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

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Date of decision xxxx

Commented [TP1]:
Our commentary:
- reflects policy views from our submission to the draft decisions. We have suggested drafting amendment in the comment boxes, rather than direct amendments, so as not to confuse our suggestions with the Commission’s amendments
- indicates where we consider drafting could be improved. We propose improvements to address consistency, and reduce repetition and redundancy.
[Drafting notes:

- This draft determination sets out the draft amendments to the Transpower Capital Expenditure Input Methodology Determination.

- The draft amendments to the Transpower Capital Expenditure Input Methodology which include deletions, substitutions and additions are tracked in this draft determination in blue.]
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TRANSPOWER CAPITAL EXPENDITURE INPUT METHODOLOGIES
AMENDMENTS DETERMINATION

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Pursuant to s 54S of the Commerce Act 1986 the Commerce Commission makes the following determination:
PART 1 GENERAL PROVISIONS

1.1.1 Title

This determination is the Transpower Capital Expenditure Input Methodology Determination.

1.1.2 Commencement and Application

(1) 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. This determination amends the principal determination.

(2) 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.

(3) Amendments in this determination apply from the day it comes into force except:

(a) subpart 2 of Part 3 of the principal determination will continue to apply in relation to RCP2;

(b) clause 3.3.4 of the principal determination will continue to apply in relation to all major capex projects approved before this determination came into force;

(c) clause 3.3.7 of the principal determination will continue to apply in relation to all major capex projects approved before this determination came into force;

(d) Clause 4.1.1 of the principal determination will continue to apply in relation to RCP2;

(e) clause 6.1.1(7) of the principal determination will continue to apply in relation to RCP2;

(f) clause 7.4.2 of the principal determination will continue to apply in relation to all major capex projects approved before this determination came into force;

(g) clause B1 of the principal determination will continue to apply in relation to RCP2;

(h) clause B2 of the principal determination will continue to apply in relation to RCP2;

(i) clause B4 of the principal determination will continue to apply in relation to all major capex projects approved before this determination came into force;

Commented [TP2]: This determination is drafted as a replacement of the current determination. The document is inconsistent as to whether this determination amends or replaces the current determination. This clause suggests a replacement whereas the title of the determination and clause 1.1.2(1) says it is an amendment.

Commented [TP3]: We suggest stating that clauses 4.1.1 and B5 of this determination (relating to the major capex expenditure adjustment) do not apply in relation to RCP2.
(j) clause B5 of the principal determination will continue to apply in relation to all major capex projects approved before this determination came into force;

(k) clause B7 of the principal determination will continue to apply in relation to RCP2;

(a) Schedules C, D, G and I will continue to apply in relation to all major capex projects submitted to the Commission for approval before this determination came into force;

(b) Schedule H of the principal determination will continue to apply in relation to all major capex projects approved before this determination came into force;

(c) 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.

(d) For the avoidance of doubt,

(e) any application by Transpower for approval or amendment to an approval of a major capex project received after this determination comes into force will be decided in accordance with the input methodology in this determination; and

(f) any application by Transpower for approval of a major capex project made to the Commission in accordance with s 54R(3)(b) of the Act prior to this determination coming into force; and

(g) in respect of which a decision as to its approval has not been made by the Commission at that time;

(i) will be decided in accordance with s 54R(3)(b) of the Act notwithstanding that this determination is in force.

1.1.3 Transitional provisions

(1) A major capex project approved by-

(a) the Electricity Commission under Part F of the Electricity Governance Rules 2003; or

(b) the Commission in accordance with s 54R(3)(b) of the Act,

will be treated for the purposes of this determination as a major capex project that has been approved by the Commission under clause 3.3.3.

Commented [TP4]: Should be “major capex proposals”.

Commented [TP5]: Should be clause 3.3.3 of the principal determination. However, we consider the whole of clause 1.1.3 is redundant because clause 1.1.3 of the principal determination has already transitioned the historic approvals.
Where subclause (1) applies, in treating the approval by the Electricity Commission or the Commission in question as an approval under clause 3.3.3-

(a) the quantum of approved major capex is-
   (i) the major capex allowance; or
   (ii) maximum recoverable costs;
   to the extent that the major capex relates to a transmission investment or non-transmission solution respectively;
(b) any date specified as part of the approval as that on which the approval expires is the approval expiry date;
(c) the quantum of any required outputs or deliverables are approved major capex project outputs;
(d) any 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.

A reference to-

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

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

Commented [TP6]: The way lists are done in the document is inconsistent. Sometimes “and” or “or” only appears after the second-to-last item (as here) and sometimes it appears after every item (e.g. clause 2.2.3(2)). Sometimes it appears semi-randomly (e.g. clauses 1.1.4(1) and 7.5.1(2)).
1.1.4 Interpretation

(1) In this determination-

(a) unless stated otherwise, references to Parts are to named and numbered parts of the determination;

(b) references to Subparts are to subparts within the same part in which the reference is made;

(c) unless the context otherwise requires, a word which denotes the singular also denotes the plural and vice versa; and

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

(e) any reference to a period of time is 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:

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 calculated as specified in clause B1(2), base capex allowance plus monetary amount of additional approved base capex in respect of listed projects to be used when calculating maximum allowable revenue or forecast maximum allowable revenue in applying an IPP determination, adjusted to take account of any disparity between-

(a) — forecast CPI that applied when the base capex allowance was determined and actual CPI; and

(b) — forecast FX rates that applied when the base capex allowance was determined and actual FX rates,

and its quantum is calculated in accordance with clause B1(1); adjusted low incentive rate base capex allowance means the value calculated as specified in clause B1(2);

adjusted major capex allowance means the value calculated as specified in clause B5(1), major capex allowance adjusted to take account of any disparity between-
forecast CPI and actual CPI; and
forecast FX rates and actual FX rates; and
other amounts which do not apply in respect of the calculation of the major capex overspend adjustment;
and its quantum is calculated in accordance with clause B4(4);
ancillary service has the same meaning as ‘ancillary service’ is defined in the code;
application submission date means the date by which Transpower will submit an application for a proposed investment to the Commission under clause 3.3.1;
approval expiry date means date on which the approval given by the Commission in respect of a major capex project under clause 3.3.3 expires;
approval timeframes means timeframes for the Commission to approve or amend an approval for a major capex project under clause 3.3.3;
approved major capex project outputs means the grid outputs applying in respect of a proposed investment approved by the Commission under clause 3.3.3;
asset capability grid output measure means measure that-
(a) quantifies the capability or utilisation of the grid, whether at the level of-
(i) individual assets;
(ii) an aggregation of assets, such as by substation; or
(iii) the grid; and
(b) reflects the output or benefit (where ‘benefit’ may include a reduction in risk) delivered by investment in additional capacity to supply electricity transmission services;
asset health grid output measure means measure that-
(a) quantifies the fitness for service of the grid, whether at the level of-
(i) individual assets;
(ii) an aggregation of assets, such as by substation; or
(iii) the grid; and
(b) reflects the output or benefit (where ‘benefit’ may include a reduction in risk) delivered by expenditure-
(i) on asset refurbishment;
(ii) on asset replacement; or

Commented [TP7]: This term has been changed to singular later (e.g. in Subpart 3 of Part 3).

Commented [TP8]: This is not a defined term, so should be unbolted. Another example of an undefined term in bold is “formula” in the definition of “grid output mechanism.”
(iii) which is operating expenditure;

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

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

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

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

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

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

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

B

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

(a) is incurred in relation to one or more of the following things:

(i) asset replacement;
(ii) asset refurbishment;
(iii) business support; and
(iv) information system and technology assets; or

(b) is not forecast to be included in a-

(i) project whose aggregate forecast capital expenditure exceeds the base capex project threshold; and
(ii) programme whose aggregate forecast capital expenditure exceeds the base capex programme threshold;
base capex allowance means the low incentive rate base capex allowance and standard incentive rate base capex allowance monetary amount of base capex to be used when calculating maximum allowable revenue or forecast maximum allowable revenue in applying an IPP determination;

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

base capex expenditure adjustment means the monetary amount calculated as specified in clause B1 of after-tax economic gain or loss to take account of deviation by Transpower in base capex for a disclosure year with respect to the adjusted base capex allowance for that disclosure year;

base capex incentive rate means the percentage that Transpower must bear
(a) of the difference between base capex for a disclosure year and the adjusted base capex allowance for that disclosure year as a result of the base capex expenditure adjustment; or
(b) of the base capex relating to non-compliant projects or programmes as a result of the policies and processes adjustment;

base capex low incentive rate means 15%;

base capex standard incentive rate means 33%;

base capex programme threshold means, $20 million, where the last asset delivered by a programme has a forecast commissioning date in
(a) the transition year, a threshold for the programme of $5 million;
(b) the remainder period, a threshold for the programme of $5 million; and
(c) any period other than RCP1, a threshold for the programme of $20 million;

(a) base capex project threshold means, where the last asset delivered by a project has a forecast commissioning date in the transition year, a threshold for the project of $1.5 million;
(b) the remainder period, a threshold for the project of $5 million; and
(c) any period other than RCP1, a threshold for the project of $20 million;

base capex proposal means information submitted by Transpower to the Commission for the purpose of the Commission determining the things specified in clauses 2.2.2(1) to 2.2.2(6);

Commented [TP9]: if this change (which we agree with) is to be made, then it should flow to all other relevant definitions too (e.g. “major capex project output adjustment”).
business support means costs not directly incurred in relation to the grid and incurred in relation to-
(a) information system and technology assets;
(b) office buildings;
(c) depots and workshops;
(d) office furniture and equipment;
(e) motor vehicles; or
(f) tools, plant and machinery;

C

calculation period means 20 year period commencing on the commissioning date of the last asset to be delivered by the proposed investment, save that where significant electricity market benefit or cost elements and project costs are expected to-
(a) cease to arise or be incurred during that period; or
(b) arise or be incurred thereafter,
it means the period commencing on the commissioning date of the last asset delivered by the proposed investment and terminating on the last date that significant electricity market benefit or cost elements and project costs are expected to arise or be incurred;
cap means specified grid output which limits the amount of positive revenue adjustment arising from the calculation of the grid output adjustment through the application of the grid output mechanism;
capital expenditure means costs that-
(a) have been or will be included in a value of commissioned asset, but only to the extent that the costs have been or will be included in a closing RAB value; or
(b) are a non-transmission solution;
closing RAB value means the value calculated in accordance with clause 2.2.3(4) of the Commerce Act (Transpower Input Methodologies) Determination 2010, as modified pursuant to clause 3.3.1 of that determination;
code has the same meaning as ‘code’ is defined in the Electricity Industry Act 2010;
collar means specified grid output which limits the amount of negative revenue adjustment arising from the calculation of the grid output adjustment through the application of the grid output mechanism;
Commission has the same meaning as defined in s 2 of the Act;
commissioned has the same meaning as defined in the Commerce Act (Transpower Input Methodologies) Determination 2010;
commissioning date means date the asset is first commissioned;
commissioning date assumption means the assumption made as to the commissioning date of the last asset to be delivered by a major capex project;
committed project has meaning specified in clause D9;
competition effects has the meaning specified in clause D6;
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;

decommissioned asset has the meaning specified in clause D9;
demand adjustment mechanism means a mechanism specified in an IPP determination which will adjust the standard incentive rate base capex allowance based on changes in demand for electricity transmission services over a regulatory period;
demand and generation scenario has the meaning specified in clause D4;

Commented [TP10]: We propose deletion of the definition. From our submission to draft decisions: We strongly oppose the Commission’s draft decision to regulate uncertainty of E&D expenditure under $20m via a baseline level with administrative update(s) using a demand trigger. We view this mechanism to be a disproportionate amount of administrative scrutiny that appears to be at odds with the decision above. Applying the proposed E&D mechanism is likely to affect our ability to invest in a dynamically efficient way (investing in the right projects at the right time).
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;
Example: ‘disclosure year 2012’ means 12 month period ending on 30 June 2012;
discount rate has the meaning specified in clause D7(3);
document has the same meaning as defined in s 2 of the Act;

electricity market benefit or cost element has the meaning specified in clause D5(1);
electricity transmission services means electricity lines services (as ‘electricity lines services’ is defined in s 54C of the Act) supplied by Transpower;
exempt major capex means the amount to which the major capex incentive rate does not apply, as determined by the Commission under clause 3.3.3(6);
existing asset has the meaning specified in clause D9;
expected net electricity market benefit has the meaning specified in clause D3(1);

