Revised draft IPP and three section 53ZD notices

Transpower appreciates the opportunity to respond the revised draft IPP and the accompanying three section 53ZD notices that give effect to final decisions for Regulatory Control Period 3 (RCP3). We note that some elements of the final decision introduce new detail on policy, so our review and commentary is not solely confined to technical drafting points.

In 2018 we published *Te Mauri Hiko – Energy Futures*, highlighting opportunities and challenges of decarbonising the energy sector and steering the conversation towards a sustainable energy future for New Zealand. Changes to levels of renewable generation and potential electrification of transportation and process heat will bring about challenges for when, where, and what demand or generation will arise. Our RCP3 proposal later in 2018 reflected the importance of managing transmission costs while sustaining capability in the National Grid to support future opportunities for New Zealand.

The Commission’s decisions for our RCP3 revenue, service quality and business activities create the platform for our navigation through the energy transition through RCP3 and subsequent regulatory periods. Our comments in this submission have reflected the scheme the Commerce Act 1986, it’s broader provisions, and the Section 1A and Part 4 purpose. While we support the Commission’s focus on cost estimation, asset health modelling development, and effective customer consultation, we consider that more flexibility in the reporting regimes will better achieve the objectives of Part 4 by acknowledging and providing for the changing energy landscape.

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1 Refer Sections 1A and 52A Commerce Act 1986. The objectives are for the long-term benefit of consumers, via incentives to innovate and invest, delivering service quality that meets consumer demands, sharing efficiency gains, and expectation of normal returns (précised).
In this submission we provide feedback on the:

- **Technical drafting of the revised draft IPP.** We recognise the Commission has accepted a number of our drafting points to the determination from June 2019, which has, in our view, improved the structure, clarity, readability and some policy matters of the IPP. Appendix 1 provides our mark-up of our feedback on the revised technical drafting. We highlight our main points below.

- **Draft section 53ZD information gathering notices.** We have previously stated our broad agreement of the use of a monitoring and investigation regime to provide information to build the Commission’s confidence towards its RCP4 evaluation. However, we are concerned by the heavy administrative burden and regulatory impost from the proposed certifications, including the importation of a criminal standard for the provision of information, and the level of prescription about the information to be supplied.

### Technical drafting for the revised draft IPP

**Normalisation policy** (clause 20). We appreciate the development in the IPP of the normalisation policy. We note that our application to the Commission for it to determine whether a normalisation event has occurred (refer clause 20.3), currently no later than 105 working days, needs to be earlier to meet the timing for the annual compliance statement. We suggest 60 days.

**Performance measures** (clauses 11 – 19). We note and support the changes to the relative weighting of the incentive rates for our grid performance measures GP1 and GP2\(^2\) (refer table 4.1). We also support that the non-revenue linked quality standards have been revised towards asset classes for which the Verifier has concluded we have a good level of asset health modelling maturity.\(^3\)

**Schedules A - E.** In general, some of the references in the Schedules should be checked for accurate cross-referencing. For Schedules C2 and C4 the numbers in C2 should be in C4 and vice versa.

Lastly, we consider the omission of the three areas of costs estimation, customer consultation and asset health initiatives from the two regulatory instruments (Individual Price-Quality Path and Information Disclosure regulation) may make it difficult for interested parties to understand our regulation and information provision. We suggest the Commission will need to ensure that an interested party is readily able to get the complete picture.

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\(^2\) GP1 = number of unplanned interruptions. GP2 = duration of unplanned interruptions.

\(^3\) Verifier’s report circuit breakers page 228 and power transformers refer page 124 table 29.
Draft section 53ZD information gathering notices

Fundamentally, we consider the s53ZD regime for information relating to asset health, cost estimation, and stakeholder engagement to be inconsistent with the objectives of delivering long-term benefits to consumers in the electricity market.

If the proposed s53ZD notices are to achieve the Commission’s goal of providing “confidence” in the evaluation process for RCP4, then we consider that two main issues need to be resolved:

1. Permitting alternative approaches to ensure we can deliver meaningful information.
   Our review of the individual notices has considered whether the information gathered from us will be meaningful and meet the Commission’s objective of giving confidence to its evaluation of our RCP4 proposal. Our conclusion is that the policy detail in the notices has not been sufficiently tested for implementation issues, including practicality and cost-effectiveness. The highly prescriptive nature of the notices, particularly the ‘Asset health and risk modelling information’ notice, creates a material risk of non-compliance, which, with the imposition of criminal sanctions, places the burden for the simple provision of information too high and would act contrary to the Part 4 objectives.

   We have suggested redrafts for the clauses in each notice for extension, to be expanded to allow Transpower to apply for an exemption as well as an extension. This would be consistent with the approach for information to be disclosed under the revised draft IPP determination (clause 35). The approach will allow the notice requirements to be flexible if it transpires that certain information cannot reasonably be provided or there is better information to meet the Commission’s purpose than specified in the notice.

   Alternatively, each notice could provide that compliance is achieved on best or reasonable endeavours basis, to account for any practical limitations on our ability to provide the specified information in the specified time frames.

2. Certification.
   As already noted, we support the ability for the Commission to gather the information it considers necessary and desirable for operating Transpower’s regulatory regime. However, we consider that the s53ZD notices should not create undue administrative burden or compliance risk for Transpower (and its directors and officers). We consider that director (or CEO) certification requirements are not appropriate for the information gathering notices under s53ZD.

   We comment on the three notices below.

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The Commission describes in each of the notices that the purpose for the information is “to give us confidence in the evaluation process for RCP4” (draft s53ZD clause 3 asset health and risk modelling information), “assist us in our cost estimation considerations for the regulatory control period following RCP3” (draft s53ZD clause 3 cost estimation information) and “improve our understanding of Transpower’s customer engagement during RCP3 and give us confidence in the evaluation process for RCP4” (s53ZD clause 4 customer consultation information).
s53ZD notice Asset health and risk modelling information

We support the Commission’s focus on asset health and agree with its expectation that “where asset health models are practical and useful, they should be developed and implemented” (L11 page 303 reasons paper).

However, the final decision for asset health and risk modelling information introduces material new and very detailed policy, which was not included in the Commission’s draft IPP determination. The short consultation window on the revised draft determination is our first and only opportunity to consider the detailed policy contained in the draft notice or provide our perspectives on whether the information requested will meet the Commission’s objective in practice. In short, we are concerned by the level of direction conveyed by the draft section 53ZD information gathering notice and have had limited opportunity to review and understand the operational implications.

Although the Verifier’s report indicated areas of development in the asset classes, some of which are identified in the notice, we note the Verifier does not recommend specific development steps. Rather, it indicates its view of potential scope for improvement. In our view, the draft s53ZD notice interposes the Commission’s own view of what it thinks we should be developing in a manner the Verifier did not.

The resulting prescriptive detail requires us to take a particular, pre-determined approach to developing asset health modelling. This at best limits (and may remove) our ability to take ownership for evaluating the possibilities and challenges to determine the approach that best takes account of GEIP, considers relevant precedent and learning over time and is framed by the underlying objective of long-term benefits to consumers.

Therefore, we do not support the information requirements as proposed. For the asset classes indicated by Schedule A 1.1 for development, our view is that all prescription on how to develop the modelling and provide update information should be removed.

If the prescription remains, then we propose alternative drafting (identified in Table 1 below and in the notice) to reduce the risk that the development is without precedent, inconsistent with GEIP and contrary to the long-term benefit of consumers.

<table>
<thead>
<tr>
<th>S53ZD notice Schedule A reference</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1.1 the asset classes for which Transpower will further develop asset health models...</td>
<td>We suggest the prescription for each area (the detail after the colons) is removed. If prescription must remain then please adopt our proposed drafting outlined (below and in our mark up to the notice).</td>
</tr>
</tbody>
</table>

5 schedule A1: HVDC and dynamic reactive support assets, static reactive support assets, secondary assets including protection and substation management systems

6 Verifier report “potential scope for improvement”: HVDC assets page 200; secondary assets including protection page 238; substations systems page 247.
### A 1.1.1 HVDC and dynamic reactive support assets

The HVDC system is made up of different components, many of which we can build models for by leveraging off similar assets on our HVAC grid, and what others are doing globally. With other, specialist HVDC assets due to the limited number of these assets around the world, we rely on manufacturer advice.

Power stations predominately have models based on thermal cycles and or rotating plant, so we prefer reference to “similar facilities” instead.

If the prescription remains, we propose re-drafting as follows:

**A1.1.1** HVDC and dynamic reactive support assets:

*Transpower* to develop bespoke HVDC and dynamic reactive support asset health models on applicable systems that make up these assets, which are based on asset criticality and condition models typically used in similar facilities;

### A1.1.3 Secondary assets – SA protection, battery systems and revenue meters

If the prescription remains, we propose re-drafting as follows:

**A1.1.3** Secondary assets – SA Protection, Battery Systems and Revenue Meters: *Transpower* to continue to implement asset life-extension modelling by further development of asset-centric health and criticality models;

### A1.1.4 secondary assets – SA substation management systems

Substation management systems (SMS) operate in a niche area where the realms of ICT and power systems engineering converge. These systems are the mission critical interface between Transpower’s primary and secondary assets and the IT control systems that operate the power system as a whole. SMS are subject to the evolving requirements of both realms and therefore controlling mortality rates is typically secondary to managing obsolescence drivers such as cyber security, functionality, compatibility, and supportability. Applying a simple asset health approach to SMS lifecycle management would result in a regime that increases whole of system costs and rapidly escalates risk.

If prescription remains, we propose re-drafting as follows:

**A1.1.4** Secondary assets – SA Substation Management Systems: *Transpower* will actively track the failure rates of SMS assets and will replace devices on an age-based approach, balanced against the context of the wider system requirements;
<table>
<thead>
<tr>
<th>A1.3 for each of the models and frameworks...the date at which Transpower expects each...to be able to be used to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause A1.3 requires us to specify dates to achieve specific outcomes. Please remove specificity of ‘date’ and replace with the term ‘timeframe’ to ensure we can meet the information needs with more realistic assessments of timing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A2, A3</th>
</tr>
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<tbody>
<tr>
<td>[A2] We have already submitted on the draft IPP in June (refer footnote 1) that any expert opinion should be in relation to our asset modelling and not asset management per se. The context against asset management is potentially large scope and a distraction from the task of understanding progress of our asset health initiatives journey.</td>
</tr>
<tr>
<td>[A3] The expert must implicitly endorse the roadmap but its assessment against GEIP could raise the fact a development approach is not consistent with GEIP. The terms of reference (under clause 10) for the opinion should allow for a conclusion about departures from the road-map if doing so better meets GEIP.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A4 Annual update</th>
</tr>
</thead>
<tbody>
<tr>
<td>We understand that an annual update on progress could be useful to stakeholders. We propose that for our ownership of the update information, the form and content of the update should be at our discretion.</td>
</tr>
</tbody>
</table>

### s53ZD notice Customer consultation information

While the Commission signalled the information requirement for customer engagement in the 2017/18 Capex IM review, it was initially proposed as an Information Disclosure requirement.\(^7\) We repeat our concerns that the importation of a criminal standard for the provision of information to the Commission that is, in part, dependent on the receipt of accurate and reliable information from the customers themselves is, we consider, inconsistent with the purpose of the Act.

The term **customer** is not defined; the proposed definition refers to the IPP which refers to the Transpower IM, which has no definition. The term **customer** should be defined as already used for Information Disclosure for consistent policy.\(^8\)

We also note that the draft notice expands on IPP clause 25.1.5 CS1 (post-interruption reporting). For clarity, all interruption reporting should refer only to unplanned interruptions.

### s53ZD notice Cost estimation information

We understand the intent of this draft notice is to build the Commission’s confidence in our cost estimation. It seems likely we will need to develop a methodology for establishing the line of sight between proposal costs (where these can be established, noting that a base capex proposal is not simply a collection of specific projects) and delivery business case cost, and actual cost. Agreement on such methodology would be needed if the data collection and

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\(^7\) Refer [Capex IM review decisions page 89](#)

\(^8\) **customer** means any generator, distribution business, consumer, or other entity in New Zealand that is connected, or applies to be connected, to the **grid**.
collation task is more complex than the drafting in the notice implies. We are keen to avoid a repeat of the recent assessment process for the IRIS baseline adjustment term (IBAT) where methodological differences created outcomes for Transpower and the Commission that were very different.

