g) relationship between it and the key purposes of the investment;
- (3) in respect of each measure listed under subclause (1)-
 - (a) the effect that the proposed **base capex allowances** would have on it both during the next **regulatory period** and beyond it; and
 - (b) its alignment with the underlying business processes used to plan and operate the **grid**.

F12 Revenue-linked grid output measures

- (1) in respect of each proposed **revenue-linked grid output measure**-

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

F13 **Grid output measures not linked to revenue**

in respect of each **grid output measure** not subject to the **grid output mechanism**-

- (a) the forecast quantum of the **grid output measure** at the start of the **regulatory period**;
- (b) explanation as to how that forecast quantum was determined;
- (c) forecast incremental change to its quantum by the end of the **regulatory period** were no **base capex** undertaken during the **regulatory period**;

- (d) forecast incremental change to its quantum by the end of the **regulatory period** were expenditure made in accordance with the proposed **base capex allowances**; and
- (e) models and data used to forecast-
 - (i) its quantum at the start of the **regulatory period**; and
 - (ii) incremental changes to its quantum during and by the end of the **regulatory period**;

SCHEDULE G MAJOR CAPEX PROPOSALS

cl.7.4.1, 9.2.1

G1 Information required in a major capex proposal

For the purpose of clause 7.4.1(1)(a), a **major capex proposal** must include the information listed or described in this schedule.

G2 Information on the investment need

explanation of the need for investment, including-

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

G3 Information on relevant demand and generation scenarios

- (1) detailed description of each **relevant demand and generation scenario** that is a **market development scenario variation** or **MED scenario variation**, as the case may be;
- (2) in respect of-
 - (a) each **market development scenario variation** or **MED scenario variation**, as the case may be, a description of it;
 - (b) each **market development scenario variation**, -
 - (i) explanation of the major variations between it and the **market development scenarios**; and
 - (ii) the rationale for the variations; and
 - (c) each **MED scenario variation**, -
 - (i) explanation of the major variations between it and the current **MED scenarios**; and
 - (ii) the rationale for the variations;
- (3) in respect of each **relevant demand and generation scenario**, -
 - (a) the relative weighting of each scenario; and
 - (b) where that weighting was determined by **Transpower**, the methodology used to determine it; and

- (4) in respect of each **market development scenario variation** or **MED scenario variation**, as the case may be, summary of consultees' views on them.

G4 Information relating to each investment option

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

- (1) description of the **investment option**;
- (2) **net electricity market benefit** of each **investment option** under each **demand and generation scenario**;
- (3) in respect of each **investment option**, quantum of-
 - (a) each **electricity market benefit or cost element**;
 - (b) each **project cost**;
 - (c) aggregate **electricity market benefit or cost element**; and
 - (d) aggregated **project costs** on a **P50** basis, used to calculate each **net electricity market benefit**;
- (4) methodology used to determine the quantum of all information provided pursuant to subclause (3), including details commensurate with the estimated **capital expenditure** and complexity of the **investment option** of any-
 - (a) internal and external benchmarking and how the results were applied;
 - (b) relevant existing or proposed supply or procurement processes;
 - (c) modelling tools or techniques; and
 - (d) key publications and data sources;
- (5) **key assumptions** used to determine the **net electricity market benefit** of each **investment option**, including-
 - (a) **discount rate**;
 - (b) **calculation period**;
 - (c) cost per megawatt hour used to determine the **value of expected unserved energy**; and
- (6) **expected net market benefit** of each **investment option**;

G5 Information relating to proposed investment only

- (1) identification of the **investment option** that is the **proposed investment**;
- (2) detailed description of the components of the **proposed investment**, including at least-

