[Draft] Transpower Capital Expenditure Input Methodology Amendments Determination 2018

[2018] xxxx

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

The Commission: 

Transpower Division
Sue Begg
Dr Stephen Gale
Elisabeth Welson

Date of decision: xxxx
<table>
<thead>
<tr>
<th>Determination date</th>
<th>Decision number</th>
<th>Determination name</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 January 2012</td>
<td>[2012] NZCC 2</td>
<td>Transpower Capital Expenditure Input Methodology Determination</td>
</tr>
<tr>
<td>2 February 2012</td>
<td>n/a</td>
<td>Error correction: repaired reference links in clause D1(2)(b)</td>
</tr>
<tr>
<td>27 November 2014</td>
<td>[2014] NZCC 34</td>
<td>Transpower Input Methodologies Amendments Determination 2014 (No. 2)</td>
</tr>
<tr>
<td>5 February 2015</td>
<td>[2015] NZCC 3</td>
<td>Transpower Input Methodologies Amendment Determination 2015</td>
</tr>
</tbody>
</table>
TRANSPower Capital ExPenditure Input
MethoDologies Amendments DeterMination 2018

Contents

1. Title
2. Interpretation
3. Determination Amended
4. Commencement and Application
5. Principal Determination Amendments
Pursuant to s 54S of the Commerce Act 1986, the Commerce Commission makes the following determination:

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

2. **INTERPRETATION**
   
   2.1 In this determination, the words or phrases in bold type bear the following meanings:

   (a) major capex project has the same meaning as in the principal determination;

   (b) major capex proposal has the same meaning as in the principal determination;

   (c) principal determination means the Transpower Capital Expenditure Input Methodology Determination [2012] NZCC 2 as in effect immediately before this determination comes into force;

   (d) RCP2 means the period commencing on 1 April 2015 and ending on 31 March 2020 to which the Transpower Individual Price-Quality Path Determination [2014] NZCC 35 applies.

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

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

   4.2 Amendments in this determination apply to the principal determination from the day this determination comes into force except-

   (a) subpart 2 of Part 3, clause 4.1.1, clause 6.1.1(7), clause B1, clause B2 and clause B7 of the principal determination will continue to apply in relation to RCP2;

   (b) clause 3.3.4, clause 3.3.7, clause 7.4.2, clause B4, clause B5 and Schedule H of the principal determination will continue to apply in relation to all major capex projects approved before this determination came into force; and
(c) Schedules C, D, G and I of the principal determination will continue to apply in relation to all major capex proposals submitted to the Commission for approval before this determination came into force.

4.3 Where clause 4.2 of this determination provides that a subpart, clause, or schedule of the principal determination will continue to apply, the amendments made by this determination to the mentioned clauses, subparts or schedules of the principal determination do not apply.

5. PRINCIPAL DETERMINATION AMENDMENTS

5.1 Replace the contents page of the principal determination with the contents page in Attachment A to this determination.

5.2 The amendments to the body of the principal determination are the deletions, substitutions and additions to the attached copy of the principal determination that are tracked in blue in Attachment B to this determination.
ATTACHMENT A

CONTENTS

PART 1 GENERAL PROVISIONS ................................................................. 99
PART 2 PROCESSES PRIOR TO A REGULATORY PERIOD ................................ 2424
  SUBPART 1 Integrated transmission plan .............................................. 2424
  SUBPART 2 Base capex ........................................................................ 2424
PART 3 PROCESSES DURING A REGULATORY PERIOD .............................. 2727
  SUBPART 1 Integrated transmission plan .............................................. 2727
  SUBPART 2 Base capex ........................................................................ 2727
  SUBPART 3 Major capex projects .......................................................... 3029
PART 4 [DELETED] .................................................................................. 3737
PART 5 CONSEQUENCES OF COMMISSION NOT COMPLYING WITH TIMEFRAMES ...... 3838
PART 6 COMMISSION EVALUATION OF MATTERS RELATING TO CAPITAL EXPENDITURE ................................................................. 3939
PART 7 INFORMATION REQUIREMENTS APPLYING TO TRANSPower .................. 4141
  SUBPART 1 General information requirements ...................................... 4141
  SUBPART 2 Integrated transmission plan .............................................. 4242
  SUBPART 3 Base capex ........................................................................ 4242
  SUBPART 4 Major capex ...................................................................... 4343
  SUBPART 5 Expected benefits and impact of proposed expenditure on transmission charges .......................................................... 4444
PART 8 CONSULTATION ........................................................................ 4645
PART 9 CERTIFICATION ......................................................................... 4847
  SUBPART 1 Base capex proposals .......................................................... 4847
  SUBPART 1A Listed project applications ................................................ 4847
  SUBPART 2 Major capex proposals ........................................................ 4847
  SUBPART 3 Major capex project amendment and sunk costs applications .......................................................... 4948
  SUBPART 4 Changes in opinion or matters of fact .................................... 4948
SCHEDULE A BASE CAPEX PROPOSAL - EVALUATION CRITERIA .................... 5150
SCHEDULE B REVENUE ADJUSTMENTS .................................................. 5666
  DIVISION 1 Base capex and grid output adjustments ............................. 5666
  DIVISION 2 Major capex adjustments .................................................... 6059
SCHEDULE C MAJOR CAPEX PROPOSAL - EVALUATION CRITERIA .............. 6362
SCHEDULE D MAJOR CAPEX - INVESTMENT TEST ................................... 6867
  DIVISION 1 Investment test ................................................................... 6867
  DIVISION 2 Meaning of terms used in investment test ............................ 6968
## SCHEDULE E: INTEGRATED TRANSMISSION PLAN

---

## SCHEDULE F: BASE CAPEX PROPOSAL - QUALITATIVE INFORMATION

---

## SCHEDULE G: MAJOR CAPEX PROPOSALS

---

## SCHEDULE H: INFORMATION REQUIREMENTS FOR AMENDMENT AND SUNK COSTS

### APPLICATIONS FOR MAJOR CAPEX PROJECTS

---

## SCHEDULE I: MAJOR CAPEX CONSULTATION REQUIREMENTS

### DIVISION 1: Consultation on options

---

### DIVISION 2: Non-transmission solutions

---

### DIVISION 3: MAJOR CAPEX PROJECTS (STAGED)

---
ATTACHMENT B:
PART 1 GENERAL PROVISIONS

1.1.1 Title
This determination is the Transpower Capital Expenditure Input Methodology Determination.

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

1.1.3 Commencement
(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.

1.1.4 Transitional provisions
(1) A major capex project approved by-
   (a) the Electricity Commission under Part F of the Electricity Governance Rules 2003; or
   (b) the Commission in accordance with s 54R(3)(b) of the Act,
will be treated for the purposes of this determination as a major capex project that has been approved by the Commission under clause 3.3.5.

(2) Where subclause (1) applies, in treating the approval by the Electricity Commission or the Commission in question as an approval under clause 3.3.5-
   (a) the quantum of approved major capex is-
      (i) the major capex allowance; or
      (ii) maximum recoverable costs;
      to the extent that the major capex relates to a transmission investment or non-transmission solution respectively;
   (b) any date specified as part of the approval as that on which the approval expires is the approval expiry date;
   (c) the quantum of any required outputs or deliverables are approved major capex project outputs;
   (d) any estimated cost adopted as part of approving the major capex project where the probability of the actual cost being lower than that estimated is 50% is the P50;
   (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.

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;

(d) unless stated otherwise, any reference to an allowance, amount, cost, rate, sum or value is a reference to an allowance, amount, cost, rate, sum or value calculated in relation to Transpower in respect of a disclosure year; and

(e) any reference to a period of time must be interpreted in accordance with section 35 of the Interpretation Act 1999.

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

**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 standard incentive rate base capex allowance** means the value \( b \) calculated as specified in clause B1(2);

**adjusted low incentive rate base capex allowance** means the value \( b^* \) calculated as specified in clause B1(3);

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

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

**application submission date** means the date by which Transpower plans to submit a major capex proposal;
approval expiry date means date on which the approval given by the Commission in respect of a major capex project under clause 3.3.5 expires;

approval timeframe means a timeframe for the Commission to approve a major capex project under clause 3.3.5 or amend an existing approval of an approved major capex project under clause 3.3.6;

approved major capex project means a major capex project approved by the Commission;

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

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

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

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

asset performance measure means a grid output 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

d base capex means capital expenditure that-

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

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

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

d 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;

d base capex expenditure adjustment means the amount calculated as specified in clause B1;

d base capex low incentive rate means 15%;

Commented [TP4]: We note that the specific exclusion of non-transmission solutions has been removed. Does this indicate an intention to allow transmission alternatives to be funded from base capex? If so, similar changes as we propose to the definition of major capex will also be required.

Commented [TP5]: These words imply that the E & D project or programme must already be contemplated in the base capex allowance. This will not be possible for new projects and programmes that are triggered.

Commented [TP6]: It is unlikely we will have sufficient planning certainty over 5 years to stipulate pre-set amounts.

Commented [TP7]: It is unlikely we will have sufficient planning certainty over 5 years to stipulate defined thresholds.

Commented [TP8]: This revised wording now corresponds to the wording in Schedules A and F, about the criteria for the base capex allowance adjustment mechanism.
base capex standard incentive rate means 33%;
base capex programme means a programme of base capex;
base capex project means a project of base capex;
base capex proposal means information submitted by Transpower to the Commission for the purpose of the Commission determining the things specified in clauses 2.2.2;
base capex standard incentive rate means 33%;
base capex threshold means $20 million;
business support means costs not directly incurred in relation to the grid and incurred in relation to:
  (a) information system and technology assets;
  (b) office buildings;
  (c) depots and workshops;
  (d) office furniture and equipment;
  (e) motor vehicles; or
  (f) tools, plant and machinery;

C
calculation period means 20 year period commencing on the commissioning date of the last asset to be delivered by the proposed investment, save that where significant electricity market benefit or cost elements and project costs are expected to-
  (g) cease to arise or be incurred during that period; or
  (h) 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 or capex means costs that 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;
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;

Commented [TP9]: These terms are used but were not defined.
Commented [TP10]: Moved to alphabetical order.
Commented [TP11]: Is it sensible to have a different definition of capital expenditure in the Capex IM and the Transpower IMs? Contrast with the definition of "operating expenditure" in the Capex IM.
**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** or any **staging project(s)**, as applicable;

**committed project** has meaning specified in clause D8;

**competition effects** has the meaning specified in clause D5;

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

**completion date** means 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 s 52C of the **Act**;

**CPI** means-

(a) subject to paragraph (c), in respect of the December 2010 quarter and subsequent quarters, the consumer price index stipulated in the ‘All Groups Index SE9A’ as published by Statistics New Zealand;

(b) subject to paragraph (c), in respect of each quarter prior to the December 2010 quarter, the same index as described in paragraph (a) multiplied by 1.02; and