Finally, as this third regulatory period is the onramp towards the necessary low emissions future, our readiness for enabling connections and being able to deliver efficient service rests on the Commission getting the regulatory settings, incentives and development focus right.

We trust you find this submission helpful and we are available to respond to any queries you have on this submission.

Yours sincerely

David Knight

Acting Chief Executive

Attachments
1. Revised draft IPP mark up
2. s53ZD notice: Asset health and risk modelling
3. s53ZD Customer consultation
4. s53ZD Cost estimation
[REVISED DRAFT] Transpower Individual Price-Quality Path Determination 2020

[2019] NZCC [XX]

The Commission: Sue Begg
Dr Stephen Gale
Elisabeth Welson
John Crawford

Date of decision: [XX] 2019

Commerce Commission
Wellington, New Zealand
## Document version history

<table>
<thead>
<tr>
<th>Publication date</th>
<th>Decision number</th>
<th>Determination name</th>
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Pursuant to Part 4 of the Commerce Act 1986, the Commission makes the following determination:

**Part 1: General provisions**

1. **Title**
   
   1.1 This determination is the Transpower Individual Price-Quality Path Determination 2020.

2. **Commencement**
   
   2.1 This determination takes effect on 1 April 2020.

3. **Application**
   
   3.1 This determination applies to Transpower in relation to the supply of electricity lines services for RCP3.

4. **Interpretation**
   
   4.1 Unless the context otherwise requires—
   
   4.1.1 terms appearing in bold type (except for headings) in this determination are defined terms;
   
   4.1.2 terms used in this determination that are defined in the IMs, but not in this determination, have the meaning given in the IMs;
   
   4.1.3 terms used in this determination that are defined in the Act, but not in this determination, or in the IMs, have the meaning given in the Act;
   
   4.1.4 any reference to a period of time is interpreted in accordance with section 35 of the Interpretation Act 1999;
   
   4.1.5 for the avoidance of doubt, references to terms from legislation in this determination have the meaning given in the applicable legislation at the time they are applied;
   
   4.1.6 financial items must be measured and disclosed in accordance with GAAP at the time it is applied, unless otherwise required by this determination or the IMs;
   
   4.1.7 non-financial items must be measured and disclosed in accordance with standard industry practice unless otherwise required in this determination, or the IMs;
   
   4.1.8 an obligation to do something is deemed to include an obligation to cause that thing to be done; and
   
   4.1.9 a word which denotes the singular also denotes the plural and vice versa.
4.2 If there is any inconsistency between the main body of this determination and any attachment or schedule to this determination, the main body of this determination prevails.

5. Individual price-quality path and information disclosures

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

5.1.1 the price path in Part 3;

5.1.2 the quality standards in clauses 14.1-14.4, 16.1-16.4, 17.1, 18.1 and 21.1; and

5.1.3 the grid output measures in clause 11.

5.2 Transpower must comply with the requirements to provide compliance statements and information disclosures in Part 5.

6. Applicable input methodologies

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

6.1.1 the Transpower IM; and

6.1.2 the Capex IM.

Part 2: Defined terms

7. In this determination, unless the context otherwise requires:

A

Act means the Commerce Act 1986;

actual opex has the meaning given in the Transpower IM;

actual transmission revenue means the revenue received by Transpower in a pricing year for electricity transmission services;

AHI means Transpower’s asset health assessment for the relative health of an asset in the range between 1 and 10, where an index of 1 denotes best condition and an index of 10 denotes worst condition;

annual compliance statement means a written statement made by Transpower under clause 23 and associated information;
asset health measure means the percentage of assets in an asset health measure asset class with an AHI of 8 or more;

asset health measure asset class means an asset class that is subject to the asset health quality standards and is one of the following:

(a) power transformers;
(b) outdoor circuit breakers;

asset performance measure has the meaning given in the Capex IM and, for the purposes of this determination:

(a) the revenue-linked grid output measures specified in clause 11.3; and
(b) the non-revenue linked grid output measures described in clauses 25.1.2 to 25.1.4.

assurance auditor means a person who:

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

(b) complies with Professional and Ethical Standard 1 (PES 1) issued by the New Zealand Auditing and Assurance Standards Board of the External Reporting Board in December 2018, under s 12(b) of the Financial Reporting Act 2013; and

(c) for the avoidance of doubt:

(i) has no input into either Transpower’s proposed updated forecast MAR and forecast SMAR calculations for a pricing year of RCP3 or an annual compliance statement for a disclosure year of RCP3 (other than in relation to independent assurance reports); and

(ii) is not associated with or directed by any person who has provided any such input;
B

base capex has the meaning given in the Capex IM;

base capex allowance has the meaning given in the Capex IM;

base capex expenditure adjustment has the meaning given in the Capex IM;

base capex incentive rates means the base capex low incentive rate and base capex standard incentive rate;

base capex low incentive rate has the meaning given in the Capex IM;

base capex programme has the meaning given in the Capex IM;

base capex project has the meaning given in the Capex IM;

base capex standard incentive rate has the meaning given in the Capex IM;

cap has the meaning given in the Capex IM and, for the purposes of this determination, values are specified in Tables 4.1 and 4.2;

Capex IM means the Transpower Capital Expenditure Input Methodology Determination [2012] NZCC 2, including, for the avoidance of doubt, any amendment applicable to RCP3;

capital expenditure or capex has the meaning given in the Capex IM;

catastrophic event has the meaning specified in clause 3.7.1 of the Transpower IM;

civil commotion means riots or similar civil disturbance;

code has the meaning given in the Transpower IM;

collar has the meaning given in the Capex IM and, for the purposes of this determination, values are specified in Tables 4.1 and 4.2;

Commission has the meaning given in the Act;

commissioned has the meaning given in the Transpower IM;
commodity instrument that is not an effective hedge means an instrument acquired by or entered into by Transpower in accordance with its policy on capital expenditure hedging in respect of an exposure to commodity prices, and the instrument does not qualify for hedge accounting in accordance with GAAP at the date of being entered into or acquired and that results in a gain or loss being incorporated into its Statement of Comprehensive Income or equivalent audited statement of income and expenses for financial accounting purposes;

contamination means radioactive contamination, toxic contamination, dangerous biological contamination or chemical contamination;

corporate tax rate has the meaning given in the Transpower IM;

CPI has the meaning given in the Capex IM;

customer has the meaning given in the Transpower IM;

customer service measure means a reporting measure for disclosure of the timeliness of communications and information provided to affected customers after an interruption event;

D

depreciation has the meaning given in the Transpower IM;

director has the meaning given in the Capex IM;

disclosure year has the meaning given in the Transpower IM and, in relation to a pricing year, is the year commencing 1 July immediately following the start of that pricing year;

disposed asset has the meaning given in the Transpower IM;

Commented [A1]: “Customer” is not defined in the Transpower IM (or Capex IM). We suggest the definition of “customer” in the Transpower Information Disclosure Determination 2014: customer means any generator, distribution business, consumer, or other entity in New Zealand that is connected, or applies to be connected, to the grid.
duration means the elapsed time of an unplanned interruption (in minutes, rounded to the nearest whole minute) from the start of that unplanned interruption until the earlier of:
(a) restoration; or
(b) seven days after that unplanned interruption commenced;

E
Electricity Authority has the meaning given in the Transpower IM;
electricity transmission services has the meaning given in the Capex IM;
electricity lines services has the meaning given in section 54C of the Act;
EV account has the meaning given in the Transpower IM;
EV account entry means, for a disclosure year, a memorandum entry to record for that disclosure year:
(a) an ex-post economic gain or loss;
(b) an after-tax gain or loss on capital expenditure commitments;
(c) an after-tax economic gain or loss calculated for a base capex expenditure adjustment, grid output adjustment, or major capex expenditure and output adjustment;
(d) an after-tax economic gain or loss calculated for a major capex sunk costs adjustment;
(e) an ex-post economic gain or loss calculated in accordance with clause 31.1.3(a); or
(f) an after-tax gain or loss calculated in accordance with clauses 31.1.3(b) and 31.1.3(c);
ex-post economic gain or loss means, for a disclosure year, the after tax difference (expressed as a positive or negative amount) between the capital charge and the net operating profit/(loss) after tax for that disclosure year, as calculated in accordance with clause 29.1;

F

forecast CPI has the meaning given in the Capex IM;

forecast EV adjustment has the meaning given in the Transpower IM and, where the Commission reconsiders and amends Transpower’s IPP in accordance with clause 3.7.5(3) of the Transpower IM, the amount calculated for each pricing year in accordance with clauses 32.2 and 32.3 and Schedule D, Formula I (Forecast EV adjustment);

forecast FX rate has the meaning given in the Capex IM;

forecast MAR has the meaning given in the Transpower IM and, for each pricing year, is:

(a) the amount set out in Column 8 in Schedule A; or

(b) where the Commission reconsiders and amends Transpower’s IPP in accordance with the Transpower IM, as calculated in accordance with clause 30.1 and Schedule D;

forecast opex has the meaning given in the Transpower IM;

forecast SMAR has the meaning given in the Transpower IM and, for each pricing year, is:

(a) the amount set out in Column 9 in Schedule A; or

(b) where the Commission reconsiders and amends Transpower’s IPP in accordance with the Transpower IM, as calculated in accordance with clauses 8.3 and 30.3;

found asset has the meaning given in the Transpower IM;
GAAP has the meaning given in the Transpower IM;

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

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

(b) commodity hedge instruments;

good electricity industry practice has the meaning given in Part 1 of the code;

grid has the meaning given in the Capex IM;

grid output has the meaning given in the Capex IM;

grid output adjustment has the meaning given in the Capex IM;

grid output incentive rate has the meaning given in the Capex IM and, for the purposes of this determination, the rates for revenue-linked grid output measures are specified in Tables 4.1 and 4.2;

grid output measure has the meaning given in the Capex IM;

grid output target has the meaning given in the Capex IM and, for the purposes of this determination, the targets for revenue-linked grid output measures are specified in Tables 4.1 and 4.2;

HVAC means high voltage alternating current;

HVAC transmission revenue means revenue (net of rebates) received by Transpower from customers in respect of the use by Transpower of Transpower’s HVAC transmission system for the purpose of providing electricity transmission services to customers;

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

HVDC transmission revenue means revenue (net of rebates) received by Transpower from customers in respect of the use by Transpower of Transpower’s HVDC transmission system for the purpose of providing electricity transmission services to customers;

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

ID determination has the meaning given in the Transpower IM;

Incremental rolling incentive scheme (or IRIS) means the incentive scheme specified in Part 3, subpart 6 of the Transpower IM;

independent assurance report means a report issued by an assurance auditor on an annual compliance statement in accordance with clause 34;

instrument that ceases to be an effective hedge means a financial instrument entered into or acquired by Transpower in accordance with its policy on capital expenditure hedging that qualifies as an effective hedge at the date of entering into or acquiring the instrument, but that ceases during the disclosure year to qualify for hedge accounting in accordance with GAAP, and such ceasing to qualify results in a gain or loss being incorporated into its Statement of Comprehensive Income or equivalent audited statement of income and expenses for financial accounting purposes;

interruption means the cessation of conveyance of electricity between grid assets owned by Transpower to the assets owned or operated by a customer at a point of service to the grid;

Commented [A3]: It would be more accurate if this read: ...between grid assets owned by Transpower and the assets...
IPP revenue growth rate

means the maximum allowable annual percentage growth in forecast SMAR for each pricing year as set out in clause 8.4;

large buildup in EV account balance

has the meaning given in clause 3.7.3A of the Transpower IM;

listed project

has the meaning given in the Capex IM;

lost asset

has the meaning given in the Transpower IM;

low incentive rate base capex allowance

has the meaning given in the Capex IM;

major capex

has the meaning given in the Capex IM;

major capex expenditure and output adjustment

has the meaning given in the Capex IM;

major capex incentive rate

has the meaning given in the Capex IM;

major capex project

has the meaning given in the Capex IM;

major capex proposal

has the meaning given in the Capex IM;

major capex sunk costs adjustment

has the meaning given in the Capex IM;

measure of grid performance

has the meaning given in the Capex IM and, for the purposes of this determination, the measures for revenue-linked grid output measures are specified in clause 11;

momentary interruption

means an interruption that is not planned, which has a duration of less than one minute;
Natural disaster means an event caused by forces beyond human control, including without limitation:

(a) earthquakes;
(b) landslips;
(c) floods;
(d) severe weather events, including storms, wind and rain;
(e) tsunamis; and
(f) volcanic and hydrothermal activity;

New investment contract has the meaning given in the Transpower IM;

Normalisation event has the meaning specified in clause 20.2;

Opening RAB value has the meaning given in the Transpower IM;

Operating cost has the meaning given in the Transpower IM;

Operating expenditure has the meaning given in the Transpower IM;

Opex allowance means, for each disclosure year, the amount of operating expenditure specified by the Commission for the purposes of:

(a) calculating the forecast MAR; or

(b) calculating the ex-post economic gain or loss;

Opex incentive amount has the meaning given in the Transpower IM;

Other regulated income means income associated with the supply of electricity transmission services, excluding actual transmission revenue and investment-related income;
outage has the meaning set out in clause 12.130 of the code, as amended from time to time, other than as specified in code sub clauses 12.130(2)(c) and 12.130(2)(d), and excludes those that are:

(a) of less than one minute in duration;
(b) at the request of, or caused by, a customer; and
(c) due to correct operation of Transpower’s assets, caused by events in a customer’s assets;

pass-through costs has the meaning given in the Transpower IM;

point of service has the meaning set out in Part 1, clause 1.1(1) of the code;

point of service sub-category means a group of points of service identified by reference to a characteristic of service, as set out in Table 4.1 and Schedule F, and is one of the following:

(a) in relation to measure of grid performance GP1:
   (i) GP1A: “N-1 security high economic consequence”;
   (ii) GP1B: “N-1 security material economic consequence”;
   (iii) GP1C: “N security high economic consequence”;
   (iv) GP1D: “N security material economic consequence”;
   (v) GP1E: “N-1 security generator”; and
   (vi) GP1F: “N security generator”;
(b) in relation to measure of grid performance GP2:

(i) GP2A: “N-1 security high economic consequence”;

(ii) GP2B: “N-1 security material economic consequence”;

(iii) GP2C: “N security high economic consequence”;

(iv) GP2D: “N security material economic consequence”;

(v) GP2E: “N-1 security generator”; and

(vi) GP2F: “N security generator”;

**pricing compliance statement** means a written statement made by Transpower under clause 22;

Pole 2 means one of Transpower’s HVDC poles;

Pole 3 means one of Transpower’s HVDC poles;

**pricing year** has the meaning given in the Transpower IM;

**programme** has the meaning given in the Capex IM;

**project** has the meaning given in the Capex IM;

Project k means the Pole 2 life-extension project planned by Transpower in RCP3;

**publicly disclose (or public disclosure)** means to make available to the public on Transpower’s website and to notify the Commission that it has been made available;
RCP2 means the regulatory period prior to RCP3, being the period from 1 April 2015 to 31 March 2020, provided that references to the final disclosure year in RCP2 means the disclosure year ending on 30 June 2020;

RCP3 means the regulatory period from 1 April 2020 to 31 March 2025, provided that references to the final disclosure year in RCP3 means the disclosure year ending on 30 June 2025;

collective cost has the meaning given in the Transpower IM;

regulatory period means a period determined by the Commission under the Act, during which a particular individual price-quality path determination applies to Transpower, including but not limited to RCP2 or RCP3;

regulatory tax allowance means the tax allowance determined in accordance with clause 3.4.1 of the Transpower IM;

related party has the meaning given in the Transpower IM;

relevant pricing year in relation to a disclosure year, means the pricing year commencing on 1 April immediately before the start of that disclosure year;
restoration to a customer, means the earliest of:

(a) for generators:
   (i) when the generator circuit breaker is closed; or
   (ii) the generator is notified that Transpower equipment has been returned to service and is available for generation to be reconnected; or
   (iii) operational control for connecting the Transpower assets is returned to the generator; and

(b) for customers other than generators:
   (i) when the first feeder is closed, if feeder circuit breakers have been opened; or
   (ii) when the supply bus is relivened, if feeder circuit breakers have remained closed after the interruption; or
   (iii) when 75% of the load is returned to service by way of a backfeed within the customer’s system or by generators; or
   (iv) when Transpower has readied all its equipment and has made reasonable efforts to advise the customer that the equipment can be returned to service;

revenue-linked grid output measure has the meaning given in the Capex IM;

S standard incentive rate base capex allowance has the meaning given in the Capex IM;

system operator has the meaning given in the Transpower IM;
tax rules has the meaning given in the Transpower IM;
term credit spread differential allowance has the meaning given in the Transpower IM;
third party means not a related party and excludes, for the avoidance of doubt, an employee or party contracted by Transpower to provide electricity lines services;
TPM has the meaning given in the Transpower IM;
Transpower has the meaning given in the Act;
Transpower IM means the Transpower Input Methodologies Determination [2012] NZCC 17, including, for the avoidance of doubt, any amendment applicable to RCP3;
unplanned interruption means any interruption for a period of one minute or longer in respect of which less than 24 hours’ notice, or no notice, was given, either to the public or to customers affected by the interruption and excludes:
(a) any unplanned interruptions originating on another party’s system and where the Transpower grid operated correctly;
(b) any unplanned interruptions to the auxiliary load used by electricity generator assets; and
(c) for all point of service sub-categories other than GP1E, GP1F, GP2E, and GP2F:

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

b. automatic under-frequency load-shedding; and

c. unplanned interruptions for which all load is supplied by a backfeed or by embedded generation;

V

value of commissioned asset has the meaning given in the Transpower IM;

value of found asset has the meaning given in the Transpower IM;

W

WACC means, for the purpose of calculating an annual update of a forecast MAR, forecast SMAR or an ex-post economic gain or loss, the weighted average cost of capital published by the Commission in accordance with Part 3 of the Transpower IM;

working day has the meaning given in the Act;

work stoppage means a temporary cessation of work as a form of protest, including without limitation a strike or lockout; and

works under construction has the meaning given in the Transpower IM.
Part 3: Price path

8. Maximum revenues

8.1 The maximum revenue that Transpower may recover for electricity transmission services for each pricing year is the forecast SMAR for that pricing year.

8.2 The forecast revenue for electricity transmission services, including pass-through costs and recoverable costs passed on to any customer, that Transpower uses for setting transmission charges under the TPM for the pricing year must not exceed the forecast SMAR.

8.3 For the purpose of clause 8.1, an update of the ‘forecast SMAR’ is calculated by:

8.3.1 inputting building block values for each disclosure year of the regulatory period into Schedule D;

8.3.2 converting the forecast MAR building blocks to pricing year values by applying the cash flow timing factors in ‘Column 4’ of Schedule D; and

8.3.3 converting the forecast MAR to the forecast SMAR for each pricing year using the methodology set out in clause 3.1.1(3)(b)-(d) of the Transpower IM.

8.4 The IPP revenue growth rate for each pricing year of RCP3 is 1.0%.

8.5 Where Transpower applies to the Commission to reconsider Transpower’s IPP for the purposes of clauses 3.7.4(1) or 3.7.4(4) of the Transpower IM, Transpower must:

8.5.1 provide to the Commission no later than 80 working days after the end of the prior complete disclosure year, a proposed updated forecast MAR and proposed updated forecast SMAR for each of the remaining complete pricing years of RCP3 in accordance with clause 30; and

8.5.2 publicly disclose that proposed updated forecast MAR and forecast SMAR and, where applicable, the forecast EV adjustment amounts in accordance with clause 32.2.

8.6 For the purposes of clause 8.5, Transpower must apply the calculations required in clause 30 and Schedule D, and must include supporting information for its calculations.

9. Wash-up calculation

9.1 For each disclosure year, Transpower must calculate an ex-post economic gain or loss in accordance with clause 29.

9.2 For the purposes of calculating an ex-post economic gain or loss, Transpower must convert the actual transmission revenue from a pricing year value to a disclosure year value in Schedule E, Formula H by applying the cash flow timing factor in ‘Column 4’ of Schedule E.
10. Listed projects

10.1 The projects or programmes identified as listed projects for RCP3 are set out in Schedule I.

10.2 If at any time during RCP3 a project or programme identified in Schedule I ceases to be a base capex project or base capex programme, it is no longer a listed project for RCP3.

Part 4: Quality standards and performance measures

11. Revenue-linked performance measures

11.1 Subject to clause 20, for the purposes of calculating the grid output adjustment under clause 19 and the measures specified in Table 4.1 and Table 4.2, the revenue-linked grid output measures are:

11.1.1 measures of grid performance specified in clause 11.2; and
11.1.2 asset performance measures specified in clause 11.3;

11.2 The measures of grid performance are:

11.2.1 GP1, which measures the total number of unplanned interruptions for each point of service sub-category during a disclosure year; and
11.2.2 GP2, which measures the average duration of unplanned interruptions for each point of service sub-category during a disclosure year.

11.3 The asset performance measures are:

11.3.1 AP1, which measures HVDC energy availability of Pole 2 and Pole 3 as a percentage of annual capacity during a disclosure year, as set out in Table 4.2 and as described in clauses 17.1 to 17.3; and
11.3.2 AP2, which measures percentage of time that the HVAC assets listed in Schedule G are available during a disclosure year, as set out in Table 4.2 and as described in clauses 18.1 to 18.3.

12. Quality standards for revenue-linked grid output measures

12.1 The point of service sub-category limits for each point of service sub-category of measures of grid performance GP1 and GP2 are identified in Table 4.1.

12.2 The quality standards for asset performance measures AP1 and AP2 are identified in Table 4.2.

13. Requirement to calculate GP1 assessed values for first disclosure year of RCP3

13.1 For the disclosure year from 1 July 2020 to 30 June 2021, Transpower must calculate assessed values for each measure of grid performance GP1 point of service sub-category in Table 4.1 in accordance with clauses 14.6 to 14.11.
14. **GP1 quality standard for remaining disclosure years of RCP3**

14.1 To comply with the GP1 quality standard for the disclosure year from 1 July 2021 to 30 June 2022, Transpower must either:

14.1.1 comply with the measure of grid performance GP1 assessment specified in clause 14.5; or

14.1.2 have assessed values for four or more of the GP1 point of service sub-categories for the disclosure year from 1 July 2020 to 30 June 2021 which did not exceed the point of service sub-category limit specified for each of those measure of grid performance GP1 point of service sub-categories in Table 4.1, as calculated in accordance with clauses 14.6 to 14.11.

14.2 To comply with the GP1 quality standard for the disclosure year from 1 July 2022 to 30 June 2023, Transpower must either:

14.2.1 comply with the measure of grid performance GP1 assessment specified in clause 14.5; or

14.2.2 have:

(a) complied with the measure of grid performance GP1 assessment specified in clause 14.5 for the disclosure year from 1 July 2021 to 30 June 2022; and

(b) assessed values for four or more of the GP1 point of service sub-categories for the disclosure year from 1 July 2020 to 30 June 2021 which did not exceed the point of service sub-category limit specified for each of those measure of grid performance GP1 point of service sub-categories in Table 4.1, as calculated in accordance with clauses 14.6 to 14.11.

14.3 To comply with the GP1 quality standard for the disclosure year from 1 July 2023 to 30 June 2024, Transpower must either:

14.3.1 comply with the measure of grid performance GP1 assessment specified in clause 14.5; or

14.3.2 have complied with the measure of grid performance GP1 assessment specified in clause 14.5 in each of the two preceding disclosure years of RCP3.

14.4 To comply with the GP1 quality standard for the disclosure year from 1 July 2024 to 30 June 2025, Transpower must either:

14.4.1 comply with the measure of grid performance GP1 assessment specified in clause 14.5; or

14.4.2 have complied with the measure of grid performance GP1 assessment specified in clause 14.5 in each of the two preceding disclosure years of RCP3.
14.5 For the purposes of clauses 14.1 to 14.4, to comply with the measure of grid performance GP1 assessment, Transpower’s assessed value for four or more of the point of service sub-categories for the disclosure year must not exceed the point of service sub-category limit specified for the disclosure year for each of those measure of grid performance GP1 point of service sub-categories in Table 4.1.