F
forecast CPI means CPI, unless CPI does not apply to the period in question, in which case it means the most recent CPI extended by-
(a) in the case of a quarter for which a forecast of the annual percent change in the headline CPI contained in the current Monetary Policy Statement issued by the Reserve Bank of New Zealand has been made, that forecast; and
(b) in respect of later quarters, the forecast last applying under paragraph (a) adjusted such that an equal increment or decrement made to that forecast for each of the following three years results in the forecast for the last of those years being equal to the target midpoint for the change in headline CPI set out in the Monetary Policy Statement referred to in paragraph (a);
forecast FX rate means, in respect of each relevant currency, forecast weighted average exchange rate that Transpower can reasonably be expected to obtain in its foreign currency transactions for the base capex or major capex in question;

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

grid output adjustment means the monetary amount of after-tax economic gain or loss to take account of deviation by Transpower from its grid output targets 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, or investment in the grid, or works enabling 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 quantum of output at which the grid output adjustment will be nil;

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

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

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

identified programmes has the meaning specified in clause F2;

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

(a) Transpower’s telecommunications network;

(b) SCADA; 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 re-enforcement, grid investment or a non-transmission solution;

*investment option* has the meaning specified in clause D2;

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

*IPP* means individual price-quality path;

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

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

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

**K**

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

**L**

*listed project* means a base capex project or base capex programme that:

- is identified as a 'listed project' in an IPP determination; and
- complies with the requirements of clause 2.2.3(2);

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

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

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

major capex efficiencies means monetary amount equivalent to Transpower’s total net cost efficiencies during the regulatory period in question reflected in its major capex for major capex projects commissioned during that period; major capex efficiency adjustment means monetary amount of after-tax economic gain to take account of major capex efficiencies; major capex expenditure adjustment means the amount calculated as specified in clause B5;

major capex incentive rate means the rate determined by the Commission in respect of a major capex project under clause 3.3.3(6), in respect of a regulatory period, percentage of the major capex efficiencies recoverable by Transpower;

major capex overspend adjustment means monetary amount of after-tax economic loss to take account of any major capex in excess of the relevant major capex allowance; major capex project means a particular project of major capex-
   (a) undertaken to address or enable a specific investment need;
(b) that is either or both of the following things:
   
   (i) a transmission investment, including a variant on another transmission investment by virtue of a non-negligible change in the commissioning date assumption; or
   
   (ii) a non-transmission solution, including a variant on another non-transmission solution by virtue of a non-negligible change in the completion date assumption;

major capex project output adjustment means monetary amount of after-tax economic loss to take account of deviation by Transpower from its approved major capex project outputs calculated by the Commission as specified in clause B3;

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

major capex project (staged) means two or more major capex projects that together address an investment need, with any one such major capex project being referred to as a stage of that major capex project (staged);

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

major capex sunk costs adjustment means monetary amount of after-tax economic gain calculated by the Commission as specified under clauses 3.3.5 and B4 at its discretion to take account of costs arising for Transpower in respect of an approved major capex project which Transpower has decided not to proceed with or in respect of which the approval expiry date has passed;

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

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

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

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

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

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

modelled project has the meaning specified in clause D9;

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

Commented [TP20]: As written, this definition could imply that both stages of a major capex project (staged) need to be greater than $20m. We suggest the general term projects to describe the stages of the whole major capex project, to ensure each stage does not need to be greater than $20m.

The defined term 'project' would appear to be broad enough to apply to land purchases, or undertaking detained design work to produce better cost estimates i.e. both capex and opex. (Project means temporary endeavour requiring concerted effort, which is undertaken to create defined outcomes).

Commented [TP21]: The actual calculation is in clause B4. Clause 3.3.5 is about process.

Also, when the term is used in clause 3.3.5(1) it is not necessary to say "in accordance with clause B4" because that is already part of the definition (so effectively saying it twice). The change has been made for other definitions in clause 3.2.2(1)(a) and (b).
new investment contract means contract for the provision of new electricity transmission services between Transpower and another person in respect of which—

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

(i) are reasonable; or

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

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

(i) affected customers to make or approve reasonable price-quality trade-offs; and

(ii) the competitive provision of new electricity transmission services by parties other than Transpower;

non-transmission solution means costs incurred by Transpower—

(a) in relation to one or more of the matters listed in (c) and on a project that avoids or defers a transmission investment where the transmission investment would—

(i) be major capex; and

(ii) satisfy the investment test if the relevant investment options consisted solely of those that are transmission investments; or

(b) in relation to one or more of the matters listed in (c) and to manage operational risks such as network constraints or unavailability of assets while a major capex project is being developed or under construction;

(c) (i) electricity generation;

(ii) energy efficiency;

(iii) demand-side management;

(iv) local network augmentation;

(v) improvement to the systems and processes of the system operator;

(vi) the provision of ancillary services; and

(vii) grid scale storage;

(a) in relation to one or more of the following things:
(i) electricity generation;
(ii) energy efficiency;
(iii) demand-side management;
(iv) local network augmentation;
(v) improvement to the systems and processes of the system operator; and
(vi) the provision of ancillary services; and

(b) on a project that avoids or defers a transmission investment where the transmission investment would:
   (i) be major capex; and
   (ii) satisfy the investment test if the relevant investment options consisted solely of those that are transmission investments;

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 an notice issued by the Commission under 532D notice of the Act requiring information on proposed operating expenditure in respect of the IPP for the next regulatory period in respect of an IPP;

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

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

policies means documented and director or management-approved short-term and long-term procedures, processes, strategies, guidelines, plans and approaches including those relating to-
   (a) asset management;
   (b) asset security;
   (c) augmentation and planning;
(d) business cases, including cost-benefit analyses;
(e) **capital expenditure** (e.g. capital expenditure approval and replacement);
(f) condition monitoring and replacement;
(g) corporate governance;
(h) demand management;
(i) disaster recovery;
(j) energy supply and **consumer** growth forecasting;
(k) information technology;
(l) internal reviews;
(m) investment decision making and evaluation;
(n) land and easement acquisition;
(o) network spares;
(p) prioritisation and options analysis;
(q) procurement;
(r) project management;
(s) regulatory compliance;
(t) risk management and assessment;
(u) self insurance; or
(v) site and line safety;

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

(a) involving forecast capital expenditure of greater than $20 million in respect of which the requirements of clause 3.2.1 were not met in all material respects; or

(b) in respect of which Transpower has acted otherwise than in accordance with policies or processes specified in clause 3.2.2 except to the extent that the Commission is satisfied that it was appropriate for the relevant policies or processes not to have been followed for the project or programme;

**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 D5(2) and its quantum is calculated in accordance with clause D7(1);

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

RCP1 means regulatory period commencing on 1 April 2011 and ending on 31 March 2015; RCP2 means the regulatory period commencing on 1 April 2015 and ending on 31 March 2020;

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

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

regulatory period means period to which an IPP determination relates;

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

(a) must at least-

(i) specify base capex categories; and
(ii) require quantitative actual and forecast information in respect of those categories;
(iii) require quantitative actual and forecast information in respect of identified programmes; and

(b) may contain instructions on how they must be completed;

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

remainder period means period from disclosure year 2013 to disclosure year 2015 inclusive;
revenue-linked grid output measure means grid output measure to which the grid output mechanism applies;

SCADA means systems for monitoring and controlling, from one location, equipment in different locations, using computing technologies;
s53ZD notice means a notice issued by the Commission to Transpower under section 53ZD of the Act;
sensitivity analysis has the meaning specified in clause D8;
services has the same meaning as defined in s 2 of the Act;
standard incentive rate base capex allowance means the amount subject to the base capex standard incentive rate as determined by the Commission under clause 2.2.2(1);
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 s 2 of the Act, and supplied must be construed accordingly;

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

transition year means disclosure year 2012;

transmission investment means investment in the grid or works enabling 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);
W

working day has the same meaning as defined in s 2 of the Act.
PART 2 PROCESSES PRIOR TO A REGULATORY PERIOD

SUBPART 1 Integrated transmission plan

2.1.1 Integrated transmission plan
(1) Transpower must submit an integrated transmission plan in accordance with Part 7 to the Commission no later than the first working day in the December sixteen months before the start of a regulatory period.

(2) Transpower must publish make available publicly on its website a copy of the information most recently 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 November and terminating on the last working day in February prior to the December sixteen months before the start of a regulatory period, the Commission and Transpower must use reasonable endeavours to agree, in respect of that next regulatory period-
   (a) the form and content of regulatory templates; and
   (b) the categories or criteria used to define identified programmes.

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

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

2.2.2 Commission evaluation and decisions
(1) No later than the last working day in the August of the year before the start of a regulatory period, the Commission will, subject to subclause (8), determine in respect of that regulatory period-
   (a) a standard incentive rate base capex allowance and low incentive rate base capex allowance for each disclosure year of the regulatory period; and
   (b) the quantum of the base capex incentive rate to apply.
(e)(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) at Transpower’s request, one or more asset capability grid output measures;
(iv) at Transpower’s request, one or more asset health grid output measure; and

at Transpower’s request, any other grid output measure;

(e)(c) 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; and

(2) When determining the base capex allowances in subclause (1)(a), the Commission will also specify the-

(a) the relevant low incentive rate base capex projects if it determines a low incentive rate base capex allowance;
(b) forecast CPI used to determine the base capex allowances;
(c) forecast FX rates used to determine the base capex allowances; and
(d) amount or percentage of the base capex allowances to which the forecast FX rates may apply.

(3) A base capex project or base capex programme may only be specified as a low incentive rate base capex project if-

(a) the Commission considers that-

(i) it will require capital expenditure greater than $20 million; and
(ii) there are no workable alternative capital expenditure or operating expenditure options to it.
(4) When determining the revenue-linked grid output measures mentioned in subclause (1)(b), the Commission may also determine in accordance with clause A4 one or more of those same grid output measures that are not linked to revenue.

(5) When determining the revenue-linked grid output measures in subclause (1)(b) the Commission will also determine one or more asset health grid output measures.

(6) The asset health grid output measures determined under subclause (5) may at the discretion of the Commission be-
   (a) revenue-linked grid output measures determined in accordance with clauses A6 and A7 in which case subclause (1)(c) will apply; or
   (b) not linked to revenue determined in accordance with clause A5;
   (c) in accordance with clause A4, none, one or more of each of the following grid output measures to which the grid output mechanism will not apply:
      (i) performance-based measures;
      (ii) asset capability grid output measures; and
      (iii) asset health grid output measures.
   (f) In its decision specifying the matters specified in subclause (1), the Commission will also specify-
      (i) forecast CPI used to determine the base capex allowances;
      (ii) forecast FX rates used to determine the base capex allowances; and
      (iii) amount or percentage of the base capex allowances to which the forecast FX rates may apply.

(2)(7) Where the Commission considers that, for the purpose of deciding the matters specified in this clause, it requires further information of Transpower, the Commission will request provision by Transpower to provide such information by a reasonable future date specified by the Commission such that it is reasonable for Transpower to comply with.

(3)(8) For the purpose of subclause (1), the Commission will only determine the things specified in this clause that subclause after-
   (a) consulting in any manner specified in clause 8.1.1; and
   (b) evaluating in accordance with Part 6-
      (i) the base capex proposal; and
      (ii) any further information received pursuant to subclause (7).
(4)(9) The Commission will publish its decisions under this clause as soon as reasonably practicable.

2.2.3 Listed projects, demand adjustment mechanism and low incentive base capex projects specification

(1) The Commission may specify the following matters identified listed projects in an IPP determination:

(a) base capex projects or base capex programmes that are listed projects;

(b) a demand adjustment mechanism, including the quantum of the standard incentive rate base capex allowance that will be subject to the demand adjustment mechanism; and

(c) low incentive rate base capex projects.

(1)(2) A base capex project or base capex programme may only be specified as a listed project if it is a base capex project or base capex programme:

(a) that the Commission considers:

(i) will require capital expenditure of greater than $20 million; and

(ii) is reasonably required by Transpower, with at least one (or more) assets likely to 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 allowance for the regulatory period.

SUBPART 3—Major capex

2.3.1 Major capex incentive rate

(1) The major capex incentive rate in respect of RCP1 is specified in the IPP determination applying to RCP1.

(2) The Commission will, by the last working day in the August before the start of a regulatory period which is not RCP1 determine the quantum of the major capex incentive rate to apply to that regulatory period.

(3) The Commission will publish its determination as soon as reasonably practicable.