- (a) identification of the extent to which the **proposed investment** is a **transmission investment** or a **non-transmission solution**;
 - (b) a summary of requirements for completion, such as property or property right acquisition, resource management approvals, asset purchases, asset construction and site remediation;
 - (c) any proposed **major capex allowance**;
 - (d) where a **major capex allowance** is applicable, the **commissioning date assumption** and rationale for it;
 - (e) any proposed **maximum recoverable costs**;
 - (f) where **maximum recoverable costs** are applicable, the **completion date assumption** and rationale for it;
 - (g) the estimated **P50**;
 - (h) all relevant supporting technical information and costing information;
 - (i) where the project is a **non-transmission solution**-
 - (i) the proposed **recovery scheme**; and
 - (ii) an explanation of the relationship between any proposed **major capex allowance** and any proposed **maximum recoverable costs** for that **non-transmission solution**; and
 - (j) proposed **approval expiry date** and rationale for it;
- (3) detailed description of the rationale for seeking approval of the **proposed investment**;
 - (4) summary of the key evidence that supports that rationale such as contracts, reports, memos, financial or other data, results of modelling exercises, customer documentation and letters, and statements from directors;
 - (5) detailed commentary as to how the **proposed investment** is consistent with the most recent **integrated transmission plan**, and if not, why not;
 - (6) identification of anything associated with the **proposed investment** falling under any of clauses D5(1)(a) to D5(1)(g) that did not meet the definition of expected market benefit or cost element only by virtue of its being unlikely to affect the **net electricity market benefit** to an appreciable degree;
 - (7) description of considerations, assumptions and calculations used to determine that something falling under any of clauses D5(1)(a) to D5(1)(g) did not meet the definition of expected market benefit or cost element by virtue of its being unlikely to affect the **net electricity market benefit** to an appreciable degree;
 - (8) outcome of sensitivity analysis;
 - (9) description of the methodology applied in undertaking **sensitivity analysis**;

- (10) explanation as to how robust the **proposed investment** is to **sensitivity analysis**;
- (11) reasons for any selection of a-
 - (a) **discount rate** other than 7%; and
 - (b) **calculation period** other than 20 years;
 - (c) cost per megawatt hour determined using paragraph (b) of the definition of **value of expected unserved energy**;
- (12) a description as to how the **proposed investment** reflects **good electricity industry practice**;
- (13) rationale for determining that the **proposed investment** may satisfy the **investment test**, by reference to each subclause and paragraph of that test; and
- (14) a plan for monitoring costs, project milestones and deliverables that reflects the best information available to **Transpower**;

G6 **Grid outputs**

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

- (1) specification of **approved major capex project outputs** that are proposed;
- (2) quantum of each **approved major capex project output** that is proposed;
- (3) rationale for those **approved major capex project outputs** that are proposed including-
 - (a) description of key factors and **key assumptions** relevant to their determination including the uncertainty associated with each such factor or assumption; and
 - (b) explanation of the extent to which the quantum of each proposed **major capex project output** reflects:
 - (i) the assets to be **commissioned**;
 - (ii) the forecast changes to the functional capability of the **grid**;
 - (iii) the quantum of forecast **electricity market benefit or cost elements** directly related to the **supply of electricity transmission services**; and
 - (iv) in respect of a **non-transmission solution**, any service provided by a third party;
- (4) explanation of the relationship between the proposed **P50** and the quantum of each **approved major capex project output** that is proposed including the sensitivity of the quantum of each **approved major capex project output** that is proposed to changes in the **P50**, including commentary in terms of increases or decrease in the scope of the **project**;

- (5) description of factors that may affect **Transpower's** ability to achieve each **approved major capex project output** that is proposed, including identification of each factor, with reasons, as within or outside **Transpower's** control; and
- (6) in the case of a **non-transmission solution** description of the **transmission investment** it avoids in terms of both assets and expected costs avoided.