14.6 Subject to clause 20, for the purposes of clause 13 and 14.5, Transpower’s assessed value for point of service sub-category GP1A for a disclosure year is calculated in accordance with the formula:

\[ GP1A \text{ assessed value} = \text{the sum of unplanned interruptions for the point of service sub-category GP1A commencing within the disclosure year.} \]

14.7 Subject to clause 20, for the purposes of clauses 13 and 14.5, Transpower’s assessed value for point of service sub-category GP1B for a disclosure year is calculated in accordance with the formula:

\[ GP1B \text{ assessed value} = \text{the sum of unplanned interruptions for the point of service sub-category GP1B commencing within the disclosure year.} \]

14.8 Subject to clause 20, for the purposes of clause 13 and 14.5, Transpower’s assessed value for point of service sub-category GP1C for a disclosure year is calculated in accordance with the formula:

\[ GP1C \text{ assessed value} = \text{the sum of unplanned interruptions for the point of service sub-category GP1C commencing within the disclosure year.} \]

14.9 Subject to clause 20, for the purposes of clause 13 and 14.5, Transpower’s assessed value for point of service sub-category GP1D for a disclosure year is calculated in accordance with the formula:

\[ GP1D \text{ assessed value} = \text{the sum of unplanned interruptions for the point of service sub-category GP1D commencing within the disclosure year.} \]

14.10 Subject to clause 20, for the purposes of clause 13 and 14.5, Transpower’s assessed value for point of service sub-category GP1E for a disclosure year is calculated in accordance with the formula:

\[ GP1E \text{ assessed value} = \text{the sum of unplanned interruptions for the point of service sub-category GP1E commencing within the disclosure year.} \]

14.11 Subject to clause 20, for the purposes of clause 12.2 and 14.5, Transpower’s assessed value for point of service sub-category GP1F for a disclosure year is calculated in accordance with the formula:

\[ GP1F \text{ assessed value} = \text{the sum of unplanned interruptions for the point of service sub-category GP1F commencing within the disclosure year.} \]
15. **Requirement to calculate GP2 assessed values for first disclosure year of RCP3**

15.1 For the **disclosure year** from 1 July 2020 to 30 June 2021, Transpower must calculate assessed values for each measure of grid performance GP2 point of service sub-category in Table 4.1 in accordance with clauses 16.6 to 16.11.

16. **GP2 quality standard for remaining disclosure years of RCP3**

16.1 To comply with the GP2 quality standard for the **disclosure year** from 1 July 2021 to 30 June 2022, Transpower must either:

16.1.1 comply with the measure of grid performance GP2 assessment specified in clause 16.5; or

16.1.2 have assessed values for four or more of the GP2 point of service sub-categories for the disclosure year from 1 July 2020 to 30 June 2021 which did not exceed the point of service sub-category limit specified for each of those measures of grid performance GP2 point of service sub-categories in Table 4.1, as calculated in accordance with clauses 16.6 to 16.11.

16.2 To comply with the GP2 quality standard for the disclosure year from 1 July 2022 to 30 June 2023, Transpower must either:

16.2.1 comply with the measure of grid performance GP2 assessment specified in clause 16.5; or

16.2.2 have:

(a) complied with the measure of grid performance GP2 assessment specified in clause 16.5 for the disclosure year from 1 July 2021 to 30 June 2022; and

(b) assessed values for four or more of the GP2 point of service sub-categories for the disclosure year from 1 July 2020 to 30 June 2021 which did not exceed the point of service sub-category limit specified for each of those measures of grid performance GP2 point of service sub-categories in Table 4.1, as calculated in accordance with clauses 16.6 to 16.11.

16.3 To comply with the GP2 quality standard for the disclosure year from 1 July 2023 to 30 June 2024, Transpower must either:

16.3.1 comply with the measure of grid performance GP2 assessment specified in clause 16.5; or

16.3.2 have complied with the measure of grid performance GP2 assessment specified in clause 16.5 in each of the two preceding disclosure years of RCP3.
16.4 To comply with the GP2 quality standard for the disclosure year from 1 July 2024 to 30 June 2025, Transpower must either:

16.4.1 comply with the measure of grid performance GP2 assessment specified in clause 16.5; or

16.4.2 have complied with the measure of grid performance GP2 assessment specified in clause 16.5 in each of the two preceding disclosure years of RCP3.

16.5 For the purposes of clause 16.1 to 16.4, to comply with the measure of grid performance GP2 assessment, Transpower’s assessed value for four or more of the point of service sub-categories for the disclosure year must not exceed the point of service sub-category limit specified for each of those measure of grid performance GP2 point of service sub-categories in Table 4.

16.6 Subject to clause 20, for the purposes of clauses 15 and 16.5, Transpower’s assessed value for point of service sub-category GP2A for a disclosure year is calculated in accordance with the formula:

\[
\text{GP2A assessed value} = \frac{\text{the sum of the duration of all unplanned interruptions for the point of service sub-category GP2A commencing within the disclosure year}}{\text{the total number of unplanned interruptions for the point of service sub-category GP2A commencing within the disclosure year}}
\]

16.7 Subject to clause 20, for the purposes of clauses 15 and 16.5, Transpower’s assessed value for point of service sub-category GP2B for a disclosure year is calculated in accordance with the formula:

\[
\text{GP2B assessed value} = \frac{\text{the sum of the duration of all unplanned interruptions for the point of service sub-category GP2B commencing within the disclosure year}}{\text{the total number of unplanned interruptions for the point of service sub-category GP2B commencing within the disclosure year}}
\]

16.8 Subject to clause 20, for the purposes of clauses 15 and 16.5, Transpower’s assessed value for point of service sub-category GP2C for a disclosure year is calculated in accordance with the formula:

\[
\text{GP2C assessed value} = \frac{\text{the sum of the duration of all unplanned interruptions for the point of service sub-category GP2C commencing within the disclosure year}}{\text{the total number of unplanned interruptions for the point of service sub-category GP2C commencing within the disclosure year}}
\]

16.9 Subject to clause 20, for the purposes of clauses 15 and 16.5, Transpower’s assessed value for point of service sub-category GP2D for a disclosure year is calculated in accordance with the formula:

\[
\text{GP2D assessed value} = \frac{\text{the sum of the duration of all unplanned interruptions for the point of service sub-category GP2D commencing within the disclosure year}}{\text{the total number of unplanned interruptions for the point of service sub-category GP2D commencing within the disclosure year}}
\]
16.10 Subject to clause 20, for the purposes of clauses 15 and 16.5, Transpower’s assessed value for point of service sub-category GP2E for a disclosure year is calculated in accordance with the formula:

\[ \text{GP2E assessed value} = \text{the sum of the duration of all unplanned interruptions for the point of service sub-category GP2E commencing within the disclosure year} \]

\[ \text{divided by the total number of unplanned interruptions for the point of service sub-category GP2E commencing within the disclosure year}. \]

16.11 Subject to clause 20, for the purposes of clauses 15 and 16.5, Transpower’s assessed value for point of service sub-category GP2F for a disclosure year is calculated in accordance with the formula:

\[ \text{GP2F assessed value} = \text{the sum of the duration of all unplanned interruptions for the point of service sub-category GP2F commencing within the disclosure year} \]

\[ \text{divided by the total number of unplanned interruptions for the point of service sub-category GP2F commencing within the disclosure year}. \]

17. AP1 quality standard for each disclosure year of RCP3

17.1 For each disclosure year, Transpower must comply with the asset performance measure AP1 quality standard as specified in clause 17.2.

17.2 For the purpose of clause 17.1, to comply with the asset performance measure AP1 quality standard, the HVDC energy availability for Pole 2 and Pole 3 for the disclosure year as calculated in accordance with clause 17.3 must be higher than the AP1 quality standard value in Table 4.

17.3 For the purposes of clause 17.2, subject to clause 17.4 and clause 20, the HVDC energy availability for Pole 2 and Pole 3 for the disclosure year is calculated as a percentage term in accordance with the formula:

\[ 100 \times \frac{(\text{maximum capacity of HVDC poles}) \times (\text{total number of hours in the disclosure year})}{(\text{duration of outage } j) \times (\text{reduction in capacity due to outage } j)} \]

where:

- \( j \) is the outage that reduced capacity of the HVDC pole(s) in the disclosure year
- \( N \) is the total number of outages associated with the HVDC poles
17.4 For the purposes of clause 17.2 and subject to clause 20, for a maximum of three disclosure years of RCP3 during the life of Project k, the Project k adjustment may be added to the HVDC energy availability for Pole 2 and Pole 3 calculated in accordance with clause 17.3, where the Project k adjustment for each disclosure year is calculated in accordance with the formula:

Project k adjustment = the lesser of (0.7 or p)

where:

\[ p = 100 \left( \frac{\text{reduction in capacity due to Project k related outages}}{\text{duration of Project k outage hours}} \times \frac{\text{maximum capacity of HVDC poles}}{\text{total number of hours in the disclosure year}} \right) \]

18. AP2 quality standard for each disclosure year of RCP3

18.1 For each disclosure year, Transpower must comply with the asset performance measure AP2 quality standard as specified in clause 18.2.

18.2 For the purpose of clause 18.1, to comply with the asset performance measure AP2 quality standard, the percentage of the time that the HVAC assets listed in Schedule G are available during the disclosure year, as calculated in accordance with clause 18.3, must be higher than the AP2 quality standard value in Table 4.2.

18.3 For the purposes of clause 18.2, subject to clause 20, the percentage of the time that the HVAC assets are available during the disclosure year is calculated as a percentage term in accordance with the formula:

\[ 100 - \frac{100 \times (\text{total duration (in hours) of all outages on the HVAC circuits listed in Schedule G})}{(\text{number of HVAC circuits listed in Schedule G}) \times (\text{total number of hours in the disclosure year})} \]
Table 4.1: Measures of grid performance for grid output targets, caps, collars, point of service sub-category limits and grid output incentive rates for revenue-linked grid output measures

<table>
<thead>
<tr>
<th>Point of service sub-category</th>
<th>Cap</th>
<th>Grid output target</th>
<th>Collar</th>
<th>Point of service sub-category limit</th>
<th>Grid output incentive rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GP1: number of interruptions (per annum)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GP1A: N-1 security high economic consequence</td>
<td>0</td>
<td>7</td>
<td>14</td>
<td>14</td>
<td>335,714</td>
</tr>
<tr>
<td>GP1B: N-1 security material economic consequence</td>
<td>7</td>
<td>24</td>
<td>41</td>
<td>41</td>
<td>40,294</td>
</tr>
<tr>
<td>GP1C: N security high economic consequence</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>8</td>
<td>250,000</td>
</tr>
<tr>
<td>GP1D: N security material economic consequence</td>
<td>9</td>
<td>23</td>
<td>37</td>
<td>37</td>
<td>41,786</td>
</tr>
<tr>
<td>GP1E: N-1 security generator</td>
<td>5</td>
<td>9</td>
<td>13</td>
<td>13</td>
<td>62,500</td>
</tr>
<tr>
<td>GP1F: N security generator</td>
<td>6</td>
<td>12</td>
<td>18</td>
<td>18</td>
<td>41,667</td>
</tr>
<tr>
<td><strong>GP2: average duration of interruption (min)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GP2A: N-1 security high economic consequence</td>
<td>30</td>
<td>92</td>
<td>154</td>
<td>154</td>
<td>37,903</td>
</tr>
<tr>
<td>GP2B: N-1 security material economic consequence</td>
<td>36</td>
<td>61</td>
<td>86</td>
<td>86</td>
<td>27,400</td>
</tr>
<tr>
<td>GP2C: N security high economic consequence</td>
<td>0</td>
<td>103</td>
<td>206</td>
<td>206</td>
<td>4,854</td>
</tr>
<tr>
<td>GP2D: N security material economic consequence</td>
<td>0</td>
<td>140</td>
<td>280</td>
<td>280</td>
<td>4,179</td>
</tr>
<tr>
<td>GP2E: N-1 security generator</td>
<td>50</td>
<td>174</td>
<td>298</td>
<td>298</td>
<td>2,016</td>
</tr>
<tr>
<td>GP2F: N security generator</td>
<td>11</td>
<td>93</td>
<td>175</td>
<td>175</td>
<td>3,049</td>
</tr>
</tbody>
</table>
Table 4.2: Asset performance measures grid output targets, caps, collars, quality standards and grid output incentive rates for revenue-linked grid output measures

<table>
<thead>
<tr>
<th>Asset performance measure</th>
<th>Cap</th>
<th>Grid output target</th>
<th>Collar</th>
<th>Quality standard</th>
<th>Grid output incentive rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP1: HVDC availability (%)</td>
<td>99.75</td>
<td>98.75</td>
<td>97.75</td>
<td>96.75</td>
<td>$ per 1%</td>
</tr>
<tr>
<td>HVAC availability (71 selected assets)</td>
<td>99.2</td>
<td>99.0</td>
<td>98.8</td>
<td>98.6</td>
<td>5,000,000</td>
</tr>
</tbody>
</table>

19. The grid output adjustment

19.1 Transpower must calculate the grid output adjustment for each disclosure year for the revenue-linked grid output measures.