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

**D**

**decommissioned asset** has the meaning specified in clause D8;

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

**demand and generation scenario variation** has the meaning specified in clause D3(2).
director means individual occupying the position of director in the company, by whatever name that position is called;
disclosure year means 12 month period ending on 30 June;

disclosure year means 12 month period ending on 30 June 2012;
disclosure year means 12 month period ending on 30 June 2012;
document has the meaning specified in clause D6(3);
document means the same meaning as defined in s 2 of the Act;

electricity market benefit or cost element has the meaning specified in clause D4(1);
electricity transmission services means electricity lines services (as ‘electricity lines services’ is defined in s 54C of the Act) supplied by Transpower;

exempt base capex means an amount of approved or actual base capex to which the base capex standard incentive rate or base capex low incentive rate does not apply, which may be expressed by reference to a category of expenditure within a project or programme of base capex, because it relates to cost elements that can vary significantly due to factors beyond the control of Transpower;
exempt major capex means an amount of approved or actual the major capex allowance to which the major capex incentive rate does not apply, which may be expressed by reference to a category of expenditure within a major capex project or staging project, as determined by the Commission under clause 3.3.5(8);
existing asset has the meaning specified in clause D8;

expected net electricity market benefit has the meaning specified in clause D2(1);
forecast CPI means CPI, unless CPI does not apply to the period in question, in which case it means the most recent CPI extended by-

(a) in the case of a quarter for which a forecast of the annual percent change in the headline CPI contained in the current Monetary Policy Statement issued by the Reserve Bank of New Zealand has been made, that forecast; and

(b) in respect of later quarters, the forecast last applying under paragraph (a) adjusted such that an equal increment or decrement made to that forecast for each of the following three years results in the forecast for the last of those years being equal to the target midpoint for the change in headline CPI set out in the Monetary Policy Statement referred to in paragraph (a);

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

generator has the same meaning as defined in the code;
good electricity industry practice has the same meaning as specified in the code;
grid has the same meaning as specified in the code;
grid output means the output in respect of a particular grid output measure;
grid output adjustment means the amount calculated as specified in clause B2;
grid output incentive rate means 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 an increase in grid output is intended to result in a decrease in revenue;

grid output measure means a measure that quantifies the output or benefit (where "benefit" may include reduction in risk) delivered by the grid, investment in the grid, or expenditure facilitating or enabling future investment in the grid;
grid output mechanism means the formula by which the grid output adjustment is calculated, as specified in the table in clause B2(1);
grid output target means the quantum of output at which the grid output adjustment will be nil;
grid reliability standards has the same meaning as specified in Schedule 12.2 to the code;

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

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

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

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

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

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

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

investment need means need for grid investment;

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

investment test means 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;

listed project means a base capex project or base capex programme that is specified as a ‘listed project’ under clause 2.2.2(6);
low incentive rate base capex allowance means the amount subject to the base capex low incentive rate as determined under clause 2.2.2 (1)(a);

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

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

M

major capex means expenditure capital expenditure that-

(a) is incurred to:
   (i) meet the grid reliability standards; or
   (ii) provide a net electricity market benefit; and

(b) is forecast to be-
   (i) capital expenditure included in a project or programme whose aggregate forecast capital expenditure exceeds the base capex threshold (subject to clause B.3.3(2)); or
   (ii) expenditure on a non-transmission solution; and

(c) is not incurred in relation to any of the following things:
   (i) asset replacement;
   (ii) asset refurbishment;
   (iii) business support; or
   (iv) information system and technology assets;

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

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

major capex incentive rate means 15% or an alternative rate determined by the Commission in respect of a approved major capex project under clause 3.3.5(9);

major capex project means a project of major capex undertaken to address or enable one or more specific investment needs to be met, which:

(a) may be either or both, a transmission investment, or non-transmission solution or both; and

(b) may consist of one or more staging projects.
**major capex project outputs** means the grid outputs applying in respect of a proposed investment contained in a major capex proposal;

**major capex project (staged)** means a project of major capex consisting of two or more sub-projects that the Commission may approve separately and has approved in stages as a major capex project (staged) and includes any major capex project where such major capex project includes the final staging projects of any previously approved major capex project (staged);

**major capex proposal** means a written application to the Commission for approval of a major capex project which may in the case of a major capex project (staged) include an application for approval of one or more staging projects;

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

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

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

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

**net electricity market benefit** has the meaning specified in clause D2(2);

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

(a) the other person has agreed in writing (whether in the same contract or not) that the terms and conditions of the contract-

(i) are reasonable; or

(ii) reflect workable or effective competition for the provision of the electricity transmission services; or

(b) Transpower demonstrates beyond a reasonable doubt that the terms and conditions of the contract were arrived at following a process that provided opportunities for-

(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;

Commented [TP22]: The Capex IM as drafted contemplates approval of both a major capex project (staged) and each of its stages. However, a major capex project (staged) cannot be approved separately from its stages. We consider the policy intent is to NOT approve all stages of a major capex project.

To remove this logical inconsistency, we propose:

- de-linking the definitions of major capex project and major capex project (staged); and

- treating a major capex project relating to a stage of a major capex project (staged) as the set of relevant staging sub-projects for which approval is sought.

This approach simplifies the drafting of the Capex IM. For example, references to "major capex project or the relevant staging projects, as applicable" shortens to "major capex project".

If there are more than one stage then different investment needs may be addressed by staging.

Commented [TP23]: The Capex IM is not consistent in how cross references are specified. For example, the cross-reference in "net electricity market benefit" below uses the sub-clause.
non-transmission solution means an alternative to an investment in the grid, which is used by Transpower to-

(a) avoid or defer a transmission investment, where the transmission investment would be major capex;

(b) manages operational risks due to unavailability of assets while a major capex project is in progress; or

(c) manages operational risks such as network constraints due to temporary unavailability of grid network assets;

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 s 53ZD notice requiring information on proposed operating expenditure in respect of the IPP for the next regulatory period;

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

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

(a) asset management;

(b) asset security;

(c) augmentation and planning;

(d) business cases, including cost-benefit analyses;

(e) capital expenditure (e.g. capital expenditure approval and replacement);

(f) condition monitoring and replacement;

(g) corporate governance;

(h) demand management;

(i) disaster recovery;

(j) energy supply and consumer growth forecasting;

(k) information technology;

Commented [TP24]: We think the intent is to limit this paragraph to operational risks due to temporary grid outages, rather than having that as an example only.

Commented [TP25]: We only manage the grid.

Commented [TP26]: Linking this definition with the definition of "project cost".
(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;

principal determination means the Transpower Capital Expenditure Methodology Determination [2012] NZCC 2 as in effect immediately before this determination comes into force;

programme means-
(a) 2 or more projects; or
(b) 2 or more projects and expenditure activities,
within the same category of capital expenditure that are grouped together on the basis of having a common purpose;

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

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

proposed investment means the investment option that Transpower submits in a major capex proposal for approval by the Commission as a major capex project;

R

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 D3(4);

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

S

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

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

**sensitivity analysis** has the meaning specified in clause D7;

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

**staging project** means a *sub-project* within a *major capex project (staged)*;

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

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

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

**system operator** has the same meaning as defined in section 5 of the Electricity Industry Act 2010;
transmission alternative means an alternative to an investment in the grid, which is non-capex solution used by Transpower to:

(a) avoid or defer a transmission investment, where the transmission investment would be need for base capex;

(b) manage operational risks due to unavailability of assets while a base capex project is in progress; or

(c) manage operational risks or network constraints due to temporary unavailability of grid assets;

transmission charges means the charges paid by consumers to Transpower for connection to and use of the grid, calculated in accordance with the transmission pricing methodology in Schedule 12.4 of Part 12 of the code;

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

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

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);

working day has the same meaning as defined in section 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 publish the information submitted to the Commission under subclause (1) on its website.

SUBPART 2  Base capex

2.2.1  Required information

(1) In the period commencing on the first working day in the November which is twenty-nine months before the start of a regulatory period, and terminating on the last working day in the February which is twenty-six months before the start of a regulatory period, the Commission and Transpower must use reasonable endeavours to agree, in respect of that next regulatory period:

(a) the form and content of regulatory templates; and

(b) the categories or criteria to be used to define identified programmes.

(2) Where no agreement is reached on one or more of the matters specified in subclause (1), the Commission must, having regard to the views Transpower expressed during the period referred to in subclause (1), specify those matters and notify Transpower thereof by the last working day in the March which is twenty-five months before the start of a regulatory period.

(3) Transpower must submit a base capex proposal prepared in accordance with Part 7 to the Commission no later than the first working day in the December which is sixteen months before the start of a regulatory period.

2.2.2  Commission evaluation and decisions

(1) No later than the last working day in the August which is eight months before the start of a regulatory period, the Commission will, subject to subclause (10), determine in respect of that regulatory period, for the purposes of making an IPP determination:

(a) a standard incentive rate base capex allowance and, if applicable, a low incentive rate base capex allowance for each disclosure year of the regulatory period;
(b) in accordance with clauses A6 and A7, the following as **revenue-linked grid output measures**-
   (i) one or more **asset performance measures**;
   (ii) one or more **measures of grid performance**;
   (iii) if Transpower requests, one or more **asset capability grid output measures**; and
   (iv) if Transpower’s requests, any other **grid output measure**;

(c) one or more **asset health grid output measures** which may be either **revenue-linked grid output measures** in accordance with clauses A6 and A7, or **grid output measure(s)** that are not linked to revenue in accordance with clause A5;

(d) in accordance with clause A7, in respect of each **revenue-linked grid output measure**, a-
   (i) **cap**;
   (ii) **collar**;
   (iii) **grid output incentive rate**; and
   (iv) **grid output target**.

(2) When determining the **base capex allowances** in subclause (1)(a), the **Commission** will also specify the-
   (a) **low incentive rate base capex projects** if it determines a **low incentive rate base capex allowance**;
   (b) **forecast CPI** used to determine the **base capex allowances**;
   (c) **forecast FX rates** used to determine the **base capex allowances**; and
   (d) **amount or percentage of the base capex allowances** to which the **forecast FX rates** may apply; and

(3) A **base capex project or base capex programme** may be specified as a **low incentive rate base capex project** by the **Commission** if it considers that it will require **capital expenditure** greater than $20 million.

(4) When determining the **revenue-linked grid output measures** in subclause (1)(b), the **Commission** may also determine in accordance with clause A5 one or more of the same types of **grid output measures** that are not linked to revenue.

(5) When determining the **standard incentive rate base capex allowance** the **Commission** may specify a **base capex allowance adjustment mechanism**.
At the same time as determining the matters in sub clause (1), the Commission may, subject to sub clause (10), determine in respect of the regulatory period, for the purposes of making the IPP determination, also specify base capex projects or base capex programmes that are listed projects.

When determining the listed projects in sub clause (6), the Commission will also specify the exempt base capex for the listed projects.

A base capex project or base capex programme may only be determined to be a listed project by the Commission if it is a base capex project or base capex programme:

(a) that the Commission considers:
   (i) will require capital expenditure greater than $20 million;
   (ii) is reasonably required by Transpower; and
   (iii) at least one asset is likely to have a commissioning date be commissioned in the regulatory period; and

(b) for which the base capex forecast to be incurred is in relation to asset replacement, asset refurbishment, or both asset replacement and asset refurbishment; and

(c) for which a commencement date within the regulatory period is anticipated but cannot be forecast with specificity; and

(d) that is not already accommodated in the base capex allowances for the regulatory period.