Commented [TP33]: We propose removing 1(c). It is not clear why phrase is included here, when the determination of this is already covered in clause 2.2.2(2) and (3).
PART 3 PROCESSES DURING AND RELATING TO A PAST REGULATORY PERIOD

SUBPART 1 Integrated transmission plan

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

SUBPART 2 Base capex

3.2.1 Base capex projects or programmes 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.
(c)(b) In respect of each base capex project or base capex programme, Transpower must act in accordance with each relevant policy and process as specified in its base capex proposal.

3.2.2 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 in accordance with clause B1; and
(b) policies and processes adjustment in accordance with clause B2, subject to subclause (4); and
(c) grid output adjustment in accordance with clause B3.

(2) Where the Commission considers that it requires further information for the purpose of making reviewing the calculations and deciding on the adjustments things specified in subclause (1), the Commission will request provision by Transpower to provide of such information by a reasonable future date specified by the Commission such that it is reasonable for Transpower to comply with.

(3) For the purpose of subclause (1), the Commission will not calculate the adjustments items specified in that subclause (1) until after having evaluated relevant information disclosed pursuant to:

(a) a request made pursuant to subclause (2):

(b) an ID determination notice,

(c) a notice made under s53ZD notice of the Act.

(4) For the purpose of subclause (1)(b), where in respect of the same project or programme Transpower has not complied with both clause 3.2.1 and clause 3.2.2, the Commission will disregard one of those instances of non-compliance for the purpose of calculating the policies and processes adjustment in accordance with clause B2.

(5) The Commission will publish its decision under this clause of the matters referred to in subclause (1) as soon as reasonably practicable.

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

(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 demand and generation scenarios in clause D4(1) of Schedule D;

(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 commissioning prices, 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) information that the listed project meets the criteria for the base capex low incentive rate as set out in Schedule A4, if it requests that rate to apply to the additional base capex;

(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 base capex in respect of a listed project it requires further information other than that provided in Transpower’s application, the Commission will request provision by Transpower of such information by a reasonable future date specified by the Commission such that it is reasonable for Transpower to comply with.

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

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

(b) the criteria in clause 6.1.1(a), clause 6.1.1(2) and Schedule A2 that would apply if this application was part of the base capex proposal and the listed project was an identified programme and, where relevant, Schedule A.
(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; and

(c) specify 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.

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

SUBPART 3 Major capex projects

3.3.1 Consultation programme and approval timeframes

(1) Transpower must notify the Commission of its intention to plan a major capex project, including whether or not the project is part of a proposed major capex project (staged) that Transpower considers may become a proposed investment.

(2) In the two month period following such notification, the Commission and Transpower must use reasonable endeavours to agree, in respect of that major capex project-

(a) in accordance with clause 8.1.3-

(i) a consultation programme for a transmission investment or non-transmission solution; and

(ii) an approach to ensure appropriate consideration of non-transmission solutions to meet the investment need; and

(b) a proposed application submission date; and

(b) a proposed approval timeframes.

(3) For the purpose of assisting interested persons, the Commission may include in the consultation programme referred to in subclause (2)(a)(i) such consultation processes that the Commission intends to follow, but Transpower is not required to agree such processes.
Where no agreement is made on one or more of the things referred to in subclause (2), the Commission will, by one week after the end of the period referred to in subclause (2), having regard to the views expressed by Transpower during that period, specify whichever of the following has not been agreed:

(a) a consultation programme in respect of a transmission investment or non-transmission solution, in accordance with clause 8.1.3;
(b) an approach to ensure appropriate consideration of non-transmission solutions to meet the investment need, in accordance with clause 8.1.3;
(c)(d) a proposed application submission date; and
(e)(d) a proposed approval timeframe.

The Commission and Transpower must publish the:

(a) consultation programme;
(b) approach for consideration of non-transmission solutions;
(c) proposed application submission date; and
(d) proposed approval timeframe,
as soon as reasonably practicable.

The Commission and Transpower must-

(a) regularly review the published-
   (i) consultation programme; and
   (ii) approach for consideration of non-transmission solutions;
   (iii) proposed application submission date; and
   (iv) proposed approval timeframe,
as to whether they remain appropriate and reasonable; and
(b) the Commission may amend one or more of those things to ensure that they remain appropriate and reasonable.

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

3.3.2 Major capex proposals

A major capex project must be approved by the Commission in order that Transpower can recover the capital expenditure relating to that major capex project under an IPP.
(2) **Transpower** must submit a **major capex proposal** to the **Commission** in respect of a proposed investment.

(3) **Transpower** may submit a **major capex proposal** at any time during a regulatory period.

3.3.3 Commission evaluation and approvals

(1) The **Commission** will decide, with respect to a **major capex proposal** where, to either-

   (a) Transpower has not complied with the requirements specified in clause 3.3.1; or

   (b) the proposal does not comply with clause 7.4.1 to approve the proposed investment.

(2) The **Commission** will decide, with respect to the proposed investment, to either-

   (a) approve the **major capex project**; or

   (b) **decline** the major capex project.

(3) Where the **Commission** considers that for the purpose of deciding whether to approve or decline the major capex project, it requires further information of Transpower than that provided in the major capex proposal, the **Commission** will request provision by Transpower to provide such information by a reasonable future date specified by the Commission such that it is reasonable for Transpower to comply with.

(4) The **Commission** may only decide to approve or **decline** the **major capex project proposed investment** after-

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

   (b) having evaluated, in accordance with Part 6-

      (i) the major capex proposal; and

      (ii) any further information received pursuant to subclause (3).

(5) The **Commission** may reject the major capex proposal where-

   (a) Transpower has not complied with the requirements specified in clause 3.3.1; or

   (b) that proposal does not comply with clause 7.4.1.

(6)(5) Where a major capex project proposed investment is approved by the **Commission** the-

   (a) major capex allowance;

   (b) maximum recoverable costs;
(e)(b) recovery scheme;
(d)(c) approved major capex project outputs;
(a)(d) approval expiry date;
(f) P50;
(e)(e) commissioning date assumption; and
(h)(f) completion date assumption,
applying in respect of the approval are those specified by Transpower in the relevant major capex proposal as applicable to the transmission investment or non-transmission solution.

(6) Where a major capex project is approved by the Commission the-
   (a) major capex allowance;
   (b) major capex incentive rate; and
   (c) exempt major capex,
applying in respect of the approval are those specified by the Commission as applicable to the transmission investment or non-transmission solution.

(7) Where a major capex project is approved by the Commission the major capex incentive rate is 15% unless a different rate is specified by the Commission.

(7)(8) The Commission will publish its decisions under this clause subclause (1) as soon as reasonably practicable.

3.3.4 Amendments to approved investments

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

Commented [TP48]: Our submission to Capex IM draft decisions
"Although we consider our expected costs (P50) for a major capex project will benefit from the process changes such as staged approvals, any proposed changes to the P50 level by the Commission after application would need robust justification. The process for project approval should include a draft determination so that Transpower has a right of reply."

Commented [TP49]: Subclause (1) is not functionally subject to subclause (3) anymore.
(b) the Commission and Transpower must use reasonable endeavours to agree approval timeframes in respect of the application, and where no agreement is made by two weeks from the date of receipt of the application then the Commission will, having regard to the views expressed by Transpower during that two week period, specify the approval timeframes; and

(c) the Commission will not make an amendment under subclause (1) until after having evaluated, in accordance with Part 6-

(i) the application; and

(ii) any information received pursuant to subclause (7).

(3) For the purpose of subclause (1), an amendment may be made by the Commission must make reasonable efforts to determine any amendments under subclause (1) within the following timeframes-

(a) an approval expiry date, by no later than the approval expiry date previously approved; and

(b) any other thing specified in subclause (1), subject to subclause (7), by no later than the last working day of the first November after the disclosure year in which the commissioning date or completion date occurs.

(4) Where an amendment is made by the Commission, to the extent relevant to the application in question, the amended-

(a) major capex allowance;

(b) maximum recoverable costs; and

(c) recovery scheme;

are those specified by the Commission, and the amended-

(d) approved major capex project outputs; and

(e) approval expiry date,

are those proposed by Transpower in the relevant application.

(5) Where the Commission makes an amendment to the approved major capex project outputs under subclause (1), the Commission may also make commensurate amendments to any of the major capex allowance and exempt major capex.

(5)(6) Where the Commission makes any amendment under subclause (1), the Commission may also make amendments to any of the-

(a) P50;

(b) commissioning date assumption; and
(6)(7) Where the Commission considers that, for the purpose of deciding whether to make an amendment under subclause (1) of a major capex project, it requires further information than that provided in Transpower’s application, the Commission may request Transpower to provide such information by a reasonable future date specified by the Commission such that it is reasonable for Transpower to comply with.

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

3.3.5 Major capex sunk costs adjustment

(1) At Transpower’s application, where Transpower has incurred capital expenditure in relation to an approved major capex project, but prior to the commissioning date or completion date-

(a) Transpower has decided not to proceed with the investment; or

(b) the approval expiry date has passed,

the Commission may, at its discretion, decide to calculate a major capex sunk costs adjustment in accordance with clause B4.

(2) For the purpose of subclause (1)-

(a) Transpower must comply with the requirements in clause 7.4.3; and

(b) the Commission will not exercise its discretion pursuant to subclause (1) until after having evaluated, in accordance with Part 6-

(i) the application; and

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

(3) Where the Commission considers that, for the purpose of exercising its discretion pursuant to subclause (1), it requires further information than that provided in Transpower’s application, the Commission will request Transpower to provide such information by a reasonable future date specified by the Commission such that it is reasonable for Transpower to comply with.

(4) Where the Commission calculates a major capex sunk costs adjustment pursuant to subclause (1), any approval for the major capex project is treated as revoked.
(5) The Commission will publish its decision under this clause subclause (1) as soon as reasonably practicable.

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

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

(2) For the purpose of subclause (1), the Commission will not make any decision required by that subclause until after having evaluated, to the extent relevant to the decision-

(a) the information disclosed by Transpower in respect of the last completed disclosure year pursuant to either or both of-
   (i) an ID determination; or
   (ii) a notice made under s53ZD notice of the Act; and

(b) any application received under clause 3.3.4.

(3) The Commission will publish its decisions under this clause subclause (1) as soon as reasonably practicable.

3.3.7 Overspend and Major Capex Project Output Adjustments

(1) The Commission will calculate, by the last working day of the first November after each disclosure year, subject to subclauses (2), and clause B3B5, the quantum of the major capex overspend adjustment in accordance with clause B4 in respect of assets which are-

(a) included in a major capex project where the last asset delivered by the project has a commissioning date in that disclosure year;

(b) not referred to in paragraph (a) and having a commissioning date in that disclosure year.

(1) The Commission will calculate, by the last working day of the first November after each disclosure year, subject to subclauses (2), and clause B3B5, the quantum of the major capex project output adjustment in accordance with clause B3B5 in respect of each major capex project where, to the extent the project is a-

(a) transmission investment, the last asset delivered by the project has a commissioning date in that disclosure year; or

(b) non-transmission solution, it has a completion date in that disclosure year; and

for which an approval under clause 3.3.3 applies at the commissioning date or completion date referred to in paragraph (a) or (b) respectively.
(2) For the purposes of subclauses 3.1.1(1) and (3)(2), the Commission will not make the calculations referred to in those subclause (1) until after having evaluated:

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

(i) an ID determination; or

(ii) a notice made under s53ZD notice of the Act; and

(b) any application relevant to the calculations received under clause 3.3.4; and

(c) any material received pursuant to subclause (4).

(3) For the purpose of subclause (1)(2), the Commission will not make the calculation referred to in subclause (1) until after having made a decision under clause 3.3.6.

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

(5) The Commission will publish its decisions under this clause as soon as reasonably practicable.
PART 4 PROCESSES FOLLOWING A REGULATORY PERIOD

4.1.1 Major capex – efficiency adjustment after regulatory period

(1) At Transpower’s application, the Commission will calculate, by the last working day of the first November after the regulatory period, subject to subclause (2), and in accordance with Part 6, the quantum of the major capex efficiency adjustment in accordance with clause B7.

(2) For the purpose of subclause (1), the Commission will not make the calculations referred to in that subclause—

(a) unless Transpower has disclosed information relevant to those calculations in respect of the last completed regulatory period pursuant to either or both of—

(i) an ID determination; and

(ii) a notice made under s53ZD of the Act; and

(b) until after having evaluated—

(i) the information contained in the application;

(ii) the information referred to in paragraph (a); and

(iii) any material received pursuant to subclause (3).