19.2 For measures of grid performance GP1 and GP2 and asset performance measures AP1 and AP2, the grid output target, cap, collar, and grid output incentive rate in Table 4.1 and Table 4.2 apply.

19.3 For the purposes of calculating the grid output adjustment, the output achieved is:

19.3.1 for each of the point of service sub-categories GP1A, GP1B, GP1C, GP1D, GP1E and GP1F, the total number of all unplanned interruptions commencing within the disclosure year;

19.3.2 for each of the point of service sub-categories GP2A, GP2B, GP2C, GP2D, GP2E and GP2F, the sum of the durations of all unplanned interruptions in the disclosure year divided by the total number of unplanned interruptions commencing within the disclosure year;

19.3.3 for asset performance measure AP1, subject to clause 19.3.4 and clause 20, the HVDC energy availability for Pole 2 and Pole 3 is calculated as a percentage term in the following manner:

\[
100 - \left(100 \sum_{j=1}^{N} \left( \frac{\text{reduction in capacity due to outage } j}{\text{maximum capacity of HVDC poles}} \right) \frac{(\text{duration of outage } j \text{ in hours})}{(\text{total number of hours in the disclosure year})} \right)
\]

where:

- \( j \) is the outage that reduced capacity of the HVDC pole(s) in the disclosure year;

- \( N \) is the total number of outages associated with the HVDC poles; and

Commented [A19]: Clauses 19.3.1 and 19.3.2 should be expressly subject to clause 20 (normalisation) as clauses 19.3.3 and 19.3.4 already are.

Commented [A20]: This cross-reference should be to clause 19.4.
19.3.4 for asset performance measure AP2, subject to clause 20, the percentage term calculated as:

\[
\frac{100(\text{total duration (in hours) of all outages on the HVAC circuits listed in Schedule 6})}{\text{(number of HVAC circuits listed in Schedule 6)}(\text{total number of hours in the disclosure year})}
\]

19.4 For the purposes of clause 19.3.3, subject to clause 20, for a maximum of 3 disclosure years of RCP3 during the life of Project k, the Project k adjustment may be added to the HVDC energy availability for Pole 2 and Pole 3 calculated in accordance with clause 19.3.3, where the Project k adjustment for each disclosure year is calculated in accordance with the formula:

\[
\text{Project k adjustment} = \text{the lesser of } (0.7 \text{ or } p)
\]

where:

\[
p = \frac{(\text{reduction in capacity due to Project k related outages})(\text{duration of Project k outage hours})}{(\text{maximum capacity of HVDC poles})(\text{total number of hours in the disclosure year})}
\]

20. Normalisation

20.1 Subject to clauses 20.3 and 20.4, an interruption or outage may be excluded from the calculations made under clauses 14.6-14.11 and 16.6-16.11 of measures of grid performance or the calculations made under clauses 17.3-17.4, 18.3, 19.3.3-19.3.4 and 19.4 of asset performance measures where the Commission is satisfied that a normalisation event has occurred.

20.2 A ‘normalisation event’ means an interruption or outage that –

20.2.1 was beyond the reasonable control of Transpower;

20.2.2 Transpower did not cause, or materially contribute to, by any failure to exercise good electricity industry practice;

20.2.3 had a duration of 24 hours or more, in circumstances where that duration was –

(a) beyond the reasonable control of Transpower; and

(b) not caused, or materially contributed to, by any failure of Transpower to exercise good electricity industry practice; and
20.2.4 was the result of:

(a) natural disaster;
(b) fire not caused by Transpower equipment failure;
(c) explosion not caused by Transpower equipment failure;
(d) civil commotion;
(e) terrorism;
(f) malicious damage;
(g) war (declared or undeclared);
(h) revolution;
(i) contamination;
(j) action or inaction by a court or government agency (including denial, refusal or failure to grant any authorisation, despite timely best endeavour to obtain an authorisation);
(k) a work stoppage;
(l) a dispute between an employer and employees;
(m) work bans; or
(n) acts or omissions (other than failure to pay money) of a third party that affect the ability of Transpower to prevent or minimise the interruption or outage.

Commented [A25]: This would be better as: a "terrorist act" as defined in the Terrorism Suppression Act 2002;
20.3 For the purposes of determining whether a normalisation event has occurred in accordance with clause 20.2, Transpower must make a written application to the Commission no later than 105 working days from the end of a disclosure year, which provides:

20.3.1 that Transpower considers a normalisation event has occurred in the disclosure year;

20.3.2 reasons for why Transpower considers a normalisation event has occurred, including why it considers:

(a) the interruption or outage was beyond Transpower's reasonable control;

(b) the effect of the interruption or outage on the grid, including managing to a shorter duration than that which actually occurred, was beyond Transpower's reasonable control; and

(c) it exercised good electricity industry practice in relation to the cause and effects of the interruption or outage;

20.3.3 supporting evidence for the reasons provided in accordance with clause 20.3.2, including, without limitation, information on the relevant design standards of any equipment involved in the interruption or outage;

20.3.4 proposed reassessed values of any calculations made under clauses 14.6-14.11 and 16.6-16.11 of measures of grid performance or calculations made under clauses 17.3-17.4, 18.3, 19.3.3-19.3.4 and 19.4 of asset performance measures that are relevant to Transpower's written application in circumstances where the interruption or outage is excluded from those measures in accordance with clause 20.1; and

20.3.5 any other information that Transpower considers is relevant to its application.

20.4 Where the Commission is satisfied that a normalisation event has occurred, the Commission shall:

20.4.1 give or post notice to Transpower, which describes:

(a) the interruption or outage that is excluded as a normalisation event;

(b) reasons for why the Commission has excluded that normalisation event; and

(c) what calculations made under clauses 14.6-14.11 and 16.6-16.11 of measures of grid performance or calculations made under clauses 17.3-17.4, 18.3, 19.3.3-19.3.4 and 19.4 of asset performance measures are affected as a result of (a); and

Commented [A26]: Confirmation of a normalisation event should happen before the annual compliance statement for the disclosure year is submitted, as the statement is required to include normalisation event information under clause 24.1.1 (including the grid output adjustment calculation). Accordingly, this deadline should be sooner than the deadline for the statement (which is also 105 working days). We suggest 60 working days, which we believe will give the Commission enough time to make its determination under clause 20.4.

See also our comment on clause 20.4

Commented [A27]: Given the nature of events in 20.2.4, we do not consider it will always be possible to exercise good electricity industry practice in relation to those causes (e.g. terrorism, war, civil commotion). We suggest adding this to the end of this clause:

...to the extent good electricity industry practice can be applied to the cause and effects;

Commented [A28]: It would be helpful to have a specified time period in which the Commission must make its decision on a normalisation event so we can be assured we will have enough time to factor the decision into the annual compliance statement and grid output adjustment calculation for the relevant disclosure year.
20.4.2 publicly disclose that the normalisation event has been excluded from those calculations.

21. Quality standards where grid output measures not linked to revenue

21.1 For each disclosure year, Transpower must comply with the asset health measure AH quality standard, which measures the percentage of assets with AHI of 8 or greater for each asset health measure asset class described in clauses 21.3 to 21.4 and Table 4.3.

21.2 For the purposes of clause 21.1, to comply with the asset health quality standard, Transpower’s assessed value for each asset health measure asset class must not be higher than the quality standard specified for that asset health measure asset class in Table 4.3.

21.3 For the purposes of clause 21.2, Transpower’s assessed value for the power transformers asset health measure asset class for each disclosure year is calculated in accordance with the formula:

\[
\text{Power transformers assessed value} = \frac{\text{the sum of all power transformer assets with an AHI of 8 or higher}}{\text{the sum of all power transformer assets}} \times 100
\]

21.4 For the purposes of clause 21.2, Transpower’s assessed value for the outdoor circuit breakers asset health measure asset class for each disclosure year is calculated in accordance with the formula:

\[
\text{Outdoor circuit breakers assessed value} = \frac{\text{the sum of all outdoor circuit breaker assets with an AHI of 8 or higher}}{\text{the sum of all outdoor circuit breaker assets}}
\]

Table 4.3: Quality standards for each asset health measure asset class by disclosure year

<table>
<thead>
<tr>
<th>Asset health measure asset class</th>
<th>2020/2021 (%)</th>
<th>2021/2022 (%)</th>
<th>2022/2023 (%)</th>
<th>2023/2024 (%)</th>
<th>2024/2025 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power transformers</td>
<td>3.22</td>
<td>3.68</td>
<td>5.37</td>
<td>8.65</td>
<td>12.03</td>
</tr>
<tr>
<td>Outdoor circuit breakers</td>
<td>2.00</td>
<td>2.37</td>
<td>5.65</td>
<td>7.63</td>
<td>8.27</td>
</tr>
</tbody>
</table>

Part 5: Compliance and information reporting

22. Pricing compliance statement

22.1 No later than five working days after Transpower announces, or amends, its forecast revenue for the purpose of setting or resetting charges under the TPM for a pricing year, Transpower must:
22.1.1 provide to the Commission a written statement (the pricing compliance statement); and

22.1.2 publicly disclose the pricing compliance statement.

22.2 The pricing compliance statement must:

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

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

22.2.3 if Transpower has not complied with the price path in Part 3 for the pricing year, disclose:

(a) each requirement in Part 3 that is not complied with; and

(b) the reasons for non-compliance in each case;

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

22.2.5 include a certificate in the form set out in Schedule J signed by at least two directors of Transpower.

23. Annual compliance statement

23.1 Subject to clause 27, no later than 105 working days after the end of each disclosure year, Transpower must:

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

23.1.2 publicly disclose the annual compliance statement and accompanying independent assurance report.

23.2 The annual compliance statement must:

23.2.1 state whether or not Transpower has:

(a) complied with the quality standards in clauses 14.1-14.4, 16.1-16.4, 17.1, 18.1 and 21.1;

(b) complied with the requirement to publicly disclose, in accordance with the ID determination, its annual grid output adjustment calculation for the disclosure year, including the values for ‘m’ calculated in accordance with Schedule B, clause B2(1) of the Capex IM;
(c) complied with requirements related to grid output adjustment calculations and public disclosure; and

(d) complied with requirements related to wash-up calculations and public disclosure;

23.2.2 provide the information reasonably necessary to demonstrate compliance with the quality standards in clauses 14.1-14.4, 16.1-16.4, 17.1, 18.1 and 21.1;

23.2.3 if Transpower has not complied with any quality standards in clauses 14.1-14.4, 16.1-16.4, 17.1, 18.1 and 21.1, disclose:

(a) each requirement and quality standard that is not complied with; and

(b) the reasons for non-compliance in each case;

23.2.4 include information on performance against the following performance measures:

(a) for measure of grid performance GP1: the assessed value and the point of service sub-category limit for each point of service sub-category for the disclosure year;

(b) for measure of grid performance GP1: the cap and grid output target for each point of service sub-category for the disclosure year;

(c) for measure of grid performance GP2: the assessed value and the point of service sub-category limit for each point of service sub-category for the disclosure year;

(d) for measure of grid performance GP2: the cap and grid output target for each point of service sub-category for the disclosure year;

(e) for asset performance measure AP1: Transpower’s HVDC energy availability for the Pole 2 and Pole 3 for the disclosure year, and the quality standard for the disclosure year;

(f) for asset performance measure AP1: the cap, collar and grid output target for the disclosure year;

(g) for asset performance measure AP2: the percentage of the time that Transpower’s HVAC assets listed in Schedule G are available during the disclosure year, and the quality standard for the disclosure year;

(h) for asset performance measure AP2: the cap, collar and grid output target for the disclosure year;

(i) for asset health measure AH: the assessed value and the quality standard for each asset health measure asset class for the disclosure year;

Commented [A31]: These words are redundant as this clause is only concerned with quality standards.