The incentive rate for listed projects is determined by the Commission at the time any additional allowance is approved for a listed project.

Where the Commission considers that, for the purpose of deciding the matters specified in this clause, it requires further information from Transpower, the Commission will request Transpower to provide such information by a reasonable future date.

The Commission will only make the determinations specified in this clause after-

(a) consulting in any manner specified in clause 8.1.1; and

(b) evaluating in accordance with Part 6-
   (i) the base capex proposal; and
   (ii) any further information received pursuant to sub clauses (9).

The Commission will publish its decisions under this clause as soon as reasonably practicable after they have been made.
PART 3 PROCESSES DURING A REGULATORY PERIOD

SUBPART 1 Integrated transmission plan

3.1.1 Integrated transmission plan

(1) Subject to subclause sub clause (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 publish a copy of the information submitted to the Commission under subclause sub clause (1) on its website.

SUBPART 2 Base capex

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

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

3.2.2 Base capex annual adjustments

(1) By the 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; and
   (b) grid output adjustment.

(2) Where the Commission considers that it requires further information for the purpose of calculating the adjustments in subclauses sub clause (1), it will request Transpower to provide such information by a reasonable future date.
The Commission will not calculate the adjustments in subclause (1) until after having evaluated relevant information disclosed pursuant to:

(a) a request made pursuant to subclause (2);
(b) an ID determination; or
(c) a s 327 notice.

(4) The Commission will publish its decision under this clause as soon as reasonably practicable.

3.2.3 Approval of base capex in addition to the base capex allowances

(1) Transpower may submit, no later than the last working day in the June twenty-two months before the end of a regulatory period, an application for approval of additional base capex relating to assets forecast to be commissioned within that regulatory period in respect of a listed project to be recognised as approved base capex for any of the disclosure years that follow the disclosure year of approval.

(2) Transpower’s application under subclause (1) must include:

(a) a description of the reasons for carrying out the listed project, supported by relevant technical information, including evidence of the current and future need for the applicable assets by reference to the relevant demand and generation scenarios in clause D3;
(b) consideration of alternative options for carrying out the listed project, including non-replacement and demolition, enhancement or development of alternative assets, and transmission alternatives;
(c) intended scope of the listed project, including specification of the grid outputs that apply in respect of the listed project;
(d) all relevant technical and costing information used to estimate both the cost of the listed project and alternative options, including details on risk allowances and contingencies;
(e) estimated cost of the listed project broken down into year by year figures in expected disclosure year of expenditure, and the assumptions used to derive the estimated cost;
(f) a cost-benefit analysis in accordance with clause 3.2.1(a), including a sensitivity analysis and reasons for selecting the variables of the sensitivity analysis;
(g) if it requests the base capex low incentive rate to apply to the additional base capex, information demonstrating that the listed project is still expected to require capital expenditure greater than $20 million and information on the extent to which the factors set out in clause Schedule A4(a) and (b) are applicable.

Commented [TP41]: Why can’t the additional base capex be approved for the disclosure year of approval? Also, inconsistent with sub clause (4).

Commented [TP42]: “Relevant demand and generation scenarios” includes variations to the MBIE scenarios. We have made this correction at several places in the Capex IM.

Commented [TP43]: We consider the framework for listed project with transmission alternatives should mirror the framework for major capex with non-transmission solutions (NTS). Under major capex, NTS is funded by recoverable costs. However, the listed project framework currently has no process for funding for transmission alternatives.
(h) evidence of consultation with interested persons in accordance with clause 3.2.1(b);

(i) evidence that its Board of Directors has approved the listed project as a base capex project or base capex programme and that the business case approved by Transpower’s Board included a quality assurance checklist in respect of the listed project; and

(j) certification of the application in accordance with clause 9.1.2.

(3) Where the Commission considers that, for the purpose of deciding whether to approve additional base capex in respect of a listed project it requires further information than that provided in Transpower’s application, the Commission will request Transpower to provide such information by a reasonable future date.

(4) The Commission may in addition to the base capex allowances, at its discretion, determine an approved additional amount of base capex in respect of a listed project for disclosure years in a regulatory period, following evaluation of Transpower’s application, in accordance with:

(a) the consultation requirements in clause 8.1.1 that would apply if this application was part of the base capex proposal; and

(b) the criteria in clause 6.1.1(1), clause 6.1.1(2) and clause A2 that would apply if this application were part of the base capex proposal and the listed project were an identified programme.

(5) In any decision to approve additional base capex in respect of a listed project, the Commission will—

(a) apply the forecast CPI used to determine the base capex allowances for that regulatory period to the approved additional base capex for the listed project;

(b) apply the forecast FX rates used to determine the base capex allowances for that regulatory period to the approved additional base capex for the listed project;

(c) determine the amount or percentage of the additional base capex for the listed project to which the forecast FX rates may apply;

(d) determine whether the base capex standard incentive rate or base capex low incentive rate applies to the additional base capex; and

(e) determine whether there is any exempt base capex for the listed project in addition to the exempt base capex specified under clause 2.2.2(7) and, if so, that exempt base capex.

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

Commented [TP44]: Unclear what a “quality assurance checklist in respect of the listed project” is or is intended to be.

Commented [TP45]: See comment on sub clause (1).

Commented [TP46]: These words were deleted but we have reinstated because they are needed to make sense of the cross-references.

Commented [TP47]: See comment on the definition of major capex incentive rate. There is not an obvious reason to use “specify” in sub clause (c) and “determine” in sub clause (d).
SUBPART 3  Major capex projects

3.3.1 Notification of proposed investments

(1) Transpower must notify the Commission of its intention to plan a major capex project that may become a proposed investment.

(2) Transpower’s notification under subclause (1) must include the following detail about the major capex project if it relates to a stage of major capex project (staged):
   
   (a) whether it is proposed to be a major capex project (staged), and if so, all the proposed staging projects of the major capex project (staged);
   
   (b) the staging projects of the major capex project (staged) planned to comprise the major capex project being planned; and
   
   (c) if it is related to a previously approved major capex project (staged), all previously approved staging projects of the major capex project (staged) and whether those staging projects have been completed.

(3) The Commission and Transpower must, in the two month period following a notification, under subclause (1) use reasonable endeavours to agree in respect of that major capex project:

   (a) a consultation programme for a transmission investment or 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 giving rise to the major capex project in accordance with clause 8.1.3;

   (c) an application submission date; and

   (d) an approval timeframe.

(4) Where the Commission and Transpower have not agreed on each of the matters in subclause (3) within the two month period following a notification under subclause (1), the Commission must, after considering the views expressed by Transpower, specify those matters that have not been agreed within two weeks of the expiry of the two month period.

(5) The consultation programme referred to in subclause (3)(a) may also include any consultation processes that the Commission intends to follow.

(6) The Commission and Transpower must publish the matters agreed under subclause (3) or specified under subclause (4) as soon as reasonably practicable.

(7) The Commission and Transpower must regularly review whether the matters published under subclause (6) (or published in amended form under subclause (8)) remain appropriate and reasonable and the Commission may, after considering
Transpower’s views, amend any of those matters to ensure that they remain appropriate and reasonable.

(8) Where the Commission materially amends any of the matters under subclause (7), the Commission and Transpower must publish the amended matters or a summary of them as soon as reasonably practicable.

(9) Transpower must consult interested persons in accordance with the published consultation programme and follow the published approach for consideration of non-transmission solutions.

3.3.2 Capital expenditure that can be recovered

(1) Major capex projects must be approved by the Commission before Transpower can recover any capital expenditure relating to a major capex project.

(2) Where a major capex project relating to a stage of a major capex project (staged) is approved as a major capex project (staged), Transpower may only recover capital expenditure relating to the approved staging projects and not any other staging projects of that major capex project (staged) that have not been approved.

3.3.3 Major capex proposals

(1) Transpower must submit a major capex proposal to the Commission when it seeks approval for a major capex project or staging project.

(2) Where Transpower seeks approval for a major capex project relating to a stage of a major capex project (staged) and one or more staging projects-

(a) the aggregate forecast capital expenditure for all staging projects of the major capex project (staged) must exceed the base capex threshold;

(b) the aggregate forecast capital expenditure for the major capex project need not exceed the base capex threshold; and

(c) for the purposes of the Commission determining the matters listed in clauses 3.3.5(7) and 3.3.5(8) in respect of the major capex projects such staging projects, the proposed major capex allowance or maximum recoverable costs for the staging projects for which approval is sought need not exceed the base capex threshold.

(3) Any application by Transpower to the Commission for approval of a subsequent stage of a major capex project (staged) must be made in a new major capex proposal.

(4) A major capex proposal may be submitted at any time during a regulatory period.

3.3.4 Commission rejection of a major capex proposal

(1) The Commission may reject a major capex proposal where-
(a) Transpower has not complied with the requirements specified in clause 3.3.1; or
(b) the major capex proposal does not comply with clause 7.4.1.

3.3.5 Commission decisions on a major capex project

(1) If the Commission does not reject the major capex proposal under clause 3.3.4, it must either-
   (a) approve the major capex project, and if it is a major capex project (staged), one or more staging projects; or
   (b) decline the major capex project.

(2) For the avoidance of doubt, where Transpower has sought approval for a major capex project the Commission may approve such project as a major capex project even where the major capex allowance it approves is below the base capex threshold.

(3) The Commission may only approve a staging project where the investment test is met for all remaining stages of the relevant major capex project (staged).

(4) When evaluating a new major capex proposal seeking approval for a stage of a major capex project that relates to a previously approved major capex project (staged), the Commission may have regard to the information in any previous major capex proposal relating to the major capex project (staged).

(5) Where the Commission considers that it requires further information to decide whether to approve or decline a major capex project it will request Transpower to provide such information by a reasonable future date.

(6) The Commission may only decide to approve or decline a major capex project after-
   (a) having evaluated, in accordance with Part 6 and subject to clause 3.3.5(4) -
      (i) the major capex proposal; and
      (ii) any further information received pursuant to subclause (5).

(7) Where the Commission approves a major capex project the-
   (a) maximum recoverable costs;
   (b) recovery scheme;
   (c) approved major capex project outputs;
   (d) approval expiry date;
   (e) commissioning date assumption; and
   (f) completion date assumption,
will be those specified by Transpower for the major capex project or approved staging project(s), as applicable.

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

will be those specified by the Commission for the major capex project or approved staging project(s), as applicable.

(9) The major capex incentive rate for any approved major capex projects is 15% unless a different rate is specified by the Commission.

(10) The Commission will publish its decisions as soon as reasonably practicable after they have been made.

3.3.6 Amendments to approved major capex projects

(1) The Commission may, on Transpower’s application, amend one or more of the following matters previously approved under clause 3.3.5-
   (a) maximum recoverable costs;
   (b) recovery scheme;
   (c) approved major capex project outputs; and
   (d) approval expiry date.