G7 Information on consultation

In respect of consultation, the specified information is a description as to how the consultation programme referred to in clause 3.3.1(2)(a)(i) was followed, including-

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

G8 Information on non-transmission solutions

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

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

G9 Additional information

any additional supporting material **Transpower** reasonably considers is relevant to the decision of the **Commission** under clause 3.3.3;

SCHEDULE H INFORMATION REQUIREMENTS FOR AMENDMENT AND SUNK COSTS APPLICATIONS

cl., 7.4.2(3), 7.4.3(1), 9.3.1

DIVISION 1 AMENDMENT TO MAJOR CAPEX ALLOWANCE

H1 Information to be provided

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

H2 Project identification and specifications

identification of relevant **major capex project** and its **major capex allowance**;

H3 Amendment sought

- (1) quantum of proposed amendment to **major capex allowance**;
- (2) calculations showing how the quantum of the proposed amendment was calculated;
- (3) assumptions made in making those calculations; and
- (4) evidence in support of the calculations, including, where relevant-
 - (a) correspondence from manufacturers, suppliers, contractors and other relevant parties; and
 - (b) equipment test results;
- (5) proposed **P50**; and
- (6) calculations, **key assumptions** and supporting evidence used to determine proposed **P50**, by reference to specified **P50**;

H4 Progress of project

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

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

H5 Current and forecast expenditure

- (1) **major capex** incurred to the date of the application;
- (2) forecast **major capex**; and
- (3) difference between forecast **major capex** and the **major capex allowance**;

H6 Reasons for making the application

- (1) reason for applying, including-
 - (a) description of key factors leading to the application;
 - (b) commentary on the extent to which each key factor is within **Transpower's** control; and
 - (c) commentary on the extent to which each key factor was reasonably foreseeable by **Transpower** before the relevant **major capex proposal** was approved;
- (2) description of the implications of the proposed amendment on the relevant **approved major capex project outputs**;
- (3) where an application for amendment to the **approved major capex project outputs** is being made concurrently, explanation as to how the proposed amendments relate to each other;
- (4) where no application for amendment to the **approved major capex project outputs** is being made concurrently, explanation as to why those **approved major capex project outputs** will remain appropriate were the proposed adjustment made;
- (5) statement as to whether the **net electricity market benefit** of the **major capex project** is materially lower at the time of the application than when the relevant **major capex proposal** was approved and if so, current quantum of its **net electricity market benefit**; and
- (6) explanation as to why making the proposed amendment would promote the long-term benefit of **consumers**;

DIVISION 2 AMENDMENTS RELATING TO MAXIMUM RECOVERABLE COSTS OR RECOVERY SCHEME**H7 Information to be provided**

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

H8 Project identification and specifications

identification of-

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

H9 **Amendments sought**

- (1) quantum of any proposed amendment to **maximum recoverable costs**;
- (2) calculations showing how the quantum of the proposed amendment was calculated;
- (3) assumptions made in making those calculations;
- (4) evidence in support of the calculations, including, where relevant-
 - (a) correspondence from manufacturers, suppliers, contractors and other relevant parties; and
 - (b) equipment test results;
- (5) an explanation of the relationship between the proposed **maximum recoverable costs** and any **major capex allowance** for that **non-transmission solution**;
- (6) description of any amendment proposed to the **recovery scheme**;
- (7) proposed **P50**; and
- (8) calculations, **key assumptions** and supporting evidence used to determine proposed **P50**, by reference to specified **P50**;

H10 **Progress of project**

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

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

H11 Current and forecast expenditure

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

H12 Reasons for making the application

- (1) reason for applying, including-
 - (a) description of key factors leading to the application;
 - (b) explanation as to the extent to which each key factor is within **Transpower's** control; and
 - (c) explanation as to the extent to which each key factor was reasonably foreseeable by **Transpower** before the relevant **major capex proposal** was approved;
- (2) description of the implications of the proposed amendment on the relevant **approved major capex project outputs**;
- (3) where an application for amendment to the **approved major capex project outputs** is being made concurrently, explanation as to how the proposed amendments relate to each other in light of the information to which clause (2) applies; and
- (4) where no application for amendment to the **approved major capex project outputs** is being made concurrently, explanation as to why those **approved major capex project outputs** will remain appropriate were the proposed adjustment made in light of the information to which clause (2) applies;
- (5) statement as to whether the **net electricity market benefit** of the **non-transmission solution** is materially lower at the time of the application than when the relevant **major capex proposal** was approved and if so, current quantum of its **net electricity market benefit**; and
- (6) explanation as to why making the proposed amendment would promote the long-term benefit of **consumers**, taking into account-
 - (a) any costs that are sunk;

- (b) the context in which the **major capex proposal** was made; and
- (c) the context in which any subsequent amendments to the approval were made by the **Commission**.