(3) For the purpose of subclause (2)(b)(iii), where the Commission considers that it requires further information of Transpower for the purpose of calculating the quantum of a major capex efficiency adjustment, the Commission will request Transpower to provide such information by a date specified by the Commission such that it is reasonable for Transpower to comply with.

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

4.1.1 Major capex expenditure adjustment

(1) The Commission will calculate, by the last working day of the first November after the regulatory period, subject to subclause (2), the quantum of the major capex expenditure adjustment.

(2) The Commission will not calculate the adjustment in subclause (1) until after having evaluated relevant information disclosed pursuant to:

(a) a request made pursuant to subclause (3); or

(b) an ID determination; or

Commented [TP52]: For the timing of the adjustment, we suggest either:

• the adjustment is made a year earlier each RCP, so that the adjustment can be included in the forecast MAR for the following RCP. (The wording of “where n=” in Schedule B5 would need to be changed so that it covers all major projects completed up to the penultimate year of the RCP and covering the final year of the previous RCP in RCP4 onwards.)

or

• the adjustment number could be one of the numbers we forecast as part of the forecast MAR (in the penultimate year) and it will then simply wash up when we get to the end of the RCP

Also, need to clarify that the new efficiency policy applies only to Commission-approved major capex.

Commented [TP53]: Should be “each” regulatory period.
(c) a s53ZD notice.

(3) Where the Commission considers that it requires further information for the purpose of calculating the adjustment in subclause (1) the Commission will request Transpower to provide such information by a reasonable future date.

(4) The Commission will publish its decision under this clause as soon as reasonably practicable.
PART 5 CONSEQUENCES OF COMMISSION NOT COMPLYING WITH TIMEFRAMES

5.1.1 Consequences of timeframes not being met by Commission

(1) None of the Commission’s functions or decisions described in this determination are invalidated on account of any Commission failure to meet-
   (a) timeframes applying to the Commission specified in this determination; or
   (b) approval timeframes.

(2) Notwithstanding subclause (1), the Commission will, as soon as reasonably practicable after it believes that a timeframe applying to the Commission-
   (a) is not likely to be met; or
   (b) has not been adhered to,
notify Transpower and, where relevant, interested persons, of the new timeframe that applies.
PART 6 COMMISSION EVALUATION OF MATTERS RELATING TO CAPITAL EXPENDITURE

6.1.1 Evaluation criteria

(1) In evaluating anything pursuant to this Part, the Commission may:
   (a) take into account-
       (i) the views of any person the Commission has consulted pursuant to clause 8.1.1; and
       (ii) any other information it considers relevant; and
   (b) engage any appropriately qualified person to assist the Commission with its evaluation.

(2) The Commission will apply the following criteria in evaluating base capex proposals, major capex proposals and applications under clause 3.3.4:
   (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 3.3.4 in accordance with the following criteria:
   (a) the extent to which each key factor relevant to the proposed amendment-
       (i) was reasonably foreseeable by Transpower before the major capex project was approved by Commission; and
       (ii) was or is within Transpower’s control;
   (b) in relation to each key factor outside Transpower’s control-
(i) the reasonableness of any applicable mitigation strategy devised by Transpower; and
(ii) the reasonableness and extent of mitigation actions taken by Transpower;
(c) the extent to which the major capex project’s expected net electricity market benefit would be materially lower as a result of the amendment than when it was approved; and
(d) in respect of a major capex project that has already commenced, the extent to which Transpower has incurred capital expenditure by the date of the application.

(6) The Commission will also evaluate an application under clause 3.3.5 relating to the calculation of a major capex sunk costs adjustment in accordance with the following criteria:

(a) the reasons and key factors that resulted in Transpower applying for the major capex sunk costs adjustment;
(b) in relation to each such key factor, whether it-
   (i) was reasonably foreseeable by Transpower before the major capex project was approved by the Commission; and
   (ii) was or is within Transpower’s control;
(c) in relation to each key factor outside Transpower’s control, the-
   (i) reasonableness of any applicable mitigation strategy devised by Transpower; and
   (ii) reasonableness and extent of mitigation actions taken by Transpower;
(d) the reasonableness of the progress of the major capex project, including details of-
   (i) planning processes undertaken;
   (ii) resource management consents, other regulatory consents, and property rights and access rights obtained;
   (iii) construction and labour contracts and arrangements made;
   (iv) construction completed;
   (v) testing undertaken; and
   (vi) 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.

(7) The Commission will also evaluate major capex efficiencies for the purpose of calculating a major capex efficiency adjustment by taking into account:

(a) changes in forecast aggregate capital expenditure during the design and build phases of the major capex project in question;

(b) contractual arrangements, including the reasonableness of provisions relating to the sharing of risk between Transpower and its contractors; and

(c) in relation to a key factor outside Transpower’s control, the:

(i) reasonableness of any applicable mitigation strategy devised by Transpower; and

(ii) reasonableness and extent of mitigation actions taken by Transpower.
PART 7 INFORMATION REQUIREMENTS APPLYING TO TRANSPOWER

SUBPART 1 General information requirements

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

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

7.1.3 Omission of required information

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

SUBPART 2 Integrated transmission plan

7.2.1 Integrated transmission plans

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

SUBPART 3 Base capex

7.3.1 Base capex proposals

(1) A base capex proposal must-

(a) contain completed-
   (i) regulatory templates agreed pursuant to clause 2.2.1(1); or
   (ii) regulatory templates specified pursuant to clause 2.2.1(2);

(b) comply with Schedule F; and

(c) contain the certificates specified in clause 9.1.1.

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

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

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

(b) in respect of each document relied upon, an index is provided stating the-
   (i) reference to the relevant requirement or requirements of Schedule F; and
   (ii) precise reference or references within the document relied upon.
(4) For the avoidance of doubt, one physical document may contain more than one of the certifications specified in clause 9.1.1.

SUBPART 4  Major capex

7.4.1  Major capex proposals

(1) A major capex proposal must-
   (a) comply with Schedule G; and
   (b) contain the certificates specified in clause 9.2.1.

(2) The number of investment options contained in a major capex proposal must be appropriate given the magnitude of the estimated capital expenditure and the complexity of the investment need associated with the proposed investment.

(3) With respect to each investment option described in such a proposal, the-
   (a) specificity of information; and
   (b) rigour and comprehensiveness of the analysis,
   must be commensurate with the estimated capital expenditure and complexity of that option.

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

7.4.2  Amendment applications

(1) An application under clauses 3.3.4(1)(a) to 3.3.4(1)(c) to 3.3.4(1)(d) must be received by the Commission by the last working day of the September after the disclosure year in which the project in question is first commissioned.

(2) An application under clause 3.3.4(1)(d) must be received by the Commission no later than 6 weeks before the approval expiry date.

(3) An application under-
   (a) clause 1.1.1(1)(a) must contain the information specified in Schedule A Division 1;
   (b) clause 3.4(1)(a) or 3.4(1)(b) must contain the information specified in Schedule H Division 1; and
   (c) clause 3.4(1)(c) must contain the information specified in Schedule H Division 2; and
   (d) clause 3.4(1)(d) must contain the information specified in Schedule H Division 3.
(4) An application under clause 3.3.4 must contain the certificates specified in clause 9.3.1.

7.4.3 Sunk costs applications
(1) Subject to subclause (2), an application under clause 3.3.5 must-
   (a) be received by the Commission no later than 6 weeks after the approval expiry date;
   (b) contain the information specified in Schedule H Division 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).

SUBPART 5 Expected benefits and impact of proposed investments on transmission charges
7.5.1 Explanation of the expected benefits of proposed investments and their impact on transmission charges
(1) This clause applies to-
   (a) major capex proposals;
   (b) listed project applications; and
   (c) base capex proposals.

(2) All proposals and applications referred to in subclause (1) must include to the extent reasonably possible-
   (a) a description of the expected service benefits that will be delivered by the proposed investment;
   (b) a description of the expected system benefits that will be delivered by the proposed investment; and
   (c) a quantitative estimate of the expected system benefits.

   (d) details of the expected increase in transmission charges to consumers due to the proposed investments, including estimated increases in-
      (i) transmission charges per kilowatt of demand;
      (ii) transmission charges per kilowatt hours of energy supplied; and

Commented [TPS4]: Our submission to the draft decisions
"We consider the proposed new obligation for quantitative estimates for base capex proposals to be unreasonable because:
- most base capex is for replacement and refurbishment investment that is not amenable to system and service benefit
- E&D expenditure is amenable to specific project quantification, only after options investigation. Our proposed approach to the E&D portfolio is via an aggregate quantification (see Appendix A)

For base capex proposals, we consider the qualitative information at the time of the proposal, as well as periodic updates, provide efficient opportunities for consumers to review and engage with the benefits of our proposed investments.

Commented [TPS5]: These terms should be defined but may not be trivial task, as not clear what the difference between a service benefit and system benefit. For major capex and listed projects, the benefits are market benefits.

Commented [TPS6]: Request delete.
Our submission to the draft decisions
"We consider the proposed new obligation for quantitative estimates for base capex proposals to be unreasonable because:
- most base capex is for replacement and refurbishment investment that is not amenable to system and service benefit
- E&D expenditure is amenable to specific project quantification, only after options investigation. Our proposed approach to the E&D portfolio is via an aggregate quantification (see Appendix A)

For base capex proposals, we consider the qualitative information at the time of the proposal, as well as periodic updates, provide efficient opportunities for consumers to review and engage with the benefits of our proposed investments.

Commented [TPS7]: Energy supplied to whom, and by who?
This implies we would need to know each customer’s energy consumption.
Currently we provide an aggregate c/kWh derived from our conveyance of electricity. We propose to retain at aggregate level.
transmission charges for each affected EDB or direct connect consumer.

Commented [TP58]: Request delete.

Our submission to the draft decision

"However, for base capex proposals, we consider the proposed requirement is not reasonably possible. The issues are:

- difficulty in creating a credible counterfactual against which to assess the change
- deciding in advance which pricing year to apply any change in revenue to individual charges
- explaining the above processes to customers to ensure the information is relevant.

We consider the proposal for base capex would be unworkable in practice. Addressing the issues above would be complicated and we would forego more valuable business activity.

For listed projects and major capex, we consider the proposals (and the draft rule) may have merit, though we caution that charge information to customers would always be incorrect and potentially likely to mislead due to reliance on input assumptions."
PART 8 CONSULTATION

8.1.1 Consultation by Commission

(1) After receiving any base capex proposal or major capex proposal, the Commission:
   (a) must take all of the actions specified in subclause (3); and
   (b) may take the actions specified in subclause (4).

(2) The Commission may take none, any or all of the actions listed in subclauses (3) or (4) in evaluating applications received from Transpower or making decisions or calculations under:
   (a) clause 3.3.4;
   (b) clause 3.3.5;
   (c) clause 3.3.6; or
   (d) clause 3.3.7; or
   (e) clause 1.1.14.1.1.

(3) The actions referred to by subclauses (1)(a) and (2) are:
   (a) publish the relevant proposal or application;
   (b) make and publish a draft decision or decisions;
   (c) seek the written views of interested persons on anything so published; and
   (d) seek the written views of interested persons on others’ submissions.

(4) The actions referred to by subclauses (1)(b) and (2) are:
   (a) seek the views of any person the Commission considers has expertise on a relevant matter; and
   (b) hold a conference at which the views of some or all interested persons may be sought orally or in other forms of presentation.

(5) Where the Commission takes any of the actions referred to in the subclauses (3) or (4), it may do so in accordance with such timeframes and processes as it considers appropriate.

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

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

8.1.3 Consultation on major capex projects

(1) For the purpose of clause 3.3.1(2), subject to subclause (2)-

(a) the consultation programme for a transmission investment or non-transmission solution must make provision for consultation by Transpower prior to submitting a major capex proposal on such matters specified in Schedule I as are applicable; and

(b) the approach to ensure appropriate consideration of non-transmission solutions must make provision for consultation by Transpower prior to submitting a major capex proposal on such matters specified in Schedule I Division 2 as are applicable.