(2) Where Transpower makes an application under subclause (1)-
   (a) Transpower must comply with the requirements in clause 7.4.2;
   (b) the Commission and Transpower must use reasonable endeavours to agree an approval timeframe in respect of the application within two weeks from the date of receipt of the application; and
   (c) where the Commission and Transpower have not agreed an approval timeframe within the two weeks period, the Commission must, after considering Transpower’s views and having regard to its obligations in subclauses (3) to (5), specify the approval timeframes within two weeks of the expiry of the two week period.

(3) The Commission must make reasonable efforts to determine any amendments within the following timeframes-
   (a) For amendments to an approval expiry date, by no later than the approval expiry date previously approved; and
   (b) For amendments to any other matter specified in subclause (1), 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 the Commission considers that it requires further information to decide whether to make an amendment it will request Transpower to provide such information by a reasonable future date.

(5) The Commission may not make an amendment until it has evaluated, in accordance with Part 6-

(a) the application received from Transpower under subclause (1); and

(b) any information received pursuant to subclause (4).

(6) Where an amendment is made by the Commission the amended-

(a) maximum recoverable costs; and

(b) recovery scheme;

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

(7) Where an amendment is made by the Commission the amended-

(a) approved major capex project outputs; and

(b) approval expiry date,

will be those proposed by Transpower in its amendment application.

(8) Where the Commission makes an amendment to the approved major capex project outputs, the Commission may, at its discretion, make commensurate amendments to the major capex allowance and exempt major capex.

(9) Where the Commission makes any amendment, the Commission may also make amendments to the-

(a) commissioning date assumption; and

(b) completion date assumption.

(10) The Commission will publish its decisions as soon as reasonably practicable after they have been made.

3.3.7 Major capex sunk costs adjustment

(1) The Commission may, at its discretion, on Transpower’s application, calculate a major capex sunk costs adjustment where Transpower has incurred capital expenditure in relation to an approved major capex project, but prior to the commissioning date or completion date of the approved major capex project -

(a) Transpower has decided not to proceed with the approved major capex project; or
(b) a relevant approval expiry date has passed.

(2) Where Transpower makes an application it must comply with the requirements in clause 7.4.3.

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

(4) Where the Commission considers that it requires further information to decide whether to calculate a major capex sunk costs adjustment it will request Transpower to provide such information by a reasonable future date.

(5) The Commission may not decide whether to calculate a major capex sunk costs adjustment until it has evaluated, in accordance with Part 6-

   (a) the application; and

   (b) any information received pursuant to subclause (4).

(6) Where the Commission calculates a major capex sunk costs adjustment in respect of an approved major capex project any approval of the major capex project or staging project, as applicable, is deemed to be revoked.

(7) The Commission will publish its decision as soon as reasonably practicable.

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

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

(2) The Commission may not decide whether the approved major capex project outputs were met until it has evaluated, to the extent relevant to the decision-

   (a) the information disclosed by Transpower in respect of the last completed disclosure year pursuant to either or both of-

      (i) an ID determination; or

      (ii) a s 532D notice; and

   (b) any information received pursuant to subclause (3).

(3) Where the Commission considers that it requires further information to decide whether approved major capex project outputs were met it will request Transpower to provide such information by a reasonable future date.

(4) The Commission will publish its decisions as soon as reasonably practicable.
3.3.9 Major capex expenditure and output adjustments

(1) If an approved major capex project is a:
   
   (a) transmission investment and the last asset delivered by the project has a commissioning date in that disclosure year; or
   
   (b) non-transmission solution, and it has a completion date in that disclosure year;

   then the Commission will calculate, by the last working day of the first November after that disclosure year, the amount of the major capex expenditure and output adjustment in respect of that approved major capex project.

(2) The Commission will not calculate the adjustments 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 53ZD notice;

   (b) any application under clause 3.3.6 relevant to the calculations; and
   
   (c) any information received pursuant to subclause (3).

(3) Where the Commission considers that, for the purpose of making any of the calculations referred to in subclause (1), it requires further information than that referred to in subclause (2)(a) and (b), the Commission will request Transpower to provide such information by a reasonable future date.

(4) The Commission will publish its decisions as soon as reasonably practicable after they have been made.

Commented [TP55]: This sub clause should be redrafted because it refers to “that disclosure year” before establishing what disclosure year is being talked about. Contrast with clause 3.3.8(1).

Commented [TP56]: The wording of sub clauses (2) and (3) is inconsistent with the wording of the equivalent sub clauses in clauses 3.3.7 and 3.3.8. It would be better if it was consistent.

Regarding sub clause (2), there will never be more than one adjustment or calculation per approved major capex project.
PART 4 [DELETED]
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 3.3.5:
   (a) whether what is proposed is consistent with the input methodology 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 3.3.5 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

Commented [TP57]: All references to clause 3.3.5 should be to clause 3.3.6.
(ii) the reasonableness and extent of mitigation actions taken by Transpower;

(c) the extent to which the major capex project’s expected net electricity market benefit would be materially lower as a result of the amendment than when it was approved; and

(d) in respect of a major capex project that has already commenced, the extent to which Transpower has incurred capital expenditure by the date of the application.

(6) The Commission will also evaluate an application under clause 3.3.7 relating to the calculation of a major capex sunk costs adjustment in accordance with the following criteria:

(a) the reasons and key factors that resulted in Transpower applying for the major capex sunk costs adjustment;

(b) in relation to each such key factor, whether it-
   
   (i) was reasonably foreseeable by Transpower before the major capex project was approved by the Commission; and
   
   (ii) was or is within Transpower’s control;

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

(d) the reasonableness of the progress of the major capex project, including details of-
   
   (i) planning processes undertaken;
   
   (ii) resource management consents, other regulatory consents, and property rights and access rights obtained;
   
   (iii) construction and labour contracts and arrangements made;
   
   (iv) construction completed;
   
   (v) testing undertaken; and
   
   (vi) approved major capex project outputs delivered; and

(e) the reasonableness of the major capex incurred and the extent of the forecast major capex yet to be incurred.
PART 7 INFORMATION REQUIREMENTS APPLYING TO TRANSPOWER

SUBPART 1 General information requirements

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

7.1.2 Information claimed to be confidential
(1) Where Transpower considers that it has a right to confidentiality in any information it provides the Commission pursuant to this Part and it does not waive that right, it must-
   (a) include that information in an appendix; and
   (b) clearly mark it as confidential.
(2) For the avoidance of doubt-
   (a) nothing in subclause (1) prevents the Commission publishing such information in respect of which it considers Transpower has no right to confidentiality; and
   (b) nothing in paragraph (a) affects Transpower’s rights or remedies for breach of any right to confidentiality.
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.
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 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 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 clause 3.3.5(7)(a) to 3.3.5(7)(c) must be received by the Commission by the last working day of the September after the disclosure year in which the commissioning date or completion date of the major capex project in question occurs.

(2)  An application under clause 3.3.5(7)(d) must be received by the Commission no later than 6 weeks before the approval expiry date of the major capex project in question.

(3)  An application under-

   (a)  clause 3.3.5(7)(a) and 3.3.5(7)(b) must contain the information specified in Schedule H Division 1;
   (b)  clause 3.3.5(7)(c) must contain the information specified in Schedule H Division 2; and
   (c)  clause 3.3.5(7)(d) must contain the information specified in Schedule H Division 3.

(4)  An application under clause 3.3.5 must contain the certificates specified in clause 9.3.1.

(5)  For the avoidance of doubt, one physical document may contain more than one of the certifications specified in clause 9.3.1.

7.4.3  Sunk costs applications

(1)  Subject to subclause (2), an application under clause 3.3.7 must-
(a) be received by the Commission no later than 6 weeks after the approval expiry date;
(b) contain the information specified in Schedule H Division 4; and
(c) contain the certificates specified in clause 9.3.1.

(2) For the 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).

(3) For the avoidance of doubt, one physical document may contain more than one of the certifications specified in clause 9.3.1.

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

7.5.1 Explanation of the expected benefits of proposed expenditure and its impact on transmission charges

(1) All major capex proposals and listed project applications must include-

(a) a description of the expected service benefits that will be delivered by the proposed investment or listed project proposed investment;
(b) a description of the expected system benefits that will be delivered by the proposed investment or listed project proposed investment;
(c) to the extent reasonably possible, a quantitative estimate of the expected system benefits; and
(d) details of an estimate of the expected increase in transmission charges or transmission charges to consumers due to the proposed investment or listed project proposed investments, including, to the extent reasonably possible, the expected estimated increases in-
   (i) grid transmission charges transmission charges per kilowatt of demand;
   (ii) transmission charges transmission charges per kilowatt hours of energy supplied; and
   (iii) transmission charges for each affected grid exit point and grid injection point.

(2) At the same time as Transpower submits a base capex proposal for a regulatory period to the Commission, Transpower must submit to the Commission All expenditure proposals submitted by Transpower for the purpose of the Commission making an IPP determination must include—

Commented [TP62]: The relevant proposal/application will already contain a description and, where possible, quantification of the benefits of the investment. Sub clauses (a) to (c) are probably redundant on that basis.

We are still unclear about the difference between service benefits and system benefits. If these sub clauses are retained we suggest they just refer to benefits instead of making the distinction.

System (and service) benefits may not be reasonably capable of quantification.

Commented [TP63]: "Details" implies a level of precision we will not be able to achieve.

Commented [TP64]: We propose making this a defined term.

Commented [TP65]: This wording is used in sub clause (2) and should be used here as well.

Commented [TP66]: The information the Commission wants is not linked solely to the base capex proposal or the opex proposal because it is a function of total revenue. We suggest a reference to the base capex proposal is retained but only to establish a time for the information.
(a) an estimate of expected transmission charges allocated to each grid exit point and grid injection point based on forecast transmission revenue for each disclosure year of the regulatory period;

(b) to the extent reasonably possible, for each disclosure year of the regulatory period, an estimate of expected—

(i) transmission charges per kilowatt of demand; and

(ii) transmission charges per kilowatt-hour of energy supplied; and

(c) a description of the expected system and/or service benefits that will be delivered by elements of Transpower’s proposed expenditure over the regulatory period.
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 following actions-
      (i) publish the relevant proposal or application;
      (ii) make and publish a draft decision or decisions;
      (iii) seek the written views of interested persons on anything so published; and
      (iv) seek the written views of interested persons on others’ submissions; and
   (b) may seek the views of any person the Commission considers has expertise on a relevant matter, take any of the following actions:
      (i) seek the views of any person the Commission considers has expertise on a relevant matter; and
      (ii) seek the written views of interested persons on others’ submissions.
(2) The Commission may take none, any or all of the actions listed in subclause 8.1.1 in evaluating applications received from Transpower or making decisions or calculations under:
   (a) clause 3.3.6;
   (b) clause 3.3.7;
   (c) clause 3.3.8; or
   (d) clause 3.3.9.
(3) Where the Commission takes any of the actions referred to in subclause (1), it may do so in accordance with such timeframes and processes as it considers appropriate.

8.1.2 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(3), 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
In relation to all information provided in accordance with the regulatory templates and Schedule F with respect to a base capex proposal, no fewer than 2 directors of Transpower must each certify in writing, that having made all reasonable enquiries, it is his or her belief that-

(a) the information was derived from and accurately represents, in all material respects, the operations of Transpower; and

(b) the base capex proposal complies, in all material respects, with the requirements of clause 7.3.1.