Commented [A32]: The drafting of this clause is awkward because it is not always clear what is being reported “against” what. Also, there is no need for Transpower to report caps, collars, targets and quality standards themselves because those are written in the IPP. We suggest this alternative drafting:

23.3.4 include the following performance information.

(a) for measures of grid performance GP1 and GP2: assessed values for the disclosure year against the caps, targets and collars in Table 4.1 and the relevant quality standard in clause 14 or 16;

(b) for asset performance measures AP1 and AP2: assessed values for the disclosure year against the caps, targets and collars in Table 4.2 and the relevant quality standard in clause 17.2 or 18.2; and

(c) for asset health measure AH: assessed values for the disclosure year against the relevant quality standard in clause 21.2.
23.2.5 state the date on which the annual compliance statement was prepared;

23.2.6 include a certificate in the form set out in Schedule K, signed by at least two directors of Transpower; and

23.2.7 be accompanied by an independent assurance report procured and prepared in accordance with clause 34.

24. Annual compliance statement – information required

24.1 The annual compliance statement for a disclosure year must include:

24.1.1 the ex-post economic gain or loss for the disclosure year, calculated in accordance with clause 29.1 and Schedule E, including any supporting information;

24.1.2 the forecast revenue for electricity transmission services, including pass-through costs and recoverable costs passed on to any customer, that Transpower used for setting charges under the TPM for the relevant pricing year;

24.1.3 the HVAC transmission revenue for the relevant pricing year;

24.1.4 the HVDC transmission revenue for the relevant pricing year;

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

24.1.6 an updated summary of the EV account as set out in Schedule B and an updated forecast EV account balance at the end of RCP3, where these are supported by the further information required in clause 31.1, and where the EV account entries are calculated in accordance with clause 31.2;

24.1.7 a summary of pass-through costs and recoverable costs as set out in Schedule H, including:

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

(b) a summary of any prudent net additional operating costs incurred in responding to a catastrophic event;

24.1.8 an explanation for the difference between the forecast opex and actual opex, including in each forecast and actual total the operating lease payments otherwise capitalised in accordance with the Transpower IM, and that are applied in the calculation of the opex incentive amount for that disclosure year;

24.1.9 updated summaries of the approved base capex as set out in Schedules C1 to C4;

Commented [A33]: This information appears to be duplication of the information required under clauses 24.1.3 and 24.1.4.

Commented [A34]: These costs should be specified to be "for the disclosure year".

Commented [A35]: It is unclear why these particular examples are called out.

Commented [A36]: There is an "of" missing here.

Commented [A37]: These words should be deleted. The only values that contribute to the opex incentive amount "for that disclosure year" (i.e. in RCP3) are values for disclosure years in RCP2.
24.1.10 details of any changes to Transpower’s policy of hedging capital expenditure during the disclosure year; and

24.1.11 where a normalisation event is excluded from the calculation of assessed values of revenue-linked grid output measures in accordance with clause 20.4 for a disclosure year, a description of the adjustment to the EV account to reflect the effect on the grid output adjustment for that disclosure year.

25. Information to accompany the annual compliance statement

25.1 Transpower must publicly disclose the following additional information at the same time as its annual compliance statement for the following performance measures:

25.1.1 for asset performance measures AP1 and AP2: identify where the grid output measure is outside the cap or collar of the incentive range and the main reasons for this;

25.1.2 for asset performance measure AP3, which measures the extent to which Transpower meets estimated return to service times for planned outages of the HVAC assets set out in Schedule G: identify those assets in Schedule G that are returned to service two or more hours after Transpower’s estimated return to service time, including:

(a) when this has occurred;
(b) the impact on affected parties, including the market, if applicable; and
(c) the steps Transpower took to inform affected parties and the market;

25.1.3 for asset performance measure AP4, which measures the extent to which Transpower communicates delays to affected parties of planned outage return to service times of the HVAC assets set out in Schedule G – for assets in Schedule G, the percentage of time that Transpower gives 1.5 hours or more notice to the market in the event assets are going to be returned to service later than the original planned return to service time;

25.1.4 for asset performance measure AP5, which measures the extent that Transpower has placed customers on a reduced level of supply security, with that reduced level being N-security of supply: the extent that Transpower has placed customers on N-security of supply, including:

(a) when this has occurred;
(b) how much notice Transpower provided to customers before it occurred;
(c) how long customers were reduced to N-security of supply; and
(d) the points of service affected by the reduced N-security of supply;

Commented [A38]: This partially duplicates clauses 28.5 and 28.6. We are unclear why Transpower has to explain why its performance was better than the cap.

Commented [A39]: This should be deleted. Transpower is unlikely to know what the impact on affected parties or the market of the late return to service was.

Commented [A40]: These words are redundant.

Commented [A41]: This should not be the original estimated return to service time as this clause should capture extended estimated return to service times too. We note the inconsistency in language between this clause and clause 35.1.2 (e.g. “planned” versus “estimated”).

Commented [A42]: Some customers are on N-security by design. This should be: …a reduced level of supply security due to an outage…

Commented [A43]: References in the subclauses to “customers” should be “the customers” so it is clear Transpower does not have to notify any of its customers that are not affected by the outage.
25.1.5 Customer service measure CS1, which relates to the timeliness of post-interruption event communication and information provided to affected customers: the results of post-interruption event surveys of customers affected by interruptions.

26. Periodic reporting for performance events

26.1 Subject to clause 27, for each unplanned interruption during a disclosure year which lasts 12 hours or more, Transpower must publicly disclose within 42 working days of the unplanned interruption:

26.1.1 the cause of the unplanned interruption;
26.1.2 the start date and time of the unplanned interruption;
26.1.3 the end date and time of the unplanned interruption;
26.1.4 the megawatts affected by the unplanned interruption;
26.1.5 the grid exit point(s) and grid injection point(s) affected by the unplanned interruption;
26.1.6 actions Transpower took to minimise the effect of the unplanned interruption; and
26.1.7 lessons Transpower has learned as a result of the unplanned interruption.

26.2 Subject to clause 27, for each interruption during a disclosure year over one system minute, Transpower must publicly disclose within 42 working days of the interruption:

26.2.1 the cause of the interruption;
26.2.2 the start date and time of the interruption;
26.2.3 the end date and time of the interruption;
26.2.4 the megawatts affected by the interruption;
26.2.5 the grid exit point(s) and grid injection point(s) affected by the interruption;
26.2.6 actions Transpower took to minimise the effect of the interruption; and
26.2.7 lessons Transpower has learned as a result of the interruption.

27. Extension of reporting time limits

27.1 For the purposes of clauses 23.1, 26, Transpower may apply to the Commission to extend the time limit set out in those clauses if—

27.1.1 Transpower considers that an extension is reasonably justified having regard to the circumstances; and

Commented [A44]: CS1 is not about timeliness of communication. It is about the results of the post-event surveys.

Commented [A45]: CS1 should only apply to unplanned interruptions. Planned interruptions will be subject to Transpower’s normal outage planning process, which will include providing up-front information about the timing of and reasons for the interruption.

We note that this information is duplicated in the proposed 53ZD notice for customer consultation information (clause 2.5 of the notice). We also note that clause A6 of the notice restricts the information to information about unplanned interruptions.

Commented [A46]: In contrast to clause 26.1 (which is identical but for the duration of the interruption), this clause captures planned as well as unplanned interruptions. We do not believe that is intended. Planned interruptions will be subject to Transpower’s normal outage planning process, which will include providing up-front information about the timing of and reasons for the interruption.

The references to “interruption” in this clause should be changed to “unplanned interruption”.

Commented [A47]: There is an “and” missing here. This clause should also apply to clause 22.1 (time limit for the pricing compliance statement).
27.1.2 the application for extension is made to the Commission no later than 15 working days before the time limit set out in those clauses is due to expire.

27.2 For the purposes of clause 27.1:

27.2.1 any extension given by the Commission shall be effected by giving or posting notice of the extension to Transpower;

27.2.2 the notice effecting the extension must specify the period of the extension and the reasons for the extension; and

27.2.3 the notice will be published by the Commission.

28. Annual reporting for performance events

28.1 Transpower must publicly disclose at the same time as its annual compliance statement a summary of all reports publicly disclosed under clause 26.1 for the disclosure year.

28.2 Transpower must publicly disclose at the same time as its annual compliance statement a summary of all reports publicly disclosed under clause 26.2 for the disclosure year.

28.3 Transpower must publicly disclose at the same time as its annual compliance statement, for measure of grid performance GP-M, which measures reliability through the number of momentary interruptions: the number of momentary interruptions for the disclosure year;

28.4 Where Transpower must publicly disclose at the same time as its annual compliance statement:

28.4.1 the cause of each momentary interruption;

28.4.2 the date and time of each momentary interruption;

28.4.3 the grid exit point(s) and grid injection point(s) affected by each momentary interruption; and

28.4.4 an explanation of any general trends in momentary interruptions.

28.5 Where asset performance measure AP1, as calculated in accordance with clause 19.3.3, is lower than the collar value specified in Table 4.2, Transpower must publicly disclose at the same time as its annual compliance statement:

28.5.1 the events that caused asset performance measure AP1 to go below the collar;

28.5.2 reasons for asset performance measure AP1 going below the collar;

28.5.3 the impact on customers for the events described in clause 28.5.1.
28.5.4 actions Transpower has taken to minimise the effect of the events described in clause 28.5.1; and

28.5.5 lessons Transpower has learned as a result of going below the collar.

28.6 Where asset performance measure AP2, as calculated in accordance with clause 19.3.4, is lower than the collar value specified in Table 4.2, Transpower must publicly disclose at the same time as its annual compliance statement:

28.6.1 the events that caused asset performance measure AP2 to go below the collar;

28.6.2 reasons for asset performance measure AP2 going below the collar;

28.6.3 the impact on customers for the events described in clause 28.6.1; and

28.6.4 actions Transpower has taken to minimise the effect of the events described in clause 28.6.1; and

28.6.5 lessons Transpower has learned as a result of going below the collar.

28.7 Where Transpower has not complied with the asset health measure AH standard for an asset health measure asset class, as specified in clause 21.1, it must publicly disclose at the same time as its annual compliance statement:

28.7.1 reasons for not meeting the quality standard, and supporting evidence for those reasons; and

28.7.2 steps that have been put in place by Transpower to prevent future non-compliance with the quality standard.

29. Wash-up building blocks calculation

29.1 For the purposes of annually calculating the ex-post economic gain or loss, Transpower must use:

29.1.1 the approach and formulae specified in Schedule E;

29.1.2 the opening RAB value;

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

29.1.4 the WACC;

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

29.1.6 the opex allowance, excluding operating lease payments capitalised in accordance with the Transpower IM, being:
(a) for the disclosure year from 1 July 2020 to 30 June 2021, $271.5 million;

(b) for the disclosure year from 1 July 2021 to 30 June 2022, $276.0 million;

(c) for the disclosure year from 1 July 2022 to 30 June 2023, $286.0 million;

(d) for the disclosure year from 1 July 2023 to 30 June 2024, $295.6 million; and

(e) for the disclosure year from 1 July 2024 to 30 June 2025, $295.9 million;

29.1.7 the corporate tax rate;

29.1.8 the regulatory tax allowance calculated:

(a) by applying the tax rules and corporate tax rate to the regulatory profit/(loss) before tax in accordance with Part 2, Subpart 3 of the Transpower IM;

(b) using the term credit spread differential allowance calculated in accordance with Part 2, Subpart 4 of the Transpower IM; and

(c) using as the amount of regulatory profit/(loss) before tax for the purpose of this calculation, the sum of:

(i) the regulatory profit/(loss) before tax disclosed by Transpower for the disclosure year in accordance with the ID determination; and

(ii) the term credit spread differential allowance calculated in subclause (b);

29.1.9 the term credit spread differential allowance;

29.1.10 for actual revenues received by Transpower:

(a) the actual transmission revenue received in the pricing year, as converted to a disclosure year value in accordance with clause 9.2; and

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

29.1.11 the amount of the forecast EV adjustment included in the forecast MAR;

29.1.12 the actual pass-through costs and recoverable costs calculated in accordance with Schedule H; and
29.1.13 any voluntary reduction in actual transmission revenue made by Transpower for the pricing year.