DIVISION 3 **AMENDMENT TO APPROVED MAJOR CAPEX PROJECT OUTPUTS**

H13 **Information to be provided**

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

H14 **Project identification and specifications**

identification of relevant **major capex project** and its **approved major capex project outputs**;

H15 **Amendment sought**

- (1) proposed amendments to the **approved major capex project outputs**;
- (2) explanation as to how each proposed amendment was arrived at; and
- (3) description of the extent to which each proposed amendment reflects a change to the-
 - (a) assets to be **commissioned**;
 - (b) functional capability of the **grid**;
 - (c) quantum of **electricity market benefit or cost elements** directly related to the **supply of electricity transmission services** that are likely to be achieved as a result of undertaking the **project**; and
 - (d) in the case of a **non-transmission solution**, description of the extent to which each proposed amendment reflects a change to any relevant service provided by a third party;

H16 **Progress of project**

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

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

- (e) testing undertaken;

H17 Current and forecast expenditure

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

H18 Reasons for making the application

- (1) reason for applying, including-
 - (a) description of key factors leading to the application;
 - (b) commentary on the extent to which each key factor is within **Transpower's** control and actions taken to mitigate it; and
 - (c) commentary on the extent to which each key factor was reasonably foreseeable by **Transpower** before approval of the **major capex proposal**;
- (2) description and, where relevant, quantum of any current **key assumptions** different to those relied upon in applying the **investment test** in the **major capex proposal**;
- (3) description of the outcome of applying the **investment test** as it was applied in the **major capex proposal** modified by the proposed amendments and **key assumptions** described in subclause (2), including all relevant calculations and justifications for any exercises of judgment;
- (4) explanation as to why making the proposed amendment would promote the long-term benefit of **consumers** taking account of-
 - (a) the outcome referred to in subclause (3);
 - (b) any costs that are sunk;
 - (c) the context in which the **major capex proposal** was made; and
 - (d) the context in which any subsequent amendments to the approval were made by the **Commission**;

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- (5) where no application for amendment to the **major capex allowance** or **maximum recoverable costs**, as the case may be, is being made concurrently, explanation as to why that allowance or those costs will remain appropriate were the proposed amendment to **approved major capex project outputs** made.

DIVISION 4 **AMENDMENT TO APPROVAL EXPIRY DATE**

H19 **Information to be provided**

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

H20 **Project identification and specifications**

identification of relevant **major capex project** and-

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

H21 **Amendment sought**

proposed new **approval expiry date**;

H22 **Progress of project**

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

H23 Current and forecast expenditure

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

H24 Reasons for making the application

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

DIVISION 5 **SUNK COSTS APPLICATIONS**

H25 Information to be provided

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

H26 Project identification and specifications

identification of relevant **major capex project**;

H27 Sunk costs approvals sought

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

H28 Current and forecast expenditure

information on current and forecast expenditure, including-

- (a) **major capex** incurred;
- (b) forecast remaining **major capex** to be incurred;
- (c) calculations showing how the amount in clause H27 was calculated;
- (d) assumptions made in calculating the amount in clause H27; and
- (e) evidence in support of the **major capex** incurred, forecast remaining **capital expenditure** and the amount in clause H27, including, where applicable, **documents** and correspondence from manufacturers, suppliers, contractors and other relevant parties.