SUBPART 1A  Listed project applications

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

(a) the information provided in Transpower’s application to the Commission was derived from and accurately represents, in all material respects, the relevant operations of Transpower; and

(b) the base capex in respect of the listed project was approved by Transpower in accordance with the applicable requirements of Transpower’s director and management capital expenditure approval policies.

SUBPART 2  Major capex proposals

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

(a) the information was derived from and accurately represents, in all material respects, the operations of Transpower;

(b) the proposed investment to which the information relates was approved in accordance with the applicable requirements of Transpower’s director and management approval policies; and

Commented [TP71]: Why is Director certification required for the base capex proposal whereas Chief Executive certification is sufficient for everything else? The base capex proposal should only require CEO certification, part of which would be certification as to compliance with Director and Management approval policies.

Commented [TP72]: For consistency with the certifications in Subparts 2 and 3. Alternatively, those Subparts could be made consistent with this wording.
(c) the major capex proposal complies, in all material respects, with the requirements of clause 7.4.1.

SUBPART 3 Major capex project amendment and sunk costs applications

9.3.1 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 an approved major capex project; or

(b) an application for a major capex sunk costs adjustment,

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

(c) the information was derived from and accurately represents, in all material respects, the operations of Transpower;

(d) all parts of the major capex project to which the information relates have been approved in accordance with the applicable requirements of Transpower’s director and management approval policies; and

(e) the application complies, in all material respects, with the requirements of clause 7.4.2 or clause 7.4.3, as the case may be.

SUBPART 4 Changes in opinion or matters of fact

9.4.1 Changes in opinion or matters of fact

(1) Where-

(a) a director or chief executive officer of Transpower has made a certification involving a matter of his or her opinion in accordance with this Part;

(b) his or her opinion has changed before the Commission’s decision in relation to the proposal or application in question; and

(c) the change is likely to be material to the Commission’s evaluation of the proposal or evaluation,

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

(2) Where-

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

(c) that fact is likely to be material to the Commission’s evaluation of the proposal or application,

that director or chief executive officer must notify the Commission as soon as reasonably practicable.
SCHEDULE A  BASE CAPEX PROPOSAL - EVALUATION CRITERIA

A1  General evaluation of base capex proposals

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

(a) whether the proposed base capex allowances have been prepared in accordance with Transpower’s policies and planning standards for the grid and for each base capex category;

(b) whether the policies and planning standards upon which the proposed base capex allowances rely are directed towards achieving cost-effective and efficient solutions;

(c) the reasonableness of the key assumptions relevant to base capex relied upon, including:
   (i) the method and information used to develop them;
   (ii) how they were applied; and
   (iii) their effect on the proposed base capex allowances;

(d) whether policies regarding the need for, and prioritisation of, projects and programmes demonstrate a risk-based approach consistent with good asset management practice;

(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 regulatory period in question;

(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;

Commented [TP73]: Should this also include the current regulatory period (i.e. the regulatory period during which the base capex proposal is submitted)? Contrast with sub clause (i).
(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 the identified programme’s 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 the identified programme’s forecast capital expenditure on other cost categories, including the relationship with operating expenditure;
(h) links with other projects or programmes, whether proposed or in progress;
(i) mechanisms for controlling actual capital expenditure with respect to the proposed base capex allowances and achieving ensuring performance of the proposed grid output targets; and
(j) the efficiency of the proposed approach to procurement of associated goods and services for the identified programme.

Commented [TP74]: This wording does not work. It needs to be either “will include…at least” (consistent with the other clauses) or just “may include:.”

Commented [TP75]: This criterion does not relate to a particular identified programme. It would be better in clause A1.
A3 Evaluation techniques

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

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

A4 Criteria for considering the low incentive rate base capex allowance

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

(a) whether there are viable alternatives that meet the same investment need; and
(b) the magnitude of cost uncertainty of the base capex project or base capex programme.
A5 Criteria for considering grid output measures

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

(a) the extent to which a **proposed grid output measure** is a recognised measure of either or both of the following things:

(i) risk in the supply of electricity transmission services; and

(ii) performance of the supply of electricity transmission services.

(b) the relationship between a **proposed grid output measure** and base capex, major capex and operating expenditure including the extent to which the relationship can be quantified;

(c) whether the proposed grid output 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 proposed grid output measure aligns with the business processes used by Transpower in its supply of electricity transmission services.

A6 Criteria for considering revenue-linked grid output measures

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

(a) the extent to which a **proposed revenue-linked grid output measure** is a recognised measure of grid outputs that are valued by consumers; and

(b) the strength of the relationship between a measure and base capex; and

(c) whether the proposed revenue-linked grid output measure is quantifiable, controllable by Transpower, auditable and replicable over time.

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

The Commission will take into account at least the following criteria in considering the caps, collars, 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 the **relevant 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

Commented [TP77]: This requirement is duplicated in clauses A6(b) and A7(b) although with different wording. We suggest the latter clauses can be deleted.
(ii) over the longer term;

(c)(b) the extent of the likely effect of factors unrelated to grid investment that may affect the relevant grid output, such as-

(i) natural degradation in asset condition;

(ii) impact of changes in loading of the grid; and

(iii) extreme weather events;

(d)(c) the plausible range of the relevant grid outputs likely to be delivered taking into account factors described in paragraphs A1(1)(a) and (b)(c);

(e)(d) the relationship between the range described in paragraph (c)(d) and the proposed caps and collars; and

(f)(e) the impact on return on capital implied by both the range described in paragraph (c)(d) and the application of the proposed caps, collars and grid output incentive rate.

Criteria for considering base capex allowance adjustment mechanism

Where the Commission considers specifying a base capex allowance adjustment mechanism it will take into account at least one of the following criteria:

(a) the cost brand timing uncertainties of any individual E & D base capex projects or E & D base capex programmes, and

(b) the extent to which the any cost or timing uncertainties of an E & D base capex project or E & D base capex programme are linked to-

(i) a certain level of demand or connection of connecting new generation; and/or

(ii) any other relevant drivers of E & D base capex that may influence project or programme need or uncertainty.
**SCHEDULE B  REVENUE ADJUSTMENTS**

**DIVISION 1  BASE CAPEX AND GRID OUTPUT ADJUSTMENTS**

**B1 Calculation of base capex expenditure adjustment**

1. The base capex expenditure adjustment is the sum of the standard incentive rate base capex expenditure adjustment and the low incentive rate base capex expenditure adjustment.

2. Subject to subclause (4), the quantum of the standard incentive rate base capex expenditure adjustment for a disclosure year is calculated in accordance with the following formula: \( a(b-c-g) \)

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>base capex standard incentive rate</td>
<td>33%</td>
</tr>
<tr>
<td>(b)</td>
<td>adjusted standard incentive rate base capex allowance for the disclosure year</td>
<td>(d + d' + e + f + h)</td>
</tr>
<tr>
<td>(c)</td>
<td>amount of aggregate capital expenditure that is base capex subject to the base capex standard incentive rate in the disclosure year less exempt base capex</td>
<td>base capex annual information required by an ID determination or a s 53ZD notice</td>
</tr>
<tr>
<td>(d)</td>
<td>standard incentive rate base capex allowance for the disclosure year less exempt base capex</td>
<td>in accordance with clause 2.2.2(1)(a) and the base capex adjustment mechanism</td>
</tr>
<tr>
<td>(d')</td>
<td>monetary amount of approved base capex in respect of listed projects subject to the base capex standard incentive rate for the disclosure year less exempt base capex to be used when calculating maximum allowable revenue or forecast maximum allowable revenue in applying an IPP determination</td>
<td>in accordance with clause 3.2.3(5)(d)</td>
</tr>
<tr>
<td>(e)</td>
<td>adjustment correcting for disparity between forecast CPI that applied when the standard incentive rate base capex allowance was determined and actual CPI in respect of (d) and (d')</td>
<td>base capex annual information required by an ID determination or a s 53ZD notice</td>
</tr>
</tbody>
</table>
Subject to subclause (4), the quantum of the low incentive rate base capex expenditure adjustment for a disclosure year is calculated in accordance with the following formula:

\[ a \times (b \times -c \times -g) \]

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>( a^* )</td>
<td>base capex low incentive rate</td>
<td>15%</td>
</tr>
<tr>
<td>( b^* )</td>
<td>adjusted low incentive rate base capex allowance for the disclosure year</td>
<td>( d^* + d'^* + e^* + f^* )</td>
</tr>
<tr>
<td>( c^* )</td>
<td>amount of aggregate capital expenditure that is base capex subject to the base capex low incentive rate in the disclosure year less exempt base capex</td>
<td>base capex information required by an ID determination or a s 53ZD notice</td>
</tr>
</tbody>
</table>

**Commented [TP85]:** The second part of \( g \) did not work formulaically because it needs to be deducted from both the allowance and the expenditure (most likely in different amounts) whereas the previous formulation had it deducted from the allowance only. The second part of \( g \) is now captured in the definition of exempt base capex. Exempt base capex is deducted in variables \( c \), \( d \) and \( d' \) in the same way as exempt major capex is deducted from the equivalent variables in clause B3.
$d^*$ low incentive rate base capex allowance for the disclosure year less exempt base capex

$\bar{d}^*$ monetary amount of approved base capex in respect of listed projects subject to the base capex low incentive rate for the disclosure year less exempt base capex to be used when calculating maximum allowable revenue or forecast maximum allowable revenue in applying an IPP determination

$e^*$ adjustment correcting for disparity between forecast CPI that applied when the low incentive rate base capex allowance was determined and actual CPI in respect of $d^*$ and $\bar{d}^*$

$f^*$ adjustment correcting for disparity between forecast FX rates that applied when the low incentive rate base capex allowance was determined and actual FX rates for each relevant currency in respect of $d^*$ and $\bar{d}^*$

$g^*$ aggregate amount of the adjusted low incentive rate base capex allowance $\bar{d}^*$ to which the base capex low incentive rate $a^*$ does not apply in circumstances where the expenditure was included in the low incentive rate base capex allowance $d^*$ or approved base capex in respect of listed projects. $d^*$ in respect of base capex which has expanded in scope and has become major capex or in respect of base capex included in $d^*$ and $\bar{d}^*$
(4) For the purposes of subclauses (2) and (3), in calculating the amounts or values for one or more of $c$, $e$, $f$, $g$, $c^*$, $e^*$, $f^*$ and $g^*$ the Commission need not use the amounts or values in the base capex annual information provided by Transpower and may instead, having regard to the views of interested persons, use the amounts or values that it considers are correct in the circumstances.