(2) For the purpose of subclause (1), the consultation programme and approach referred to-

(a) must have regard to:

(i) the complexity, nature and quantum of expenditure associated with the major capex project;

(ii) the likely costs and benefits arising from consultation, taking into account various stakeholder perspectives including Transpower, industry participants, proponents of non-transmission solutions, end users of electricity, and the Commission;

(iii) the urgency of the investment need that is the subject of the major capex project, including the duration of time available until a decision to proceed with options to address the investment need is required;

(iv) co-ordination between the consultation programme and the approach to considering non-transmission solutions for the major capex project in question;

(v) the extent and nature of any relevant prior consultations; and

(b) need not cover a matter specified in Schedule I where, on account of the investment need in question, the Commission is satisfied that its inclusion would be unreasonable in the circumstances.
PART 9 CERTIFICATION

SUBPART 1  Base capex proposals

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

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

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

SUBPART 1A Listed project applications

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

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

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

SUBPART 2 Major capex proposals

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

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

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

SUBPART 3 Major capex project amendment and sunk costs applications

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

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

(a) an application for amendment of components of a major capex project approved by the Commission under clause 3.3.3; or

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

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.
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.
A1 General evaluation of base capex proposals

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

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

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

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

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

(e) the dependencies between the proposed grid output measures and the proposed base capex allowances at the level of the grid and for each base capex category;

(f) the dependencies between the proposed grid output targets and the proposed base capex allowances at the level of the grid and for each base capex category;

(g) the extent to which the grid output targets were met in the previous regulatory period;

(h) the overall deliverability of the proposed base capex during the current regulatory period;

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

A2 Evaluation of identified programmes

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

A3 Evaluation techniques

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

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

A4 Criteria for considering the low incentive rate base capex allowance

When considering the low incentive rate base capex allowance, the Commission will evaluate whether the project or programme for which Transpower requests the base capex low incentive rate to apply meets the following criteria:

(a) it will require capital expenditure greater than $20 million; and
(b) there are no workable alternative capital expenditure or operating expenditure options to it.

Commented [TP60]: We consider the criterion inappropriate. There may be other options that are “workable” but are more expensive than the low incentive rate base capex project being considered. Workability is not a recognised investment test. If this criterion is retained, “alternatives” would be a better word than “options” and there should be some mention of the alternatives meeting the same investment need.

We seek clarification on how the Commission could consider that “there are no workable alternative capital expenditure or operating expenditure options to it.”

Commented [TP61]: For the ‘low incentive rate’ projects, the draft determination (DD) schedule F2 (3) provides for our base capex proposal to identify base capex projects as ‘low incentive rate’ projects if a project meets criteria of ‘no workable alternative capex or opex options’. Transpower may not be able to conclude whether a project meets this criterion before an RCP proposal (we would need to conduct a full investigation first).

We seek the ability for Transpower to be able to re-classify base capex projects to a ‘low incentive rate’ project during a RCP.
**A4A5. Criteria for considering grid output measures**

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

(a) the extent to which a measure is a recognised measure of either or both of the following things:
   (i) risk in the supply of electricity transmission services; and
   (ii) performance of the supply of electricity transmission services.

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

(c) whether the proposed measure was devised in accordance with the policies and processes referred to in the base capex proposal, including consultation processes; and

(d) the extent to which the measure aligns with the business processes used by Transpower in its supply of electricity transmission services.

**A5A6. 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 measure is a recognised measure of grid outputs that are valued by consumers;

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

(c) whether a measure is quantifiable, controllable by Transpower, auditable and replicable over time.

**A6A7. Criteria for considering matters relating to revenue-linked grid output measures**

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

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

(b) quantification of relationship between base capex and the grid output both-
(i) within the regulatory period in question; and
(ii) over the longer term;

(c) the extent of the likely effect of factors unrelated to investment that may affect the grid output, such as-
   (i) natural degradation in asset condition;
   (ii) impact of changes in loading of the grid; and
   (iii) extreme weather events;

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

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

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

REVENUE ADJUSTMENTS

cl. (1), (1), (1)(4)(1.1.2(1), (1), 1.1.1(1)(4)3.1.1.2

DIVISION 1  BASE CAPEX AND GRID OUTPUT ADJUSTMENTS

B1 Calculation of annual 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.

(1)(2) Subject to subclause {4}, the quantum of the standard incentive rate base capex
expenditure adjustment base capex expenditure adjustment 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% determination in accordance with clause 2.2.2</td>
</tr>
<tr>
<td>(b)</td>
<td>adjusted standard incentive rate base capex allowance</td>
<td>(d + d' + e + f + h)</td>
</tr>
<tr>
<td>(c)</td>
<td>aggregate capital expenditure that is base capex subject to the base capex standard incentive rate resulting in assets first commissioned in the disclosure year</td>
<td>base capex annual information required by an ID determination or a s53ZD notice</td>
</tr>
<tr>
<td>(d)</td>
<td>standard incentive rate base capex allowance</td>
<td>determination in accordance with clause 2.2.2(1)(a)</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 to be used when calculating maximum allowable revenue or forecast maximum allowable revenue in applying an IPP determination</td>
<td>approved in accordance with clause 3.2.3(4) and 3.2.3(5)</td>
</tr>
</tbody>
</table>
(3) Subject to subclause (4), the quantum of the low incentive rate base capex expenditure adjustment is calculated in accordance with the following formula:

\[ a^* (b^* - c^*) \]

<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</td>
<td>( d^* + d'^* + e^* + f^* )</td>
</tr>
<tr>
<td>( c^* )</td>
<td>aggregate capital expenditure that is base capex subject to the base capex low incentive rate in the disclosure year</td>
<td>base capex information required by an ID determination or a s53ZD notice</td>
</tr>
<tr>
<td>( d^* )</td>
<td>low incentive rate base capex allowance</td>
<td>in accordance with clause 2.2.2(1)(a)</td>
</tr>
</tbody>
</table>

Commented [TP63]: We query why there is no equivalent “g” variable in clause B1(3).

Commented [TP64]: “standard incentive” missing.

Commented [TP65]: We consider these words are redundant.

Commented [TP66]: “standard” missing.

Commented [TP67]: Should be “became.”

Commented [TP68]: In our submission to draft decisions: We strongly oppose the Commission’s draft decision to regulate uncertainty of E&D expenditure under $20m via a baseline level with administrative update(s) using a demand trigger. We view this mechanism to be a disproportionate amount of administrative scrutiny that appears to be at odds with the decision above. Applying the proposed E&D mechanism is likely to affect our ability to invest in a dynamically efficient way (investing in the right projects at the right time). Propose delete adjustment term “h”.

Commented [TP69]: We do not support the demand adjustment policy.

A comparator is missing (forecast demand is not compared to anything else in this description).
d'** monetary amount of approved base capex in respect of listed projects subject to the base capex low incentive rate to be used when calculating maximum allowable revenue or forecast maximum allowable revenue in applying an IPP determination

\[ \text{in accordance with \text{ clause 3.2.3(4) and 3.2.3(5)}} \]

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 d'**

\[ \text{base capex information required by an ID determination or a s53ZD notice} \]

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 d'**

\[ \text{base capex information required by an ID determination or a s53ZD notice} \]

(2)(4) For the purposes of subclauses (2) and (3), in calculating the amounts or values for one or more of c, e, f and g, c*, e*, and f* the Commission need not use the amounts or values disclosed by Transpower 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.

82 Calculation of base capex annual policies and processes adjustment

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>policies and processes adjustment</td>
<td>((a \times h)+(a \times h'))</td>
</tr>
</tbody>
</table>
For the purpose of subclause (1), in calculating the amounts or values for one or more of \( h \) or \( h' \), the Commission need not use the amounts or values for \( h \) and \( h' \) disclosed by Transpower in the base capex annual information and may instead, having regard to the views of interested persons, use the amounts or values that it considers are correct in the circumstances.
Calculation of annual grid output adjustment

(1) Subject to subclause (2), and (3) the quantum of the grid output adjustment 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>grid output adjustment</td>
<td>grid output adjustment in respect of the revenue-linked grid output measure in question</td>
<td>( \sum_i \max(l(j-n), \min(l(m-n), l(k-n))) )</td>
</tr>
<tr>
<td>i</td>
<td>collar in respect of the revenue-linked grid output measure in question</td>
<td>determination in accordance with clause 2.2.2(1)(c)</td>
</tr>
<tr>
<td>j</td>
<td>cap in respect of the revenue-linked grid output measure in question</td>
<td>determination in accordance with clause 2.2.2(1)(c)</td>
</tr>
<tr>
<td>k</td>
<td>grid output incentive rate in respect of the revenue-linked grid output measure in question</td>
<td>determination in accordance with clause 2.2.2(1)(c)</td>
</tr>
<tr>
<td>m</td>
<td>output achieved in respect of the revenue-linked grid output measure in question</td>
<td>base capex annual information required by an IPP determination ID determination or a s53ZD notice</td>
</tr>
<tr>
<td>n</td>
<td>grid output target in respect of the revenue-linked grid output measure in question</td>
<td>determination in accordance with clause 2.2.2(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.
DIVISION 2  MAJOR CAPEX ADJUSTMENTS

84 Calculation of major capex overspend adjustment

(1) The quantum of the major capex overspend adjustment, subject to subclause (2), is equal to the present value of the after-tax revenue expected to be recovered by Transpower under one or more IPP determinations in respect of the inclusion of the excess amount in one or more closing RAB values.

(2) For the purpose of subclause (1),
   (a) the present value is calculated using a discount rate consistent with the WACC applicable to the IPP in respect of the disclosure year in question; and
   (b) in calculating the after-tax revenue expected to be recovered by Transpower the inclusion of any revenue adjustment calculated under this clause in the revenue calculation of any IPP determination must be disregarded.

(3) In this clause ‘excess amount’ means—
   (a) in respect of assets for which an approval by the Commission under clause 3.3.3 applies at the commissioning date of the last asset to be delivered by the project, the amount by which the capital expenditure relating to the assets exceeds the adjusted major capex allowance; and
   (b) for all other assets, the amount of capital expenditure relating to the assets in question that is major capex.

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>adjusted major capex allowance</td>
<td>$a + p + q + r$</td>
</tr>
<tr>
<td>$a$</td>
<td>major capex allowance</td>
<td>approval in accordance with Part 3 Subpart 3</td>
</tr>
<tr>
<td>$p$</td>
<td>adjustment correcting for disparity between forecast CPI and actual CPI in respect of $a$</td>
<td>major capex annual information required by an ID determination or a s53ZD notice</td>
</tr>
</tbody>
</table>
For the purpose of subclause (4), in calculating the amounts or values for one or more of \( p \), \( q \), and \( r \), the Commission need not use the amounts or values of \( p \), \( q \), and \( r \) disclosed by Transpower in the major capex annual information and may instead, having regard to the views of interested persons, use the amounts or values that it considers are correct in the circumstances.

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

**B583 Calculation of major capex project output adjustment**

(1) Subject to subclause (2), the quantum of the **major capex project output adjustment** is calculated in accordance with the following formula: \( s \times t \)

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>( s )</td>
<td>major capex incentive rate</td>
<td>33%</td>
</tr>
<tr>
<td>( t )</td>
<td>aggregate capital expenditure in respect of the major capex project in question that does not deliver the approved major capex project outputs</td>
<td>major capex annual information required by an ID determination or a s53ZD notice</td>
</tr>
</tbody>
</table>

(2) For purposes of subclause (1), in calculating an amount of \( t \), the Commission need not use the value of \( t \) disclosed by Transpower in the major capex annual information and may instead, having regard to the views of interested persons, use an amount that it considers is correct in the circumstances.

Commented [TP21]: Should be 15%

From our submission to draft decisions:

We consider that any output changes for efficiency should allow a net major capex expenditure incentive of 15% (or the rate relevant to the project) under Schedule B5.

We find this incentive, and the Commission’s decision and explanations for it, to be confusing. The original objective for Schedule B3 incentive (page 54 of the 2012 Capex IM Reasons Paper) was to penalise non-delivery of outputs. However, the drafting (unchanged since 2012) does not have that effect because it requires that the incentive rate is applied to the "aggregate capital expenditure ... that does not deliver the approved ... outputs" – the strict reading of which is that the incentive penalty is calculated as 33% of any capital expenditure that does not relate to (or deliver) any project outputs.

We seek clarity on the project output adjustment policy under Schedule B3. One interpretation, (although inconsistent with the Reasons Paper), is that there is a 33% penalty on capex that has been applied to a major project’s costs, but that do not relate to that project ("aggregate capital expenditure ... that does not deliver the approved ... outputs"). If such costs were discovered, then we agree that a 33% rate should apply, because those costs should have been recorded against our base capex for the year. However, we reject the suggestion in B46 that a lower incentive rate would incentivise what would be a deliberate and incorrect recording of base capex against a major project.
Calculation of major capex sunk costs adjustment

The major capex sunk costs adjustment is equal to the amount of the major capex incurred by Transpower in respect of the major capex project in question, 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.