29.2 For the purposes of any disparity adjustments for calculating the ex-post economic gain or loss in clause 29.1, and for any disparity adjustments for calculating the opex incentive amount in clause 33.1-33.2, the forecast CPI that applied when the opex allowance and forecast opex were determined is:

29.2.1 for the disclosure year from 1 July 2020 to 30 June 2021, 1.90%;
29.2.2 for the disclosure year from 1 July 2021 to 30 June 2022, 2.10%;
29.2.3 for the disclosure year from 1 July 2022 to 30 June 2023, 2.00%;
29.2.4 for the disclosure year from 1 July 2023 to 30 June 2024, 2.00%; and
29.2.5 for the disclosure year from 1 July 2024 to 30 June 2025, 2.00%.

30. Transpower to propose update of forecast SMAR

30.1 Transpower must provide the following information when proposing an update of a forecast MAR and forecast SMAR for the purposes of clause 8.5:

30.1.1 an update of a forecast MAR and forecast SMAR for each remaining complete pricing year in RCP3, calculated in a manner consistent with the approach for calculating the forecast SMAR for the full period of RCP3, including, where applicable, to take account of the incremental revenue effect of:

(a) forecast major capex approved by the Commission in the most recently completed disclosure year;
(b) base capex approved by the Commission in the most recently completed disclosure year relating to one or more of the listed projects in Schedule I; and
(c) an updated forecast EV adjustment calculated for the forecast MAR in accordance with clause 32;

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

30.1.3 where applicable, a proposed updated summary of the forecast MAR and the forecast SMAR as set out in Schedule A;

30.1.4 a certificate accompanying the proposal in the form set out in Schedule L, signed by at least two directors of Transpower; and

30.1.5 be accompanied by an independent assurance report procured and prepared in accordance with clause 34.
for the purposes of clause 30.1.1, the calculation of the update of a forecast MAR used in calculating the update of the forecast SMAR must, where applicable, use:

(a) the approach and formulae specified in Schedule D;

(b) the forecast opening RAB value;

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

(d) the low incentive rate base capex allowance in accordance with Schedule C1, Column 7;

(e) the standard incentive rate base capex allowance in accordance with Schedule C2, Column 7;

(f) the WACC;

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

(h) the forecast regulatory tax allowance calculated:

(i) by applying the tax rules and corporate tax rate to the forecast regulatory profit/(loss) before tax in accordance with Part 2, Subpart 3 of the Transpower IM;

(ii) using the term credit spread differential allowance calculated in accordance with Part 3, Subpart 5 of the Transpower IM; and

(iii) using as the amount of forecast regulatory profit/(loss) before tax for the purpose of this calculation, the sum of:

(A) the forecast of the regulatory profit/(loss) before tax calculated using the calculation basis required for disclosure under the ID determination; and

(B) the forecast of the term credit spread differential allowance calculated in accordance with Part 3, Subpart 5 of the Transpower IM;

(i) the forecast EV adjustment amounts specified in clauses 32.1.1 to 32.1.5, adjusted, where applicable, in accordance with clauses 32.2 and 32.3;

(j) the forecast pass-through costs, being:
(i) for the disclosure year from 1 July 2020 to 30 June 2021, [16.2 million];
(ii) for the disclosure year from 1 July 2021 to 30 June 2022, [16.5 million];
(iii) for the disclosure year from 1 July 2022 to 30 June 2023, [16.8 million];
(iv) for the disclosure year from 1 July 2023 to 30 June 2024, [17.1 million]; and
(v) for the disclosure year from 1 July 2024 to 30 June 2025, [17.5 million];

(k) the forecast recoverable costs, being:

(i) for the disclosure year from 1 July 2020 to 30 June 2021, [30.7 million];
(ii) for the disclosure year from 1 July 2021 to 30 June 2022, [25.8 million];
(iii) for the disclosure year from 1 July 2022 to 30 June 2023, [18.3 million];
(iv) for the disclosure year from 1 July 2023 to 30 June 2024, [23.9 million]; and
(v) for the disclosure year from 1 July 2024 to 30 June 2025, [25.1 million]; and

(l) the opex allowance set out in clause 29.1.6.

30.3 The calculation of an update of the forecast SMAR, must, where applicable, use:

30.3.1 the update of the forecast MAR calculated in accordance with clause 30.2;

30.3.2 the conversion of the updated forecast MAR for each remaining complete pricing year in RCP3 to forecast SMAR calculated in accordance with clause 8.3, where the updated present value of the forecast SMAR for the remaining complete pricing years in RCP3 must equal the present value of the updated forecast MAR for the remaining complete pricing years in RCP3, determined using the WACC, and the forecast SMAR follows a trend equivalent to the IPP revenue growth rate; and

30.3.3 the IPP revenue growth rate for each pricing year of RCP3 as specified in clause 8.4.

Commented [A55]: Given that the IPP revenue growth rate is defined as a maximum, this should be:

...follows a trend no greater than the IPP revenue growth rate...

Commented [A56]: This is redundant as “IPP revenue growth rate” is a defined term and the definition refers to clause 8.4.
30.4 For the purposes of determining the revenue impact of major capex approved by the Commission or of base capex approved by the Commission relating to listed projects, Transpower must:

30.4.1 identify each major capex project approved by the Commission in the disclosure year if project assets are forecast to be commissioned during the period from 1 July 2020 to 30 June 2025;

30.4.2 identify each listed project for which base capex is approved by the Commission in the disclosure year if project assets are forecast to be commissioned during the period from 1 July 2020 to 30 June 2025; and

30.4.3 for each project identified in accordance with subclauses 30.4.1 and 30.4.2, separately detail:

(a) the forecast date, or dates, that project assets are forecast to be commissioned; and

(b) the incremental revenue impact of the forecast commissioning of project assets on each applicable future forecast SMAR and forecast MAR.

31. EV account summary

31.1 For the purposes of providing the information specified in clause 24.1.6 for the disclosure year, the updated summary of the EV account must show:

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

(a) the opening balance of the EV account;

(b) the calculation of interest at the post-tax estimate corresponding to WACC on the opening balance of the EV account;

(c) Transpower’s allocation of EV account entries to the respective HVAC and HVDC customers; and

(d) post-tax amounts included in calculating the forecast EV adjustments in respect of the closing EV account balance for the final disclosure year of RCP2;

31.1.2 the forecast EV account balance at the end of RCP3, taking into account forecast EV adjustments and interest at the post-tax estimate corresponding to WACC on the forecast opening EV account balance for each disclosure year;
31.1.3 the source of calculation of the EV account entries referred to in subclause 31.1.1(c) for:

(a) the ex-post economic gain or loss calculated for the final disclosure year of RCP2;
(b) the after-tax gain or loss in respect of an instrument that ceases to be an effective hedge for the final disclosure year of RCP2;
(c) the after-tax gain or loss in respect of a commodity instrument that is not an effective hedge for the final disclosure year of RCP2;
(d) the ex-post economic gain or loss for the disclosure year;
(e) the after-tax gain or loss on capital expenditure commitments;
(f) the after-tax economic gain or loss of a grid output adjustment, calculated in accordance with Schedule B, clause B2(1) of the Capex IM;
(g) the after-tax economic gain or loss of a base capex expenditure adjustment, calculated in accordance with Schedule B, clause B1(1) of the Capex IM;
(h) the after-tax economic gain or loss of a major capex expenditure and output adjustment, calculated in accordance with Schedule B, clause B3(1) of the Capex IM; and
(i) the after-tax amount of a major capex sunk costs adjustment, calculated in accordance with clause 3.3.7 of the Capex IM.

31.2 For the purposes of calculating EV account entries, Transpower must use:

31.2.1 the major capex incentive rate;
31.2.2 the base capex standard incentive rate;
31.2.3 the base capex low incentive rate;
31.2.4 the low incentive rate base capex allowance in accordance with Schedule C3, Column 7;
31.2.5 the standard incentive rate base capex allowance in accordance with Schedule C4, Column 7;
31.2.6 the forecast CPI used to determine the low incentive rate base capex allowance and the standard incentive rate base capex allowance in Schedule C3, Column 7 and Schedule C4, Column 7:
   (a) for the disclosure year from 1 July 2020 to 30 June 2021, 1.90%;
   (b) for the disclosure year from 1 July 2021 to 30 June 2022, 2.10%;
(c) for the disclosure year from 1 July 2022 to 30 June 2023, 2.00%;
(d) for the disclosure year from 1 July 2023 to 30 June 2024, 2.00%; and
(e) for the disclosure year from 1 July 2024 to 30 June 2025, 2.00%;

31.2.7 the forecast FX rate used to determine the low incentive rate base capex allowance and the standard incentive rate base capex allowance in Schedule C3, Column 7 and Schedule C4, Column 7, for the conversion of US dollars to NZ dollars:

(a) for the disclosure year from 1 July 2020 to 30 June 2021, 0.66;
(b) for the disclosure year from 1 July 2021 to 30 June 2022, 0.66;
(c) for the disclosure year from 1 July 2022 to 30 June 2023, 0.66;
(d) for the disclosure year from 1 July 2023 to 30 June 2024, 0.66; and
(e) for the disclosure year from 1 July 2024 to 30 June 2025, 0.66;

31.2.8 the forecast FX rate used to determine the low incentive rate base capex allowance and the standard incentive rate base capex allowance in Schedule C3, Column 7 and Schedule C4, Column 7 for the conversion of the following currencies to NZ dollars:

(a) Euro: for each disclosure year in RCP3, 0.50;
(b) British pound: for each disclosure year in RCP3, 0.47;
(c) Australian dollar: for each disclosure year in RCP3, 0.91;
(d) Japanese yen: for each disclosure year in RCP3, 73.40;
(e) Swedish kroner: for each disclosure year in RCP3, 5.35; and
(f) Canadian dollar: for each disclosure year in RCP3, 0.85; and

31.2.9 the amount of the standard incentive rate base capex allowance to which the forecast FX rate applies for the purposes of determining the standard incentive rate base capex allowance in Schedule C4, Column 7 is as set out in Table 5.1:
### Table 5.1: Amount of the standard incentive rate base capex allowance (NZD million) to which the forecast FX rate applies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>USD/NZD</td>
<td>16.1</td>
<td>14.7</td>
<td>9.0</td>
<td>7.0</td>
<td>6.1</td>
</tr>
<tr>
<td>EUR/NZD</td>
<td>3.9</td>
<td>3.4</td>
<td>3.9</td>
<td>3.4</td>
<td>3.0</td>
</tr>
<tr>
<td>GBP/NZD</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AUD/NZD</td>
<td>0.7</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>JPY/NZD</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>SEK/NZD</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
<td>0.9</td>
<td>1.2</td>
</tr>
<tr>
<td>CAD/NZD</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

#### 32. Forecast EV adjustment

32.1 For the purposes of calculating an update of the forecast MAR for a pricing year, and subject to clause 32.2, the forecast EV adjustment amounts applied in calculating the initial forecast MAR, in respect of the closing EV account balance for the final disclosure year of RCP2, are:

32.1.1 for the disclosure year from 1 July 2020 to 30 June 2021, [$-21.0 million];

32.1.2 for the disclosure year from 1 July 2021 to 30 June 2022, [$-21.0 million];

32.1.3 for the disclosure year from 1 July 2022 to 30 June 2023, [$-21.0 million];

32.1.4 for the disclosure year from 1 July 2023 to 30 June 2024, [$-21.0 million];

32.1.5 for the disclosure year from 1 July 2024 to 30 June 2025, [$-21.0 million]; and

32.1.6 a tax gross-up amount calculated at the corporate tax rate, and applying the tax rules where applicable, in respect of all after-tax amounts calculated in subclauses 32.1.1 to 32.1.5 in order to express the forecast EV adjustment amounts on a pre-tax basis in the forecast MAR building block inputs.
32.2 For the purpose of calculating an update of the forecast MAR for a pricing year under a reconsideration of the price path under clause 3.7.5(3) of the Transpower IM to account for a large buildup in EV account balance, the forecast EV adjustment amounts in clause 32.1 are to be adjusted so that, taking into account interest, if interest was accrued at the RCP3 WACC rate:

32.2.1 the amounts of each forecast EV adjustment for the remaining complete pricing years of RCP3 are equal; and

32.2.2 if the same annual forecast EV adjustment amount as in clause 32.2.1 was applied for each of the five pricing years following the end of RCP3, the forecast balance of the EV account would be zero at the end of that period.