B2 Calculation of annual grid output adjustment

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>$i$</td>
<td>grid output adjustment and output adjustment in respect of the revenue-linked grid output measure in question for the disclosure year</td>
<td>$\sum \max(l</td>
</tr>
<tr>
<td>$j$</td>
<td>collar in respect of the revenue-linked grid output measure in question for the disclosure year</td>
<td>in accordance with clause PART 2 SUBPART 2(1)(c)</td>
</tr>
<tr>
<td>$k$</td>
<td>cap in respect of the revenue-linked grid output measure in question for the disclosure year</td>
<td>in accordance with clause PART 2 SUBPART 2(1)(c)</td>
</tr>
<tr>
<td>$l$</td>
<td>grid output incentive rate in respect of the revenue-linked grid output measure in question for the disclosure year</td>
<td>in accordance with clause PART 2 SUBPART 2(1)(c)</td>
</tr>
<tr>
<td>$m$</td>
<td>output achieved during the disclosure year in respect of the revenue-linked grid output measure in question</td>
<td>base capex information required by an ID determination or a ss 53ZD notice</td>
</tr>
<tr>
<td>$n$</td>
<td>grid output target in respect of the revenue-linked grid output measure in question for the disclosure year</td>
<td>in accordance with clause PART 2 SUBPART 2(1)(c)</td>
</tr>
</tbody>
</table>

(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.

Commented [TP86]: A measure may have different collars, caps and targets for different disclosure years in a regulatory period.

Commented [TP87]: These cross-references need to be corrected.
DIVISION 2  MAJOR CAPEX ADJUSTMENTS

83 Calculation of major capex expenditure and output adjustment

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

\[ a(b - t - c) \]

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>major capex incentive rate for the approved major capex project</td>
<td>in accordance with clause 3.3.3(5)</td>
</tr>
<tr>
<td>b</td>
<td>adjusted major capex allowance for the approved major capex project</td>
<td>[ d + e + f ]</td>
</tr>
<tr>
<td>c</td>
<td>amount of aggregate capital expenditure for the approved major capex projects less expenditure in respect of exempt major capex</td>
<td>major capex information required by an ID determination or a s 53ZD notice</td>
</tr>
<tr>
<td>d</td>
<td>major capex allowance for the approved major capex project less exempt major capex</td>
<td>in accordance with clause 3.3.3(5)</td>
</tr>
<tr>
<td>e</td>
<td>adjustment correcting for disparity between forecast CPI that applied when the approved major capex allowance for the approved major capex project was determined and actual CPI in respect of d</td>
<td>major capex information required by an ID determination or a s 53ZD notice</td>
</tr>
<tr>
<td>f</td>
<td>adjustment correcting for disparity between forecast FX rates that applied when the approved major capex allowance for the</td>
<td>major capex information required by an ID determination or a s 53ZD notice</td>
</tr>
</tbody>
</table>

Commented [TP88]: Redundant given proposed change to definition of exempt major capex.

Commented [TP89]: "Approved major capex allowance" is not a defined term.
For the purposes of subclause (1), in calculating the amounts or values for one or more of \( c, e, f, t \), the Commission need not use the amounts or values in the major capex annual information provided by Transpower in the major capex annual information required by an ID determination or a s 53ZD notice and may instead, having regard to the views of interested persons, use the amounts or values that it considers are correct in the circumstances.

**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 approved major capex project in question which, having regard to the factors listed in clause 6.1.1(6), the Commission considers should reasonably be recovered by Transpower under one or more IPP determinations.
SCHEDULE C  MAJOR CAPEX PROPOSAL - EVALUATION CRITERIA

C1  Proposed investment – investment test and components

(1) When deciding whether to approve a major capex project the Commission must evaluate whether the proposed investment satisfies the investment test.

(2) For the purposes of deciding whether a major capex project that relates to a stage of a major capex project (staged) satisfies the investment test, the Commission will:

(a) where the proposed investment relates to the first stage of the major capex project (staged), evaluate whether the investment test is satisfied for all proposed stages of the entire major capex project (staged); and

(b) where the proposed investment relates to subsequent stage(s) of the major capex project (staged), evaluate whether the investment test is satisfied for all proposed remaining stages of the entire remainder of the major capex project (staged).

(3) The Commission will also evaluate to the extent applicable to the transmission investment or non-transmission solution in question, the following components of the major capex project or staging project(s) for which Transpower seeks approval in its major capex proposal:

(a) major capex allowance;
(b) maximum recoverable costs;
(c) recovery scheme;
(d) major capex project outputs;
(e) approval expiry date;
(f) major capex incentive rate;
(g) commissioning date assumption; and
(h) completion date assumption.

(4) The Commission may approve a major capex project and/or one or more staging projects after carrying out the evaluations under subclauses (1) to (3), if it is satisfied—

(a) that the proposed investment meets the investment test is met; and

(b) with the components set out in subclause (3) taking account of its ability to specify a different major capex allowance and major capex incentive rate to those proposed by Transpower.
In carrying out the evaluations under subclauses (1) to (3), the Commission will apply the evaluation criteria in clauses 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(9) 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) the capital costing methodology and formulation, including unit rate sources, the method used to test the efficiency of unit rates and the level of contingencies included.
(c) the impact of forecast costs on other costs of Transpower, including the relationship with operating expenditure;

(d) mechanisms for controlling actual capital expenditure with respect to the major capex allowance or maximum recoverable costs; and

(e) the efficiency of the proposed approach to procurement of goods and services.

C4 Evaluation of approval expiry date

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

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

(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 of major capex incentive rate

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

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

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

C7 Evaluation techniques

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

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

(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**;

(e) unit rate benchmarking; and

(f) any other technique or approach that the **Commission** considers appropriate in the circumstances.
SCHEDULE D    MAJOR CAPEX - INVESTMENT TEST

DIVISION 1    INVESTMENT TEST

D1  Major capex - investment test

(1)  The investment test is satisfied in respect of a proposed investment if the proposed investment is an investment option that:

(a)  is sufficiently robust under sensitivity analysis;

(b)  has a positive expected net electricity market benefit unless it is designed to meet an investment need the satisfaction of which is necessary to meet the deterministic limb of the grid reliability standards; and

(c)  has-

(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 D6(4) is likely to be disproportionately large relative to the quantum; or

(ii)  its expected value cannot be calculated in accordance with clause D6(4) with an appropriate level of certainty due to the extent of uncertainties in underlying assumptions or calculation approaches.

(3)  For the purpose of subclause (2)(a), the Commission may, at its discretion, adopt an alternative percentage to 10% as proposed by Transpower.
DIVISION 2  MEANING OF TERMS USED IN INVESTMENT TEST

D2  Expected net electricity market benefit

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

(2)  Net electricity market benefit means, in respect of an investment option applied to a relevant demand and generation scenario, its aggregated quantum of each electricity market benefit or cost element less its aggregated quantum of each project cost.

D3  Demand and generation scenario, demand and generation scenario variation, and relevant demand and generation scenario

(1) Demand and generation scenario means a description of a hypothetical future situation relating to forecast electricity demand and generation published by the Ministry of Business, Innovation and Employment (or other agency which subsequently assumes the responsibility) for the purpose of the preparation or evaluation of major capex proposals.

(2) Demand and generation scenario variation means a reasonable variation on a demand and generation scenario description referred to in subclause (1)(a) that reasonably has regard to the views of interested persons.

(3) For the purpose of subclause (2)(1)(b) a variation must:

(a) 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.

Commented [TP93]: This limb of the definition of demand and generation scenario needs to be separated from the first limb and made a defined term for sub clause (4) to work logically.
(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.

(5)(4) Relevant demand and generation scenarios means-
(a) all current demand and generation scenarios that have not been varied under subclause (2) where there are no demand and generation scenario variations; and-
(b) where there are demand and generation scenario variations, all demand and generation scenario variations plus all current demand and generation scenarios that have not be varied under subclause (2) without demand and generation scenario variations.

D4 Costs or benefits
(1) Electricity market benefit or cost element means, subject to subclause (3), any of the following things received or incurred by consumers during the calculation period under the relevant demand and generation scenario in question that will affect net electricity market benefits:
(a) fuel costs incurred by generators in relation to existing assets, committed projects and modelled projects;
(b) the cost of involuntary demand curtailment borne by end users of electricity;
(c) the costs of demand-side management;
(d) capital costs of modelled projects;
(e) costs resulting from operations and maintenance expenditure on committed projects, existing assets and modelled projects;
(f) the cost of ancillary services including system operator costs;
(g) the cost of losses, including local losses;
(h) any real option value;
(i) subject to subclause (5), the value of any benefit associated with any financial contribution that a third party has committed to make towards the costs of the project;
(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 date implied by the commissioning date assumption for assets associated with the investment option;

(b) amounts payable to a third party in relation to its testing of assets associated with the investment option;

(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)(l), the value of any such benefit may not exceed the amount of the contribution committed by the third party.
(6) The land referred to in subclause (2)(a) is land that, at the time of the major capex proposal, is commissioned but which is not used by Transpower to provide electricity transmission services.

D5 Competition effects

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

D6 Quantification of costs and benefits

(1) The quantum of a project cost incurred prior to the calculation period must be calculated using compounding of the project cost over the period from the date it was incurred to the start of the calculation period using the discount rate.

(2) The quantum of an electricity market benefit or cost element received or incurred during the calculation period must be calculated using discounting of the electricity market benefit or cost element over the calculation period using the discount rate.

(3) Discount rate means-
   (a) a standard rate of 7%; or
   (b) a non-standard rate other than 7% which is appropriate in the circumstances and subject to consultation under clause I3.

(4) The quantum of an electricity market benefit or cost element or project cost must be calculated using its expected value, which is the probability-weighted average of the possible values of the cost or benefit where the probability weightings reflect the uncertainties in underlying assumptions or calculation approaches.

(5) The cost of involuntary demand curtailment borne by end users of electricity is the expected quantity of curtailed demand multiplied by the value of expected unserved energy.

(6) The quantum of a project cost must be calculated using good electricity industry practice.
(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), sensitivity analysis must be undertaken in respect of the following discount rates:

(a) 4%;

(b) the standard rate of 7%;

(c) 10%; and

(d) any non-standard rate other than 7% which has been adopted by Transpower.
D8 Assets and projects

(1) **Committed projects** has the same meaning as defined in Part 1 of the code, 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.

Commented [TP94]: The deleted definition matches the code definition.
(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 **relevant demand and generation scenario**; and
      (ii) during the **calculation period** for any **investment option** based on that scenario; and
   (b) for which the likelihood, nature and timing of their existence are affected by an **investment option** proceeding.
SCHEDULE E  INTEGRATED TRANSMISSION PLAN

E1  Information to be included in integrated transmission plan

(1) The information that must be included is:
(a) an ITP narrative; and
(b) ITP supporting documents.

(2) The information listed in this schedule in relation to the ITP narrative is, unless otherwise stated, required in respect of a period of at least ten disclosure years commencing on the first day of the next regulatory period.

(3) The robustness of information provided must be commensurate with the degree of certainty Transpower may be reasonably expected to have in respect of it.