Calculation of major capex efficiency adjustment

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>u</td>
<td>major capex efficiency adjustment</td>
<td>( u \times v )</td>
</tr>
<tr>
<td>v</td>
<td>major capex incentive rate</td>
<td>IPP determination</td>
</tr>
<tr>
<td>u</td>
<td>major capex efficiencies</td>
<td>application by Transpower or information required by an ID determination or a s53ZD notice</td>
</tr>
</tbody>
</table>

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

Calculation of major capex expenditure adjustment

(3)(1) Subject to subclause (2), the quantum of the major capex expenditure adjustment is calculated in accordance with the following formula taking account of all approved major capex projects:

\[
\sum_{i=1}^{n} a_i (b_i - c_i - g_i)
\]

where \( n \) = number of major capex projects (excluding a stage of a major capex project staged) completed in the regulatory period to which the adjustment applies as determined in an IPP determination.

Commented [TP72]: Brackets missing around “staged”.
Commented [TP73]: We consider the Capex IM does not require anything about a particular major capex project to be determined in an IPP determination.
<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 relevant major capex project</td>
<td>is determined under clause 3.3.3(6)</td>
</tr>
<tr>
<td>b</td>
<td>adjusted major capex allowance for the relevant major capex project</td>
<td>d, e, f</td>
</tr>
<tr>
<td>c</td>
<td>aggregate capital expenditure for the relevant major capex project</td>
<td>major capex information required by an ID determination or a s53ZD notice</td>
</tr>
<tr>
<td>d</td>
<td>major capex allowance for the relevant major capex project</td>
<td>in accordance with clause 3.3.3(6)</td>
</tr>
<tr>
<td>e</td>
<td>adjustment correcting for disparity between forecast CPI that applied when the relevant major capex allowance was determined and actual CPI in respect of d</td>
<td>major capex information required by an ID determination or a s53ZD notice</td>
</tr>
<tr>
<td>f</td>
<td>adjustment correcting for disparity between forecast FX rates that applied when the relevant major capex allowance was determined and actual FX rates for each relevant currency in respect of d</td>
<td>major capex information required by an ID determination or a s53ZD notice</td>
</tr>
<tr>
<td>g</td>
<td>aggregate amount of exempt major capex in accordance with clause 3.3.3(6)</td>
<td></td>
</tr>
</tbody>
</table>
(2) For the purposes of subclause (1), in calculating the amounts or values for one or more of $c, e, f$, the Commission need not use the amounts or values in the major capex 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.
C1  Proposed investment – investment test and components

(1)  Subject to subclause (2) and (3), when deciding whether to approve a proposed investment the Commission will evaluate whether the proposed investment satisfies the investment test.

(2)  Where a proposed investment relates to the first stage(s) of a major capex project (staged), the Commission will evaluate whether the investment test is satisfied for the entire major capex project (staged).

(3)  Where a proposed investment relates to subsequent stage(s) of a major capex project (staged), the Commission will evaluate whether the investment test is satisfied for the remainder of the major capex project (staged).

(1)/(4)  The Commission will also evaluate to the extent applicable to the transmission investment or non-transmission solution in question, the following proposed components of the proposed investment:

   (a)  major capex allowance;
   (b)  maximum recoverable costs;
   (c)  recovery scheme;
   (d)  approved major capex project outputs;
   (e)  approval expiry date;
   (e)(f)  major capex incentive rate;
   (d)(g)  P50 commissioning date assumption; and
   (a)(h)  completion date assumption.

(2)/(5)  The Commission may not approve a major capex project proposed investment where, after evaluating the matters components listed in subclauses (1) to (4), it is not satisfied–

   (a)  that the investment test is satisfied as set out in subclauses (1), (2), or (3); and
   (b)  with the proposed investment in whole, including the components set out in subclause (4) taking account of its ability to specify a different major capex allowance and major capex incentive rate to those proposed; and, or in part, or
(c) with the proposed investment as a whole, which in the case of a major capex project (staged) includes, as applicable, the entire major capex project (staged) or the remainder of the major capex project (staged) that the proposed investment satisfies the investment test.

(2)(6) In evaluating the components listed in subclauses Error! Reference source not found. to (4), 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(7) with respect to the consultation programme or the approach for consideration of non-transmission solutions, Transpower has had regard to the views of interested persons; and

(e) the impact of the sensitivity analysis on electricity market benefit or cost elements of the proposed investment and investment options.

C3 Evaluation of major capex allowance and maximum recoverable costs

The Commission must have regard to at least one of the following factors when evaluating the major capex allowance and maximum recoverable costs for proposed investments and investment options:
(a) how major capex project outputs, key drivers, key assumptions, and cost modelling were used to determine the P50 and major capex allowance or maximum recoverable costs;

(b) what key assumptions were made regarding cost uncertainty in moving from a P50 forecast to the proposed major capex allowance or maximum recoverable costs;

(c) the capital costing methodology and formulation, including unit rate sources, the method used to test the efficiency of unit rates and the level of contingencies included;

(d) the impact of forecast costs on other costs of Transpower, including the relationship with operating expenditure;

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

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

C4 Evaluation of approval expiry date

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

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

(b) the effect of the changes to the commissioning date assumption or completion date assumption on the expected net electricity market benefit under the investment test;

(c) the effect of the proposed approval expiry date and the commissioning date assumption or completion date assumption in the major capex proposal;

(d) the sensitivity of the proposed approval expiry date to the key assumptions used in the major capex proposal;

(e) demand and generation scenarios; and

(f) sensitivity analysis.

C5 Evaluation of major capex project outputs

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

C6 Evaluation 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) whether the forecast cost of the project is so high such that the potential costs to consumers of overforecasting warrants a lower incentive rate, when considered against the lower incentives for efficiency;
(b) whether the cost forecast is so uncertain such that the potential costs to consumers of overforecasting warrants a lower incentive rate, when considered against the lower incentives for efficiency; or
(c) whether the potential for efficiency gains during the project is sufficiently high such that the gains to consumers from a stronger efficiency incentive warrant a higher incentive rate, when considered against any potential costs to consumers from overforecasting the allowance.

Commented [TP79]: We request the whole clause be deleted. The rationale for proposing a lower incentive rate is because Transpower is unlikely to sink capital on a high expected cost investment based on risk settings under a higher incentive rate.

If the clause must remain, we request deletion of the incorrect framing of “costs to consumers of overforecasting” because it is an inappropriate for objective evaluation.

Suggest replace with "potential risk to consumers of foregone investment benefits of Transpower not undertaking the investment".

Comment applies to (b) also.

For (c) please delete "when considered against any potential costs to consumers from overforecasting the allowance".
**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

cl. 1.1.4(1)(e), ‘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 D7(4) is likely to be disproportionately large relative to the quantum; or
(ii) its expected value cannot be calculated in accordance with clause D7(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 such an alternative percentage to 10% as proposed by Transpower in respect of a proposed investment.

DIVISION 2 MEANING OF TERMS USED IN INVESTMENT TEST

D2 Investment option

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

D3 Expected net electricity market benefit

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

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

D4 Demand and generation scenario

(1) Demand and generation scenario means-
(a) until a document described in paragraph (b) of this clause is published,
   (i) scenario specified as ‘market development scenario’ in the statement of opportunities published by the Electricity Commission in 2010; or
   (ii) reasonable variation on a scenario referred to in sub-paragraph (i), that reasonably has regard to the views of interested persons;

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

(c) reasonable variation on a description referred to in subclause 1(a)paragraph (b) that reasonably has regard to the views of interested persons.

(2) For the purpose of subclause (1)(b) and (c), a variation must-

(a) contain at least as much detail as each demand and generation market development scenario or MED scenario, as the case may be; and

(b) be feasible and reasonable with regard to at least the following factors:
   (i) existing and forecast demand;
   (ii) the grid reliability standards;
   (iii) the value of expected unserved energy;
   (iv) transfer capacities and capabilities of the grid;
   (v) the cost of supplying sufficient ancillary services;
   (vi) the cost of losses necessarily incurred in efficiently meeting demand;
   (vii) operating expenditure incurred in efficiently meeting demand by means of existing assets, committed projects, decommissioned assets and modelled projects;
   (viii) the capital cost of efficiently meeting demand by means of modelled projects;
   (ix) the timing of decommissioning an asset or removing or re-rating a decommissioned asset; and
   (x) likely range of investment options to which the investment test relates.

(3) Relevant demand and generation scenarios means-
D5 Costs or benefits

(1) Electricity market benefit or cost element means, subject to subclause (3), any of the following things received or incurred by consumers during the calculation period under the demand and generation scenario in question that 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

Commented [TP82]: This "or" rules out a combination of prescribed scenarios and variations to prescribed scenarios.
(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)(i), the value of any such benefit may not exceed the amount of the contribution committed by the third party.

(6) The land referred to in subclause (2)(a) is land that, at the time of the major capex proposal, is commissioned but which is not used by Transpower to provide electricity transmission services.

D6 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 D5(1).

D7 Quantification of costs and benefits

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

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

(3) Discount rate means-

(a) 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.
Sensitivity analysis

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

(2) For the purpose of subclause (1)(e), where paragraph (b) of the definition of value of expected unserved energy is relied on, sensitivity analysis must be undertaken in respect of variations in both the value described in that paragraph and the value described in paragraph (a) of the definition of value of expected unserved energy.

(3) For the purpose of subclause (1)(f), 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.
D9  Assets and projects

(1) **Committed project** means assets that are likely to be commissioned during the calculation period and-

(a) in relation to which all of the following are satisfied:

(i) the proponent has obtained all required planning consents, construction approvals, and licences, and fulfilled any other regulatory requirement that must be met before commencing construction;

(ii) construction has commenced or a firm commencement date for construction has been set;

(iii) the proponent has acquired or executed an agreement to acquire land (or commenced legal proceedings to acquire land), or has executed an agreement for the leasing of land, for the purposes of construction;

(iv) contracts for supply and construction of the major components of the plant and equipment (including any generating units, turbines, boilers, transmission towers, conductors, termination station equipment) have been executed (i.e. all the necessary formal legal requirements have been observed to make the contract valid and complete); and

(v) if required, contracts for the financing of the project, including any debt plans, have been executed (i.e. all the necessary formal legal requirements have been observed to make the contract valid and complete); or

(b) that is an approved investment (as ‘approved investment’ is defined in the code).

(2) **Decommissioned asset** means an existing asset in relation to which-

(a) the following things are satisfied:

(i) a final decision to decommission, remove or de-rate the existing asset after a specified date has been made and publicly announced; and

(ii) firm arrangement to directly or indirectly facilitate the decommissioning, removal or de-rating of the existing asset has been made;

(b) consents or contracts for its operation and maintenance have-

(i) been terminated; or

(ii) expired with no reasonable prospect of renewal; or
(c) agreements for early termination of consents or contracts for its operation and maintenance have been executed.

(3) **Existing asset** means any asset in operation at the time a **major capex proposal** is made.

(4) **Modelled project** means assets, other than those that are part of an **investment option**-

   (a) which are likely to exist-

       (i) as part of a **demand and generation scenario**; and

       (ii) during the **calculation period** for any **investment option** based on that scenario; and

   (b) for which the likelihood, nature and timing of their existence are affected by an **investment option** proceeding.
SCHEDULE E  INTEGRATED TRANSMISSION PLAN

cl. 7.2.1

E1  Information to be included in integrated transmission plan

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

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

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

E2  Information to be included in the ITP narrative

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

(2) Forecast expenditure in the form of a schedule in respect of each disclosure year for-

(a) operating expenditure (disaggregated by major areas of expenditure);
(b) base capex (disaggregated by major areas of expenditure); and
(c) approved major capex (disaggregated by project);

(3) Forecast grid outputs in the form of a schedule in respect of each disclosure year for-

(a) each revenue-linked grid output measure described in the base capex proposal relating to the first regulatory period to which the ITP narrative relates;
(b) all proposed grid output measures other than those referred to in (a) above described in that base capex proposal relating to the first regulatory period; and
(c) major capex project outputs assumed to be delivered by each approved major capex project;

(4) a summary of major capex projects under development, including:

(a) a summary of the key issues being addressed with reference to the planning report which is an ITP supporting document;
(b) estimates of likely capital expenditure; and
(c) estimates of project timings, including those relating to consultation periods, submissions for approval, construction, and commissioning.