H29 Progress of project

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

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

H30 Reasons for making the application

- (1) reason for applying, including-
 - (a) description of key factors leading to the application, including the date of **Transpower** became aware of each of them;
 - (b) commentary on the extent to which each key factor was within **Transpower's** control and actions taken to mitigate its adverse effects; and
 - (c) commentary on the extent to which each key factor was reasonably foreseeable by **Transpower** before approval of the **major capex proposal**; and

- (2) explanation as to why making the **major capex sunk costs adjustment** would promote the long-term benefit of **consumers**;

SCHEDULE I MAJOR CAPEX CONSULTATION REQUIREMENTS

cl. 8.1.3(1), 8.1.3(2)

DIVISION 1 CONSULTATION ON OPTIONS

11 What Transpower must consult on

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

12 Long list consultation requirements

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

- (d) specify any **discount rate** other than 7% that it may use for the purpose of the **investment test**; and
- (e) in respect of each option-
 - (i) specify whether it is a **transmission investment** or **non-transmission solution**;
 - (ii) where it is a **non-transmission solution**, describes its type, where possible by reference to the things listed in the definition of non-transmission solution; and
 - (iii) describe its features, by reference to at least type, location, and anticipated duration of the works required.

13 Short list consultation requirements

- (1) When consulting on a short list of **investment options**, in its consultation **document**, **Transpower** must, except where **Commission** is satisfied that the inclusion of any matter outlined below would be unreasonable in the circumstances as provided for by clause 8.1.3(2)(b)-
 - (a) describe the **demand and generation scenarios** it intends using for the purpose of the **investment test** and the weightings of those scenarios; and
 - (b) provide information on the relevant **key assumptions**, including-
 - (i) cost of expected unserved energy per megawatt hour used to calculate the cost of involuntary demand curtailment borne by end users of electricity; and
 - (ii) any other variables material to application of the **investment test**.
- (2) In respect of each **investment option** on its short list, **Transpower** must, as a minimum-
 - (a) describe its features by reference to-
 - (i) the definition of investment option; and
 - (ii) at least its type, location, and anticipated duration of the works required.
 - (b) address any submissions raised in respect of each option described during the previous consultation;
 - (c) describe the likely **electricity market benefit or cost elements** and **project costs**;
 - (d) specify which **electricity market benefit or cost elements** are treated as unquantified;
 - (e) specify an estimate of the quantum of each likely **electricity market benefit or cost element** and **project cost** that is quantified; and

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

14 **Key assumptions**

For the purpose of clause 13, the **key assumptions** consulted upon must include the following things:

- (a) nature of the qualitative assessment used to take into account the contribution of associated unquantified **electricity market benefit or cost elements**;
- (b) cost of expected unserved energy per megawatt hour used to calculate the cost of involuntary demand curtailment borne by end users of electricity;
- (c) **discount rate** used; and
- (d) **calculation period** used.

DIVISION 2 **NON-TRANSMISSION SOLUTIONS**

15 **Approach to consideration of non-transmission solutions to meet investment need**

- (1) The approach to enabling consideration of whether one or more **non-transmission solution** may meet an **investment need** must take into account-
 - (a) the size and nature of the **investment need**; and
 - (b) the likelihood that **non-transmission solutions** could reasonably meet it.

- (2) The approach must enable the-
 - (a) reasonable information needs of interested persons, including potential proponents of **non-transmission solutions** to be met; and
 - (b) views of interested persons, including potential proponents of **non-transmission solutions** to be expressed and taken into account.
- (3) As a minimum, the approach must include the requirements that-
 - (a) when consulting on an **investment need**, **Transpower** must invite interested persons to provide views or information on or relevant to possible **non-transmission solutions** to meet that need;
 - (b) when developing its long list of options to consult on, **Transpower** must take those views and information into account to the extent they have been provided prior to or during the period in which the long list is developed, including pro-actively engaging with the parties providing them, where appropriate; and
 - (c) when consulting on a short list of **investment options** that includes a **non-transmission solution**, **Transpower** must invite interested persons to provide more comprehensive proposals in respect of that type of **non-transmission solution**.
- (4) The invitation described in subclause (3) must grant interested persons 6 weeks to respond, subject to subclause (5).
- (5) For the purpose of subclause (4), the approach may specify a longer or shorter period where appropriate in light of the factors specified in subclause (1).