E2  Information to be included in the ITP narrative

(1) With reference, where relevant, to the information contained in the ITP supporting documents, a high level-
(a) overview of the expenditure and outputs which are proposed for the first regulatory period to which the ITP narrative relates coinciding with the disclosure year and forecast expenditure needs and outputs over the next regulatory period;
(b) overview of the key assumptions and scenarios used to determine forecast expenditure and grid outputs;
(c) assessment of the key uncertainties in the key assumptions, and forecast expenditure and grid outputs;
(d) assessment of the key risks affecting forecast expenditure;
(e) assessment of how the key uncertainties and key risks will affect Transpower’s ability to deliver the forecast grid outputs;
(f) description of the proposed measures to manage and mitigate the key uncertainties and key risks; 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

F1 Qualitative information required in a base capex proposal

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

F2 List of identified programmes, listed projects, low incentive rate base capex projects and E & D base capex projects

(1) Identify all proposed base capex projects and base capex programmes forecast to be undertaken during the next regulatory period that are identified programmes and explain how they were selected with reference to the categories or criteria set under clause 2.2.1;

(2) Identify all proposed listed projects and explain why they meet the criteria for listed projects set out in clause 2.2.2(7);

(3) Identify all proposed low incentive rate base capex projects and explain why:
   (a) Why each is expected to require capital expenditure exceeding $20 million; and
   (b) the extent to which there are viable alternatives to meet the same investment need; and
   (c) the magnitude of the cost uncertainty.

(4) Identify all E & D base capex projects or E & D base capex programmes that Transpower considers should be subject to the base capex allowance adjustment mechanism and explain the extent to which:
   (a) the cost and timings of the project(s) or programme(s) are uncertain; and
   (b) the extent to which the any cost or timing uncertainties of a project or programme are linked to:
      (i) a certain level of demand or connection of new generation; and/or
      (ii) any other drivers of E & D base capex that may influence project or programme need or uncertainty.

Commented [TP95]: This matches the wording in clause E1(2).

Commented [TP96]: Makes the following list flow as intended.
Overview

(1) An overview narrative on how the proposed base capex projects and base capex programmes relating to base capex are consistent with the-
   (a) most recent integrated transmission plan, and an explanation for any material divergence; 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 base capex projects and base capex programmes relating to base capex; and
(5) identification and explanation of the factors likely to affect the deliverability of the proposed base capex projects and base capex programmes relating to base capex, by base capex category.

Governance and consultant reports

(1) schedule listing Transpower’s governance arrangements (including policies, processes, strategies and risk assessments) applicable to base capex concerning-
   (a) base capex projects costing over $20 million;
   (b) base capex programmes;
   (c) asset management;
   (d) business planning; and
   (e) capital works;
(2) description of all material changes to policies and processes that have had a material impact on expenditure levels; and
(3) schedule listing all consultant reports commissioned for the purpose of preparing the base capex proposal.

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-whole-of-life 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 identified 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 identified programme, including its aims and objectives;
   (b) economic analyses that support it;
   (c) explanation as to its deliverability, with reference to factors likely to specifically affect the identified programme;
   (d) description of the methodology used to generate the forecast of its base capex, including, but not limited to-
      (i) the relevant key assumptions and how they were applied;
      (ii) any relevant cost benchmarking undertaken by or for Transpower;
      (iii) internal historical cost trends for specific cost components relied upon e.g. unit costs; and
      (iv) any models used, accompanied by explanations of the models and how they were relied upon;
   (e) any material change from historical costs in any cost component included in the identified programme and its effect on the forecast base capex;
   (f) list of all relevant documents taken into account in forecasting the identified programme’s base capex, including documents relating to the identified programme’s deliverability, relevant policies and consultant reports;
(g) explanation of the extent to which the identified programme’s forecast base capex implements the key assumptions, any consultant reports, and policies relating to the planning of the grid and the forecasting of capital expenditure and operating expenditure for that purpose, including in relation to-
(i) long term grid development;
(ii) grid maintenance; and
(iii) grid operation;
(h) explanation of all material departures from any-
(i) relevant policies;
(ii) planning standards; or
(iii) conclusions and recommendations contained in the consultant reports identified pursuant to paragraph (f);
(i) overview of any significant tradeoffs between operating expenditure, base capex and quality that Transpower considered in the identified programme’s development;
(j) assessment of its impact upon either or both of the-
(i) quality performance; and
(ii) serviceability,
of the assets to which the identified programme relates;
(k) description of relevant legally enforceable duties owed by Transpower, whether arising under legislation, at common law or in contract, that have a material impact on the identified programme;
(l) description of any material step change compared to historic costs for the same or a similar type of project or programme;
(m) explanation of the effect of a step change identified pursuant to paragraph (l) on the identified programme’s forecast base capex.

(3) in respect of each identified programme with a forecast commissioning date to be first commissioned during in the next regulatory period-
(a) description of the reasons for the identified programme or project and the key assumptions underlying the investment need;
(b) where options have been considered, provide a summary of the options considered, the analyses undertaken and the reasons for selecting the preferred option;
(c) summary of expected costs and a description of benefits and outputs; and
(d) identify, quantify and justify all contingency sums included in the forecast cost of the identified programme.

(4) in respect of each identified programme with a forecast commissioning date to be first commissioned in the regulatory period after the next regulatory period-

(a) describe the milestones that are planned to be completed in the next regulatory period; and

(b) provide the forecast commissioning date of the identified programme.

(5) in relation to each identified programme that may use outsourced services which may have a material effect on the desired outcome of the identified programme to the extent known -

(a) identify the outsourced services;

(b) explain whether those outsourced services are to be provided-

(i) under a discrete contract; or

(ii) as part of a broader operational arrangement or contract or similar;

(c) provide an overview of the procurement process, including an explanation of the extent to which the process will involve competitive bidding, and if not, why not;

(d) identify any significant components of any outsourced services that have been, or will be sub-contracted to another supplier; and

(e) identify relevant procurement documents in a schedule, including but not limited to requests for tender and submissions in response.

F7 Procurement

(1) Provide a description of the procurement process used to deliver the proposed base capex projects and base capex programmes; and

(2) Identify and explain any key risks associated with procurement that have the potential to affect the delivery of the proposed base capex projects and base capex programmes.

F8 Resourcing and delivery

(1) description of plans for resourcing and delivering the proposed base capex projects and base capex programmes;

(2) identification of the key risks associated with resourcing and delivering the proposed base capex projects and base capex programmes including explanation of each risk’s potential to affect-

(a) the forecast base capex; and
(b) forecast grid output measures; and

(3) description of the processes that will be implemented to manage or mitigate the risks to which subclause (2) relates.

F9 Other capex

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

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;
   (e) an explanation of whether, in applying escalation factors that relate to labour or material inputs, additional contingency factors were applied and, if so, description of the uncertainties they account for and how they were calculated;

(2) a list of the foreign exchange rates used to prepare the proposed base capex allowances;

(3) an estimate of the exposure to foreign currency for each foreign currency for each year of the next regulatory period and description of how these estimates were produced.

F11 Information on proposed grid output measures

(1) lists of all proposed grid output measures which -
   (a) that must include the following -
      (i) one or more asset performance measures;
(ii) **one or more measures of grid performance** and
(iii) **one or more asset health grid output measures**

(b) **lists of grid output measures** that may include the following:
   (i) **one or more asset capability grid output measures**; and
   (ii) **any other grid output measures**;

(2) **description of each grid output measure** listed under subclauses (1) and (2) including:
   (a) detailed definitions;
   (b) details as to what the grid output measure includes and excludes;
   (c) the reasons for selecting each grid output measure, including the relationship with the:
      (i) risks associated with the grid;
      (ii) forecast performance of the grid; and
      (iii) key purposes of the investment;

(3) in respect of each grid output measure listed under subclauses (1) and (2):
   (a) identify whether it is proposed as a **revenue-linked grid output measure**, or not linked to revenue;
   (b) the effect that the proposed base capex allowances would have on the measure during the next **regulatory period** and beyond it; and
   (c) the alignment with the underlying business processes used to plan and operate the grid; and
   (d) all relevant calculations, models and supporting data;

(4) in respect of each grid output measure listed under subclause (1) not linked to revenue:
   (a) the forecast value of the grid output measure at the start and by the end of the next **regulatory period**; and
   (b) an explanation of how the forecast value was determined.

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 next regulatory period, a proposed-
(i) grid output target;
(ii) grid output incentive rate;
(iii) cap; and
(iv) collar;

(c) description of and justification for the proposed grid output targets, caps, collars, and grid output incentive rates including-
   (i) how each was determined by reference to the relevant definitions;
   (ii) whether, and if so, for each grid output target, Transpower has had regard to any consultation responses and relates to relevant policies and key assumptions;

(d) to the extent possible, historical performance data for the seven most recently completed disclosure years;

(2) commentary comparing and evaluating the performance of each proposed revenue-linked grid output measure with respect to actual capital expenditure and operating expenditure over the 7 most recently completed disclosure years;

(3) commentary as to how the proposed grid output targets relate to the proposed base capex allowances and proposed operating expenditure allowance as contained in the opex proposal;

(4) identification of any key assumptions relied upon and modifications or changes made to historical performance data for the purpose of determining the proposed grid output targets; and

(5) description of models and all data used to determine the proposed grid output targets, caps and collars.
SCHEDULE G  MAJOR CAPEX PROPOSALS

G1  Information required in a major capex proposal

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

(a)  a major capex proposal must include the information listed or described in this schedule; and

(b)  where the major capex proposal relates to a subsequent stages of a previously approved major capex project (staged) the information may be provided as updates to the information previously supplied for previously approved stages of the major capex project (staged).

G2  Information on the investment need

explanation of the need for investment, including-

(a)  information on its nature, extent, location and timing;

(b)  commentary as to how the investment need is consistent with the most recent integrated transmission plan; and

(c)  a summary of consultation participants’ views on the investment need and how Transpower had regard to those views and if not, why not.

G3  Information on relevant demand and generation scenarios

(1)  detailed description of each relevant demand and generation scenario variation, including-

(a)  explanation of the major variations between the demand and generation scenario variation and the relevant demand and generation scenarios;

(b)  the rationale for the variations; and

(c)  a summary of consultation participants’ views on them;

(2)  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
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 relevant demand and generation scenario;

(3) in respect of each investment option, quantum of-
   (a) each electricity market benefit or cost element;
   (b) each project cost;
   (c) aggregate electricity market benefit or cost element; and
   (d) the 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; and
   (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 proposed investment and, where the major capex project relates to a stage of a major capex project (staged), provide-
   (a) a description of all the proposed staging projects of the major capex project (staged);
   (b) full details of each staging project(s) for which approval is being sought;
(c) reasons for the proposed staging, including the extent to which splitting the major capex project (staged) into stages has the potential to reduce the timing, scope or cost uncertainties of the major capex project (staged); and

(d) the estimated project costs, planned major capex project outputs and planned timing of each staging project stage for which approval is being sought.

(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, which must be the P50 of capital expenditure for the proposed investment estimate of project costs, and the estimated probability distribution of the P50 estimate;

(d) where a major capex allowance is applicable, the commissioning date assumption and rationale for it;

(e) any proposed maximum recoverable costs;

(f) where maximum recoverable costs are applicable, the completion date assumption and rationale for it;

(g) the major capex incentive rate where a different rate to the default rate of 15% is proposed and the rationale for it;

(h) all relevant supporting technical information and costing information;

(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;

Commented [TP100]: Does this information need to be provided for all stages or just the stages for which approval is sought? Does this requirement duplicate requirements in clause G4?