E3 ITP supporting documents
the following documents, prepared or updated no more than two years before the submission date-

(a) an asset management plan that includes the information specified in clause E4;
(b) a planning report that includes the information specified in clause E5;
(c) a report setting out Transpower’s output and performance objectives that includes the information specified in clause E6.
E4  Information to be included in the asset management plan

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

E5  Information to be included in the planning report

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

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

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

(3) an approach to convert the longer term view to appropriate shorter term objectives for grid outputs.
SCHEDULE F  BASE CAPEX PROPOSAL - QUALITATIVE INFORMATION

cl. 7.3.1, 9.1.1

F1  Qualitative information required in a base capex proposal

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

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

(1) Provide a list of identified programmes means base capex projects or base capex programmes forecast to be undertaken during the next regulatory period defined by reference to one or more of the following categories or criteria-

(a) base capex categories;

(b) a classification by way of an appropriate maximum cost or expenditure threshold or another related financial measure;

(c) a an appropriate ranking system, such as the five highest cost programmes or projects;

(d) any other distinguishing characteristic or measure applicable to types of programmes or projects undertaken by Transpower,

and ‘identified programme’ means one of those base capex programmes or base capex projects

(2) Identify all proposed listed projects and explain why they meet the criteria for listed projects set out in clause 2.2.3(2);

(2)(3) Identify all proposed low incentive rate base capex projects and explain why these meet the criteria for low incentive rate base capex projects set out in A4.

F3  Overview

(1) An overview narrative on detailed commentary as to how the proposed projects and programmes relating to base capex are consistent with the-

(a) most recent integrated transmission plan, and an explanation for any material divergence if not, why not; and
(b) **opex proposal**, for the next **regulatory period**;

(2) **overall description of Transpower's aims and objectives with respect to base capex** during the next **regulatory period**;

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

(4) explanation as to the overall deliverability of the proposed **projects** and **programmes** relating to **base capex**; and

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

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**F4 Governance Policies, processes and consultant reports**

(1) schedule listing **Transpower's governance (including policies, processes, strategies and risk assessments)** all **policies or processes** applicable to **base capex** concerning-

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

(b) **base capex programmes**;

(c) asset management;

(d) business planning; and

(e) capital works;

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

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

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**F5 Cost and efficiency**

(1) evidence demonstrating if, and how, **Transpower** has, in relation to **base capex**, during the current **regulatory period**-

(a) pursued, and is pursuing process improvements;

(b) ensured and is seeking to ensure appropriate least-whole-of-life cost and efficient interventions;

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Commented [TP87]: From our submission to draft decisions:

The changes have materially increased requirements and the scope of information provision (in addition to policies and processes, new requirements are 'strategies and risk assessments'). We disagree with the Commission increasing the information requirements in F4(1). The change is made without sufficient justification or evidence to demonstrate how the changes better promote the outcomes sought by 52A. The role of our proposal for 'governance' was to describe key internal procedures that describe how expenditure is governed. We consider Transpower is best placed to decide the appropriate documentation to convey our governance processes.

Commented [TP88]: From our submission to draft decisions:

We retain the view expressed in our additional information in support of our 24 June submission on focus areas for the Capex IM review, to remove this requirement. We were asked to propose any specific information requirements that should be added, amended or removed. We have included in the 2nd column our rationale for our conclusion that the requirement should be removed.

*Because "under the regulatory framework created by the Commission we should be relying on the expenditure incentives to encourage us to search for and reveal efficiencies. The expenditure efficiency arrangements should reinforce an approach where our proposal for the next regulatory period allows for the revealed efficiency i.e. take our efficiency as achieved up to the forecasting base year."*
(c) pursued and is pursuing cost reduction strategies for its projects and programmes;

d) ensured and is seeking to ensure that both internal and external suppliers of goods and services have incentives to perform well and identify cost savings;

(2) description of all efficiency assumptions relied upon in the proposed base capex allowances; and

(3) description of-
   (a) any contingency included in proposed costs; and
   (b) the methodology for calculating such contingencies.

F6 Information on programmes and identified programmes

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

(2) in respect of each identified programme:
   (a) description of the programme, including its aims and objectives;
   (b) cost-benefit economic analyses that support it;
   (c) explanation as to its deliverability, with reference to factors likely to specifically affect that programme;
   (d) description of the methodology used to generate the forecast of its base capex, including, but not limited to-
      (i) the relevant key assumptions and how they were applied;
      (ii) any relevant cost benchmarking undertaken by or for Transpower; and
      (iii) internal historical cost trends for specific cost components relied upon e.g. unit costs; and
      (iii)(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 programme and its effect on the forecast capex;
   (f) list of all relevant documents taken into account in forecasting its base capex, including documents relating to its deliverability, relevant policies and consultant reports;
   (g) explanation of the extent to which its forecast base capex implements the key assumptions, any consultant reports, and policies relating to the
planning of the grid and the forecasting of capital expenditure and operating expenditure for that purpose, including in relation to—

(i) long term grid development;
(ii) grid maintenance; and
(iii) grid operation;

(h) explanation of all material departures from any—
   (i) relevant policies;
   (ii) planning standards; or
   (iii) conclusions and recommendations contained in the consultant reports identified pursuant to paragraph (f);

(i) overview of any significant tradeoffs between operating expenditure, base capex and quality that Transpower considered in its development;

(j) assessment of its impact upon either or both of the—
   (i) quality performance; and
   (ii) serviceability,
   of the assets to which it relates;

(k) description of relevant legally enforceable duties owed by Transpower, whether arising under legislation, at common law or in contract, that have a material impact on an identified programme;

(l) description of any material step change compared to historic costs for the same or a similar type of programme;

(m) explanation of the effect of a step change identified pursuant to paragraph (l) on its forecast base capex, and where not required by the regulatory templates agreed pursuant to clause 2.2.1(1) or specified pursuant to clause 2.2.1(2), schedule of any models used accompanied by explanations of them and how they were relied upon;

(3) in respect of each identified programme forecast to be first commissioned during the next regulatory period—
   (a) description of the system growth project prioritisation approach;
   (a) where options have been considered, provide a summary of the options considered, the analyses undertaken and the reasons for rejecting those that are not proposed to be implemented; and
(b) identify, quantify and justify all contingency sums included in the forecast cost of the programme.

(c) a schedule—

(i) listing all programmes or projects whose forecast base capex includes a contingency amount additional to the forecast cost of that programme;

(ii) describing the rationale for inclusion of each such contingency amount;

(iii) describing the uncertainties each contingency amount accounts for; and

(iv) specifying the methodology for calculating the quantum of each contingency amount; and

(4) in respect of each identified programme with a fixed-end date forecast to be first commissioned in the regulatory period after the next regulatory period, information of the type specified in subclause (1) must be provided in respect of the period ending on the forecast commissioning date

(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 any identified programme that may use outsourced services which may have a material effect on the desired outcome of the programme—

(a) identify the outsourced services;

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

(i) under a discrete contract;

(ii) or 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

(d) 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 capital expenditure; and

(1)/(2) Identify and explain the key risks that have the potential to affect the delivery of the proposed capital expenditure. In relation to procurement, identify any identified programme that uses outsourced services which have a material effect on the desired outcome of that identified programme.

(2) In relation to each identified programme identified pursuant to subclause (1),

(a) identify the outsourced services that have a material effect;

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

(i) under a discrete contract; or

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

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

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

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

F8 **Resourcing and delivery**

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

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

(a) the forecast base capex; and

(b) forecast grid output measures; and

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

F9 **Other capex**

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

**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 (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 allowance**;

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

**F11 Information on proposed grid output measures**

1. lists of all proposed **output measures** that must include the following—
   a. asset performance performance-based measures;
   b. measures of grid performance asset capability, grid output measures; and
   c. asset health grid output measures; and
   d. grid output measures designed to measure the benefit delivered by proposed expenditure not captured by paragraphs (a) to (c) above, that clearly identify those proposed to be revenue-linked grid output measures;

2. lists of grid output measures that may include the following:
(a) asset capability grid output measures; and
(b) any other grid output measures;

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

(3) in respect of each 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 it both during the next regulatory period and beyond it; and
   (c) its alignment with the underlying business processes used to plan and operate the grid;
   (d) all relevant calculations, models and supporting data;

(5) in respect of each grid output measure not linked to revenue-
   (a) the forecast value of the measure at the start and by the end of the 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 regulatory period, a proposed-
      (i) grid output target;
      (ii) grid output incentive rate;
      (iii) cap; and

Commented [TP99]: From our submission to draft decisions:

We consider the Commission has increased the regulatory burden of providing information, by requiring Transpower to provide all models and supporting data relating to all output measures (both revenue and non-revenue linked).

No Part 4 rationale is provided for why the models are needed. We urge the Commission to evaluate its need for information by clarifying how it intends to use all the models.

Propose that provision of models is only relevant to output measures linked to revenue.
(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 grid output targets, caps and collars;

F13 Grid output measures not linked to revenue in respect of each grid output measure not subject to the grid output mechanism-

(a) the forecast quantum of the grid output measure at the start of the regulatory period;

(b) explanation as to how that forecast quantum was determined;

(c) forecast incremental change to its quantum by the end of the regulatory period were no base capex undertaken during the regulatory period;

(d) forecast incremental change to its quantum by the end of the regulatory period were expenditure made in accordance with the proposed base capex allowances; and

(e) models and data used to forecast-

(i) its quantum at the start of the regulatory period; and

Commented [TP100]: Under F12 (c) (ii) we agree that the grid output targets should reflect consumer preferences and thus any consultation responses.
We consider the terms ‘relevant policies’ and ‘key assumptions’ have little value, as other information provided in F12 and F11 should be sufficient to evaluate the appropriateness of the output measure targets and degree of consultation undertaken.
Propose deleting “and relates to relevant policies and key assumptions.”

Commented [TP101]: As per draft decisions for clause F13, this clause F13 needs to be deleted.
(ii) incremental changes to its quantum during and by the end of the regulatory period.
SCHEDULE G  MAJOR CAPEX PROPOSALS

G1 Information required in a major capex proposal

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

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

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

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:

that is a market development scenario variation or MED scenario variation, as the case may be;

(1) in respect of:

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

(b) the rationale for the variations; and

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

(a) each market development scenario variation or MED scenario variation, as the case may be, a description of it;

(b) each market development scenario variation.
G4 Information relating to each investment option

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

1. description of the investment option;

2. net electricity market benefit of each investment option under each demand and generation scenario;

3. in respect of each investment option, quantum of-
   (a) each electricity market benefit or cost element;
   (b) each project cost;
   (c) aggregate electricity market benefit or cost element; and
   (d) aggregated project costs on a P50 basis, used to calculate each net electricity market benefit;

4. methodology used to determine the quantum of all information provided pursuant to subclause (3), including details commensurate with the estimated capital expenditure and complexity of the investment option of any-
   (a) internal and external benchmarking and how the results were applied;
   (b) relevant existing or proposed supply or procurement processes;
(c) modelling tools or techniques; and
(d) key publications and data sources;

(5) key assumptions used to determine the net electricity market benefit of each investment option, including-
(a) discount rate;
(b) calculation period;
(c) cost per megawatt hour used to determine the value of expected unserved energy; and

(6) expected net market benefit of each investment option.

G5 Information relating to proposed investment only

(1) Identification of the investment option that is the proposed investment and, where the proposed investment is part of a proposed major capex project (staged), provide-
(a) a description of all the proposed stages of the major capex project (staged);
(b) reasons for the proposed staging, including the extent to which splitting the project into stages has the potential to reduce the timing, scope or cost uncertainties of the project; and

(a)c the estimated projects costs, planned major capex project outputs and planned timing of each stage;

(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 a P50 estimate;

(d) sensitivity analysis on the probability of lower or higher capex expenditure than the proposed major capex allowance (for example, an estimated probability distribution of capital expenditure incurred as part of the major capex project);

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

Commented [TP102]: The definition of “P50” relates to project costs, not major capex allowances.
Suggest “which must include a P50 cost estimate and estimated probability distribution”

If project costs are not based on symmetrical cost distributions, Transpower should be able to propose a major capex allowance that is not based on a P50 estimate.

Commented [TP103]: If P50 project costs are provided and supported, then this is redundant. “capex expenditure” should be “capital expenditure”
Unclear on sensitivity analysis purpose, propose “an estimated probability distribution of capital expenditure incurred as part of the major capex project” (the major capex is not yet spent, so cannot be incurred).
(e)(f) any proposed maximum recoverable costs;

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

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

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

(i)(j) 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)(k) proposed approval expiry date and rationale for it;

(3) detailed description of the rationale for seeking approval of the proposed investment;

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

(5) detailed commentary as to how consistent with the most recent integrated transmission plan, and if not, why not the-

(a) the proposed investment is; or

(a)(b) entire major capex project (staged) is, where the proposed investment relates to a major capex project (staged) is consistent with the most recent integrated transmission plan, and if not, why not;

(b)(c) identification of anything associated with the proposed investment falling under any of clauses D5(1)(a) to D5(1)(g) that did not meet the definition of expected market benefit or cost element only by virtue of its being unlikely to affect the net electricity market benefit to an appreciable degree;

(c)(d) description of considerations, assumptions and calculations used to determine that something falling under any of clauses D5(1)(a) to D5(1)(g) did not meet the definition of expected market benefit or cost element by virtue of its being unlikely to affect the net electricity market benefit to an appreciable degree;

(d)(e) outcome of sensitivity analysis;

(e)(f) description of the methodology applied in undertaking sensitivity analysis;

(f)(g) explanation as to how robust to sensitivity analysis the-
(a) proposed investment is to sensitivity analysis; or

(b) entire major capex project (staged) is, where the proposed investment relates to a major capex project (staged);

(9) (11) reasons for any selection of a-

(a) discount rate other than 7%; and

(b) calculation period other than 20 years;

(c) cost per megawatt hour determined using paragraph (b) of the definition of value of expected unserved energy;

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

(a) proposed investment is; or

(b) entire major capex project (staged) is, where the proposed investment relates to a major capex project (staged);

(10) (13) rationale for determining that the proposed investment, or the entire major capex project (staged) where the proposed investment relates to a major capex project (staged), 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 each investment option proposed investment contained in the major capex proposal-

(1) specification of approved major capex project outputs that are proposed;

(2) quantum of each approved major capex project output that is proposed;

(3) rationale for those approved major capex project outputs that are proposed including-

(a) description of key factors and key assumptions relevant to their determination including the uncertainty associated with each such factor or assumption; and

(b) explanation of the extent to which the quantum of each proposed major capex project output reflects:

(i) the assets to be commissioned;

Commented [TP107]: Request delete words major capex, and treat each stage as a project of the whole major capex project, to ensure that an individual stage does not have to cost more than $20m.
(ii) the forecast changes to the functional capability of the grid;

(iii) the quantum of forecast electricity market benefit or cost elements directly related to the supply of electricity transmission services; and

(iv) in respect of a non-transmission solution, any service provided by a third party;

(4) explanation of the relationship between the proposed P50 major capex allowance and the quantum of each approved major capex project output that is proposed including the sensitivity of the quantum of each approved major capex project output that is proposed to changes in the major capex allowance P50, including commentary in terms of increases or decrease in the scope of the project;

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

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

G7 Information on consultation

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

(a) a list of the relevant consultation steps and confirmation by Transpower that each occurred;

(b) a list of respondents to the consultation;

(c) a description of all issues raised by interested persons in response to Transpower’s intended major capex proposal;

(d) a summary of the arguments raised in respect of each issue to which paragraph (c) applies; and

(e) in respect of the issues to which paragraph (c) applies, an explanation as to whether the major capex proposal accommodates the arguments referred to in paragraph (d); and

(i) if so, how; and

(ii) if not, why not.
G8 Information on non-transmission solutions

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

(a) summary of the process followed to identify and assess non-transmission solutions;
(b) description of non-transmission solutions suitable to meet the relevant investment need identified either by Transpower or by 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 3.3.3.
SCHEDULE H  INFORMATION REQUIREMENTS FOR AMENDMENT AND SUNK COSTS APPLICATIONS FOR MAJOR CAPEX PROJECTS

DIVISION 1  AMENDMENT TO MAJOR CAPEX ALLOWANCE

H1—Information to be provided

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

H2—Project identification and specifications

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

H3—Amendment sought

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

H4—Progress of project

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

H5 — Current and forecast expenditure

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

H6 — Reasons for making the application

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

AMENDMENTS TO MAXIMUM RECOVERABLE COSTS OR RECOVERY SCHEME

H2H1 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.

H8H2 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.

H9H3 Amendments sought

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

H10H4 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.

Current and forecast expenditure

(1) operating expenditure incurred, in aggregate;

(2) operating expenditure incremental to the operating expenditure allowance specified in the IPP determination proposed to be classified as recoverable costs (in aggregate and broken down by type);

(3) capital costs incurred proposed to be classified as recoverable costs (in aggregate and broken down by type);

(4) total costs incurred proposed to be classified as recoverable costs;

(5) forecast remaining costs proposed to be classified as recoverable costs;

(6) difference between proposed amendment to maximum recoverable costs and maximum recoverable costs.

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;
description of the implications of the proposed amendment on the relevant approved major capex project outputs;

where an application for amendment to the approved major capex project outputs is being made concurrently, explanation as to how the proposed amendments relate to each other in light of the information to which clause (2) applies;

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

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

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.

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

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

Amendment sought

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

Progress of project

   description of progress made on the 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;

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.
Reasons for making the application

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

(2) description and, where relevant, quantum of any current key assumptions different to those relied upon in applying the investment test in the major capex proposal;

(3) description of the outcome of applying the investment test as it was applied in the major capex proposal modified by the proposed amendments and key assumptions described in subclause (2), including all relevant calculations and justifications for any exercises of judgment;

(4) explanation as to why making the proposed amendment would promote the long-term benefit of consumers taking account of:
   (a) the outcome referred to in subclause (3);
   (b) any costs that are sunk;
   (c) the context in which the major capex proposal was made; and
   (d) the context in which any subsequent amendments to the approval were made by the Commission;

(5) where no application for amendment to the major capex allowance or maximum recoverable costs, as the case may be, 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

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

DIVISION 4 DIVISION 3 AMENDMENT TO APPROVAL EXPIRY DATE

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.
**Project identification and specifications**

Identification of relevant major capex project and-

(a) its approval expiry date; and

(b) its major capex allowance or maximum recoverable costs;

**Amendment sought**

Proposed new approval expiry date;

**Progress of project**

1. Where a major capex allowance is applicable, the commissioning date assumption;

2. Where maximum recoverable costs are applicable, the completion date assumption; and

3. Description of progress made on the major capex project, including details of-

(a) planning processes undertaken;

(b) details of resource management consents, other regulatory consents, and property rights and access rights obtained;

(c) details of resource management consents, other regulatory consents, and property rights and access rights still in progress;

(d) details of other consent, property or access negotiations in progress;

(e) any request for information or request for services issued to third parties;

(f) construction and labour contracts and arrangements made;

(g) construction completed; and

(h) testing undertaken;

**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.
Reasons for making the application

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

(2) description of the likely implications of the amendment, including the effect over the calculation period on other approved major capex projects where, in the case of a major capex project that is a-
   (a) transmission investment, the last asset to be delivered by the project has not yet been commissioned; or
   (b) non-transmission solution, has not yet achieved completion.

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

(4) explanation as to why making the proposed amendment would promote the long-term benefit of consumers, taking into account:
   (a) any costs that are sunk;
   (b) the context in which the major capex proposal was made; and
   (c) the context in which any subsequent amendments to the approval were made by the Commission.

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.

Project identification and specifications

identification of relevant major capex project;
Sunk costs approvals sought

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

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 capital expenditure and the amount in clause H21, including, where applicable, documents and correspondence from manufacturers, suppliers, contractors and other relevant parties.

Progress of project

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

Reasons for making the application

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

(2) explanation as to why making the major capex sunk costs adjustment would promote the long-term benefit of consumers;
SCHEDULE I  MAJOR CAPEX CONSULTATION REQUIREMENTS

cl. 8.1.3(1), 8.1.3(2)

DIVISION 1  CONSULTATION ON OPTIONS

I1  What Transpower must consult on

(1) Transpower must, except where Commission is satisfied that the inclusion of any matter outlined below would be unreasonable in the circumstances as provided for by clause 8.1.3(2)(b), consult on-

(a) its investment need;
(b) each demand and generation market development scenario variation or MED scenario variation, as the case may be;
(c) key assumptions;
(d) a long list of options to meet each investment need; and
(e) a short list of investment options to meet each investment need.

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

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

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 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; and
   (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 demand and generation scenarios it intends using for the purpose of the investment test and the weightings of those scenarios; and
   (b) provide information on the relevant key assumptions, including-
      (i) cost of expected unserved energy per megawatt hour used to calculate the cost of involuntary demand curtailment borne by end users of electricity; and
      (ii) any other variables material to application of the investment test.

(2) In respect of each investment option on its short list, Transpower must, as a minimum-
   (a) describe its features by reference to-
      (i) the definition of investment option; and
(ii) at least its type, location, and anticipated duration of the works required.

(b) address any submissions raised in respect of each option described during the previous consultation;

(c) describe the likely electricity market benefit or cost elements and project costs;

(d) specify which electricity market benefit or cost elements are treated as unquantified;

(e) specify an estimate of the quantum of each likely electricity market benefit or cost element and project cost that is quantified; and

(f) specify the methodology or methodologies used to quantify electricity market benefit or cost elements and project costs;

(3) In respect of the investment options on its short list, Transpower must-

(a) demonstrate that they are appropriate in number and technology with respect to the investment need in question;

(b) describe the outcome of a preliminary application of the investment test based on the information required to be provided by subclauses (1) and (2);

(c) where the option Transpower considers satisfies the investment test is not the option with the highest net electricity market benefit, explain with reasons how the option satisfying the investment test was selected; and

(d) in respect of its application of the investment test-

(i) describe the nature and application of the qualitative assessment used to take into account the contribution of any unquantified electricity market benefit or cost elements;

(ii) explain the approach taken to sensitivity analysis; and

(iii) specify any non-standard values or amounts, as the case may be, of the calculation period, discount rate or value of expected unserved energy used, and why those non-standard values or amounts are appropriate.

14 Key assumptions

For the purpose of clause 13, the key assumptions consulted upon must include the following things:
(a) nature of the qualitative assessment used to take into account the contribution of associated unquantified electricity market benefit or cost elements;
(b) cost of expected unserved energy per megawatt hour used to calculate the cost of involuntary demand curtailment borne by end users of electricity;
(c) discount rate used; and
(d) calculation period used.

DIVISION 2 NON-TRANSMISSION SOLUTIONS

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

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

(2) The approach must enable the-
(a) reasonable information needs of interested persons, including potential proponents of non-transmission solutions to be met; and
(b) views of interested persons, including potential proponents of non-transmission solutions to be expressed and taken into account.

(3) As a minimum, the approach must include the requirements that-
(a) when consulting on an investment need, Transpower must in addition to the consultation requirements in clause 12, invite interested persons to provide views or information on or relevant to possible non-transmission solutions to meet that need;
   (i) provide sufficient information to enable interested persons, including potential proponents of non-transmission solutions to propose non-transmission solutions; and
   (ii) invite interested persons, including potential proponents of non-transmission solutions to propose non-transmission solutions;
(b) Transpower need not seek proposals for non-transmission solutions from interested persons prior to the initial consultations on when developing its long list of options to consult on, but Transpower 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 Commented [TP109]: We suggest this 'invitation' approach is more efficient for stakeholders as it provides an opportunity for them to signal interest and capability, but not have to undertake a full response as a proposal. We suggest retaining the use of the existing 'request for information' approach to test the market for NTS.
Commented [TP110]: We consider specifying what we want (which at the point of our investigation may be difficult to specify accurately) could require stakeholders to respond to a "request for proposal", a more significant and costly undertaking for stakeholders, and potentially risky sunk cost if our specification is not accurate.
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 options, Transpower must in addition to the consultation requirements in clause I2-

(i) provide sufficient information to enable interested persons, including potential proponents of non-transmission solutions to propose non-transmission solutions; and

(ii) invite interested persons, including potential proponents of non-transmission solutions to propose non-transmission solutions; and

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

(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) shall be as set out in subclauses I1 to I5.

(2) The consultation requirements for all subsequent stages shall include, in relation to the remaining part of the major capex project (staged) consultation on the following matters:

(a) updates on the investment need;

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

(c) updates in key assumptions;

(d) short list of investment options to meet each investment need;

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

Commented [TP111]: Suggest ‘update on options’, and suggest inserting ‘or manage’ after ‘meet’ to account for expanded role of NTS.
(f) the investment test if there is material difference between the method or parameters of the investment test between stage one and the subsequent stage; and

(g) long list of investment options if required by the Commission.

(3) The extent of consultation by Transpower for the purposes of l6(2) shall be commensurate with the materiality of changes identified in l6(2) but shall contain sufficient information to enable interested and affected parties to engage on the remaining part of the major capex project (staged).

Commented [TP112]: Suggest remove clause, because of suggestion at (d).