Commented [TP101]: If the proposed investment is a hybrid transmission/non-transmission project then the non-transmission costs will be captured as maximum recoverable costs.
(5) commentary as to how consistent the proposed investment is with the most recent integrated transmission plan, and if not, why not;

(6) identification of anything associated with the proposed investment falling under any of clauses D4(1)(a) to D4(1)(g) that did not meet the definition of electricity market benefit or cost element 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 D4(1)(a) to D4(1)(g) did not meet the definition of electricity market benefit and cost element 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 to sensitivity analysis the proposed investment is;

(11) reasons for any selection of a-
(a) discount rate other than 7%; and
(b) calculation period other than 20 years;
(c) cost per megawatt hour determined using paragraph (b) of the definition of value of expected unserved energy;

(12) a description as to how consistent with good electricity industry practice the proposed investment is;

(13) rationale for determining that the proposed investment may satisfy the investment test by reference to each subclause and paragraph of that test; and

(14) a plan for monitoring costs, project milestones and deliverables that reflects the best information available to Transpower.

G6 Grid outputs

In relation to the major capex project and each staging project(s) for which Transpower seeks approval in its major capex proposal, as applicable-

(1) the major capex project outputs that are proposed;

(2) the quantum of each proposed major capex project output;

(3) the rationale for the proposed major capex project outputs, including-
(a) description of key factors and key assumptions relevant to their determination including the uncertainty associated with each such factor or assumption; and

Commented [TP102]: Clause D4 relates to the definition of “electricity market benefit or cost element”. 
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 major capex allowance and the quantum of each approved major capex project output that is proposed including the sensitivity of the quantum of each proposed major capex project output that is proposed to changes in the proposed major capex allowance, 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(9) was followed, including:

(a) a list of the relevant consultation steps and confirmation by Transpower that each occurred;
(b) a list of respondents to the consultation;
(c) a description of all issues raised by interested persons in response to Transpower’s intended major capex proposal;
(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 consultation participants;

(c) explanation as to how the non-transmission solutions to which paragraph (b) applies were taken into account when determining the investment options and applying the investment test; and

(d) description and justification of how any assets that would be commissioned by Transpower form part of the non-transmission solution.

G9 Additional information

Any additional supporting material Transpower reasonably considers is relevant to the decision of the Commission under clause 3.3.5.
SCHEDULE H  INFORMATION REQUIREMENTS FOR AMENDMENT AND SUNK COSTS APPLICATIONS FOR MAJOR CAPEX PROJECTS

DIVISION 1  AMENDMENTS TO MAXIMUM RECOVERABLE COSTS OR RECOVERY SCHEME

H1 Information to be provided

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

H2 Project identification and specifications

Identification of-

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

H3 Amendments sought

(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; and
(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.

H4 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.

H5 Current and forecast expenditure

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

H6 Reasons for making the application

(1) reason for applying, including-
   (a) description of key factors leading to the application;
   (b) explanation as to the extent to which each key factor is within Transpower’s control; and
   (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 subclause (2) applies;

(4) where no application for amendment to the approved major capex project outputs is being made concurrently, explanation as to why those approved major capex project outputs will remain appropriate were the proposed adjustment made in light of the information to which subclause (2) applies;

(5) statement as to whether the expected net electricity market benefit of the non-transmission solution is materially lower at the time of the application than when the relevant major capex proposal was approved and if so, current quantum of its expected net electricity market benefit; and

(6) explanation as to why making the proposed amendment would promote the long-term benefit of consumers, taking into account-

(a) any costs that are sunk;
(b) the context in which the major capex proposal was made; and
(c) the context in which any subsequent amendments to the approval were made by the Commission.

DIVISION 2 AMENDMENT TO APPROVED MAJOR CAPEX PROJECT OUTPUTS

H7 Information to be provided

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

H8 Project identification and specifications

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

H9 Amendment sought

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

(a) assets to be commissioned;

Commented [TP104]: This should refer to the net market benefit across all relevant demand and generation scenarios.
(b) functional capability of the grid;
(c) quantum of electricity market benefit or cost elements directly related to the supply of electricity transmission services that are likely to be achieved as a result of undertaking the project; and
(d) in the case of a non-transmission solution, description of the extent to which each proposed amendment reflects a change to any relevant service provided by a third party;

H10 Progress of project

description of progress made on the approved major capex project, including as applicable details of-
(a) planning processes undertaken;
(b) resource management consents, other regulatory consents, and property rights and access rights obtained;
(c) construction and labour contracts and arrangements made;
(d) construction completed; and
(e) testing undertaken;

H11 Current and forecast expenditure

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

H12 Reasons for making the application

(1) reason for applying, including-
(a) description of key factors leading to the application;
(b) commentary on the extent to which each key factor is within Transpower’s control and actions taken to mitigate it; and
(c) commentary on the extent to which each key factor was reasonably foreseeable by Transpower before approval of the relevant major capex project and/or staging projects(s);

(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;

(5) where no application for amendment to the maximum recoverable costs, is being made concurrently, an explanation as to why those costs will remain appropriate were the proposed amendment to approved major capex project outputs made; and

(6) an explanation as to the appropriate major capex allowance if the proposed amendment to the approved major capex project outputs were made.

DIVISION 3 AMENDMENT TO APPROVAL EXPIRY DATE

H13 Information to be provided

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

H14 Project identification and specifications

identification of relevant approved major capex project and-
   (a) its approval expiry date; and
   (b) its major capex allowance or maximum recoverable costs;
H15  Amendment sought
proposed new approval expiry date;

H16  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 approved major capex project, including details of-
    (a)  planning processes undertaken;
    (b)  details of resource management consents, other regulatory consents, and property rights and access rights obtained;
    (c)  details of resource management consents, other regulatory consents, and property rights and access rights still in progress;
    (d)  details of other consent, property or access negotiations in progress;
    (e)  any request for information or request for services issued to third parties;
    (f)  construction and labour contracts and arrangements made;
    (g)  construction completed; and
    (h)  testing undertaken;

H17  Current and forecast expenditure
(1)  major capex incurred;
(2)  forecast remaining major capex; and
(3)  amount of any major capex in the forecast remaining major capex in excess of the major capex allowance or maximum recoverable costs, as the case may be.

H18  Reasons for making the application
(1)  reason for making the application, including-
    (a)  a description of the key factors leading to the application;
    (b)  commentary on the extent to which each key factor is within Transpower’s control; and
(c) commentary on the extent to which each key factor was reasonably foreseeable by Transpower before the approval of the relevant major capex project and/or staging project(s);

(2) description of the likely implications of the amendment, including the effect over the calculation period on other approved major capex projects where, in the case of an approved major capex project that is a-

(a) transmission investment, the last asset to be delivered by the project has not yet been commissioned; or

(b) non-transmission solution, has not yet achieved completion.

(3) statement as to whether the expected net electricity market benefit of the approved major capex project is materially lower at the time of the amendment application than when the relevant major capex project was approved and if so, current quantum of its expected net electricity market benefit; and

(4) explanation as to why making the proposed amendment would promote the long-term benefit of consumers, taking into account:

(a) any costs that are sunk;

(b) the context in which the major capex proposal was made; and

(c) the context in which any subsequent amendments to the approval were made by the Commission.

DIVISION 4  SUNK COSTS APPLICATIONS

H19 Information to be provided

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

H20 Project identification and specifications

identification of relevant approved major capex project;

H21 Sunk costs approvals sought

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

H22 Current and forecast expenditure

information on current and forecast expenditure, including-

(a) major capex incurred;

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

H23 Progress of project

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

H24 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 relevant major capex
project and/or staging project(s); 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

DIVISION 1  CONSULTATION ON OPTIONS

I1  What Transpower must consult on

(1) Transpower must, except where the 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 demand and generation scenario variation;
   (c) key assumptions;
   (d) a long list of options to meet each investment need; and
   (e) a short list of investment options to meet each investment need.

(2) When consulting on the matters referred to in subclause (1)(e) that consultation must occur after any consultation on the matters referred to in the other paragraphs of that subclause has taken place.

(3) For the avoidance of doubt, the matters referred to in subclauses (1)(a) to (1)(d) may be consulted upon together or separately.

I2  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 relevant 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 non-standard discount rate 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, describe its type, where possible by reference to the things listed in the definition of non-transmission solution;

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

(iv) identify if the option may be staged and if so, describe its potential stages; and

(v) consult on the proposed staging of the options identified in (e)(iv).

13 Short list consultation requirements

(1) When consulting on a short list of investment options, in its consultation document, Transpower must, except where Commission is satisfied that the inclusion of any matter outlined below would be unreasonable in the circumstances as provided for by clause 8.1.3(2)(b)-

(a) describe the relevant demand and generation scenarios it intends using for the purpose of the investment test and the weightings of those scenarios; and

(b) provide information on the relevant key assumptions, including-

(i) value of expected unserved energy cost of expected unserved energy per megawatt hour; 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;
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 expected 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.

I4 Key assumptions

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

(a) nature of the qualitative assessment used to take into account the contribution of associated unquantified electricity market benefit or cost elements;

(b) value of expected unserved energy or 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 solutions may meet an investment need must take into account-
(a) the size and nature of the investment need; and
(b) the likelihood that one or more 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-
   (i) invite interested persons to provide views or information relevant to possible non-transmission solutions to meet that need; and
   (ii) provide sufficient information to enable interested persons, including potential proponents of non-transmission solutions to propose non-transmission solutions; and
(b) Transpower need not seek proposals for non-transmission solutions from interested persons prior to the initial consultations on its long list of investment options, but must take those views and information on or relevant to possible non-transmission solutions into account to the extent they have been provided prior to or during the period in which the long list is developed, including pro-actively engaging with the parties providing them, where appropriate; and
(c) when consulting on its long list of investment options, Transpower must -
   (i) include potential non-transmission solutions in its list of investment options; and
(ii) invite interested potential proponents of non-transmission solutions to provide information or proposals on non-transmission solutions; and

(d) when developing the short list of investment options that includes a non-transmission solution, Transpower must invite proponents of non-transmission solutions to provide comprehensive proposals in respect of their non-transmission solution(s).

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

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

DIVISION 3 MAJOR CAPEX PROJECTS (STAGED)

16 Approach to consulting on major capex project (staged)

(1) The consultation requirements for the commencement of a major capex project (staged) are as set out in subclauses 11 to 15.

(2) The consultation requirements for all subsequent unapproved staging projects of the major capex project (staged) are, in relation to all such staging projects:

(a) updates on the investment need;

(b) updated relevant demand and generation scenarios and updates on demand and generation scenarios variations;

(c) updates of key assumptions;

(d) update of options to meet each investment need;

(e) invitation for proposals on non-transmission solutions; and

(f) the investment test if there is material difference between the method or parameters of the investment test between previous stages and the subsequent stage of the major capex project (staged).

(3) The extent of consultation by Transpower for the purposes of 16(2) shall be commensurate with the materiality of changes identified in 16(2) but shall contain sufficient information to enable interested and affected parties to engage on all unapproved staging projects of the major capex project (staged).