32.3 For the purposes of clause 32.2, where forecast EV adjustments are updated, a tax gross-up amount is calculated, consistent with clause 32.1.6.

33. Forecast opex for the Incremental rolling incentive scheme (IRIS)

33.1 For the calculation of the opex incentive amount, the amount of forecast opex specified by the Commission for IRIS calculations is specified in clause 33.2, as adjusted for any disparity between the forecast CPI that applied when the forecast opex was initially determined and the CPI.

33.2 For the purposes of the calculation of the opex incentive amount, the amount of forecast opex, including operating lease payments otherwise capitalised in accordance with the Transpower IM, specified by the Commission is, for a disclosure year, as follows:

33.2.1 for the disclosure year from 1 July 2020 to 30 June 2021, $281.2 million;

33.2.2 for the disclosure year from 1 July 2021 to 30 June 2022, $285.9 million;

33.2.3 for the disclosure year from 1 July 2022 to 30 June 2023, $296.0 million;

33.2.4 for the disclosure year from 1 July 2023 to 30 June 2024, $305.6 million; and

33.2.5 for the disclosure year from 1 July 2024 to 30 June 2025, $306.2 million.

33.3 For the purposes of clause 33.1 and any disparity adjustments in calculating the opex incentive amount, the forecast CPI that applied when the forecast opex was determined is the same as that set out in clause 29.2.
34. Independent assurance report

34.1 Transpower must procure an independent assurance report by an assurance auditor in respect of the annual compliance statement or a proposal to update a forecast MAR and forecast SMAR that:

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

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

34.2 The independent assurance report must state:

34.2.1 that it has been prepared in accordance with Standard on Assurance Engagements 3100 – Assurance Engagements on Compliance (SAE 3100 (Revised)) and International Standard on Assurance Engagements (New Zealand) 3000 (ISAE (NZ) 3000 (Revised)) or their successor standards;

34.2.2 the work done by the assurance auditor;

34.2.3 the scope and limitations of the assurance engagement;

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

34.2.5 whether the assurance auditor has obtained sufficient recorded information and explanations that it required and, if not, the information and explanations not obtained;

34.2.6 whether, in the assurance auditor’s opinion, as far as appears from an examination of them, proper records to enable the complete and accurate compilation of the annual compliance statement or the proposal to update a forecast MAR and forecast SMAR have been kept by Transpower and, if not, the records not so kept;

34.2.7 whether in the assurance auditor’s opinion, as far as appears from the examination, the information used in the preparation of the annual compliance statement or the proposal to update a forecast MAR and forecast SMAR has, where applicable, been properly extracted from Transpower’s accounting and other records, sourced from its financial and non-financial systems; and

34.2.8 whether in the assurance auditor’s opinion, Transpower has complied, in all material respects, with this determination in preparing the annual compliance statement or the proposal to update a forecast MAR and forecast SMAR and, if not, the respects in which it has not done so.
35. Exemptions

35.1 The Commission may at any time, by way of written notice to Transpower:

35.1.1 exempt Transpower from any of the information disclosure requirements contained in clauses 23.2.1(b), 25, 26, and 28.1 to 28.3 of this determination, for a period and on such terms and conditions as the Commission specifies in the notice; and

35.1.2 amend or revoke any such exemption.

Commented [A57]: The exemption power should apply to any of the information disclosure requirements in clauses 23.2, 24 to 26, and 28.
### Schedule A: Summary of forecast MAR and forecast SMAR

<table>
<thead>
<tr>
<th>Forecast MAR applied to pricing years in RCP3 ending</th>
<th>Forecast MAR is calculated based on building block values for the disclosure year ending</th>
<th>Initial determined value of forecast MAR for pricing year</th>
<th>Incremental update to forecast MAR determined in November 2020</th>
<th>Incremental update to forecast MAR determined in November 2021</th>
<th>Incremental update to forecast MAR determined in November 2022</th>
<th>Incremental update to forecast MAR determined in November 2023</th>
<th>Total forecast MAR applicable to the pricing year (sum of amounts in columns 3 to 7)</th>
<th>Forecast SMAR applicable to the pricing years in RCP3</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 March 2021 (Year 1)</td>
<td>30 June 2021</td>
<td>[$834.6 million]</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>[$834.6 million]</td>
<td>[$831.6 million]</td>
</tr>
<tr>
<td>31 March 2022 (Year 2)</td>
<td>30 June 2022</td>
<td>[$836.6 million]</td>
<td>$X.X million</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>[$836.6 million]</td>
<td>[$839.8 million]</td>
</tr>
<tr>
<td>31 March 2023 (Year 3)</td>
<td>30 June 2023</td>
<td>[$840.3 million]</td>
<td>$XX million</td>
<td>$X.X million</td>
<td>N/A</td>
<td>N/A</td>
<td>[$840.3 million]</td>
<td>[$848.2 million]</td>
</tr>
<tr>
<td>31 March 2024 (Year 4)</td>
<td>30 June 2024</td>
<td>[$861.9 million]</td>
<td>$X.X million</td>
<td>$X.X million</td>
<td>$X.X million</td>
<td>N/A</td>
<td>[$861.9 million]</td>
<td>[$856.8 million]</td>
</tr>
<tr>
<td>31 March 2025 (Year 5)</td>
<td>30 June 2025</td>
<td>[$868.8 million]</td>
<td>$X.X million</td>
<td>$X.X million</td>
<td>$X.X million</td>
<td>$X.X million</td>
<td>[$868.8 million]</td>
<td>[$865.4 million]</td>
</tr>
</tbody>
</table>
### Schedule B: EV account summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Formula</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening EV account balance</td>
<td>A</td>
<td>Closing balance in the EV account for the previous disclosure year</td>
</tr>
<tr>
<td>Post-tax WACC</td>
<td>B</td>
<td>The post-tax estimate corresponding to WACC</td>
</tr>
<tr>
<td>Interest on opening EV account balance</td>
<td>( C = A \times B )</td>
<td>Opening EV account balance multiplied by the post-tax estimate corresponding to WACC</td>
</tr>
<tr>
<td>EV account entries</td>
<td>D</td>
<td>The EV account entries calculated in accordance with clause 31.2</td>
</tr>
<tr>
<td>Post-tax amount included in calculating the forecast EV adjustment for the disclosure year in respect of the closing EV account balance for the final disclosure year of RCP2</td>
<td>E</td>
<td>Amount for the disclosure year in RCP3 in respect of the forecast closing post-tax EV account balance for the final disclosure year of RCP2, as set out in clause 32.1</td>
</tr>
<tr>
<td>Closing EV account balance</td>
<td>( F = A + C + D - E )</td>
<td>Opening EV account balance plus interest on opening EV account balance, plus EV account entries, minus forecast EV adjustment</td>
</tr>
</tbody>
</table>
Schedule C1: Approved low incentive rate base capex summary – commissioned basis
(including capitalised operating leases)

<table>
<thead>
<tr>
<th>Disclosure year ending</th>
<th>Value of low incentive rate base capex allowances as determined 29 August 2019</th>
<th>Incremental approved low incentive rate listed project base capex determined in November 2020</th>
<th>Incremental approved low incentive rate listed project base capex determined in November 2021</th>
<th>Incremental approved low incentive rate listed project base capex determined in November 2022</th>
<th>Incremental approved low incentive rate listed project base capex determined in November 2023</th>
<th>Approved low incentive rate base capex allowances for purposes of forecast MAR in the disclosure year (sum of amounts in columns 2 to 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 June 2021</td>
<td>$0 million</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$0 million</td>
</tr>
<tr>
<td>30 June 2022</td>
<td>$0 million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$0 million</td>
</tr>
<tr>
<td>30 June 2023</td>
<td>$0 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>N/A</td>
<td>$0 million</td>
</tr>
<tr>
<td>30 June 2024</td>
<td>$0 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>$0 million</td>
</tr>
<tr>
<td>30 June 2025</td>
<td>$0 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$0 million</td>
</tr>
</tbody>
</table>
## Schedule C2: Approved standard incentive rate base capex summary – commissioned basis

(including capitalised operating leases)

<table>
<thead>
<tr>
<th>Disclosure year ending</th>
<th>Value of standard incentive rate base capex allowance as determined 29 August 2019</th>
<th>Incremental approved standard incentive rate listed project base capex determined in November 2020</th>
<th>Incremental approved standard incentive rate listed project base capex determined in November 2021</th>
<th>Incremental approved standard incentive rate listed project base capex determined in November 2022</th>
<th>Incremental approved standard incentive rate listed project base capex determined in November 2023</th>
<th>Approved standard incentive rate base capex allowance for purposes of forecast MAR in the disclosure year (sum of amounts in columns 2 to 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 June 2021</td>
<td>$222.9 million</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$222.9 million</td>
</tr>
<tr>
<td>30 June 2022</td>
<td>$277.3 million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$277.3 million</td>
</tr>
<tr>
<td>30 June 2023</td>
<td>$273.9 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>N/A</td>
<td>$273.9 million</td>
</tr>
<tr>
<td>30 June 2024</td>
<td>$280.0 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>$280.0 million</td>
</tr>
<tr>
<td>30 June 2025</td>
<td>$300.2 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$300.2 million</td>
</tr>
</tbody>
</table>

Commented [A58]: The numbers in Schedule C2 should be in Schedule C4 and vice versa.
### Schedule C3: Approved low incentive rate base capex summary – expenditure basis
(excluding capitalised operating leases)

<table>
<thead>
<tr>
<th>Disclosure year ending</th>
<th>Value of low incentive rate base capex allowances as determined 29 August 2019</th>
<th>Incremental approved low incentive rate listed project base capex determined in November 2020</th>
<th>Incremental approved low incentive rate listed project base capex determined in November 2021</th>
<th>Incremental approved low incentive rate listed project base capex determined in November 2022</th>
<th>Incremental approved low incentive rate listed project base capex determined in November 2023</th>
<th>Approved base capex for purposes of base capex expenditure adjustments in the disclosure year (sum of amounts in columns 2 to 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 June 2021</td>
<td>$0 million</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$0 million</td>
</tr>
<tr>
<td>30 June 2022</td>
<td>$0 million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$0 million</td>
</tr>
<tr>
<td>30 June 2023</td>
<td>$0 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>N/A</td>
<td>$0 million</td>
</tr>
<tr>
<td>30 June 2024</td>
<td>$0 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>$0 million</td>
</tr>
<tr>
<td>30 June 2025</td>
<td>$0 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$0 million</td>
</tr>
</tbody>
</table>
### Schedule C4: Approved standard incentive rate base capex summary - expenditure basis (excluding capitalised operating leases)

<table>
<thead>
<tr>
<th>Disclosure year ending</th>
<th>Value of standard incentive rate base capex allowance as determined 29 August 2019</th>
<th>Incremental approved listed project base capex determined in November 2020</th>
<th>Incremental approved listed project base capex determined in November 2021</th>
<th>Incremental approved listed project base capex determined in November 2022</th>
<th>Incremental approved listed project base capex determined in November 2023</th>
<th>Approved base capex for purposes of base capex expenditure adjustments in the disclosure year (sum of amounts in columns 2 to 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 June 2021</td>
<td>$206.7 million</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$206.7 million</td>
</tr>
<tr>
<td>30 June 2022</td>
<td>$266.8 million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>$266.8 million</td>
</tr>
<tr>
<td>30 June 2023</td>
<td>$303.3 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>N/A</td>
<td>$303.3 million</td>
</tr>
<tr>
<td>30 June 2024</td>
<td>$274.8 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>N/A</td>
<td>$274.8 million</td>
</tr>
<tr>
<td>30 June 2025</td>
<td>$347.2 million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$XX.X million</td>
<td>$347.2 million</td>
</tr>
</tbody>
</table>

Commented [A59]: The numbers in Schedule C4 should be in Schedule C2 and vice versa.
### Schedule D: Forecast MAR building blocks calculation

<table>
<thead>
<tr>
<th>FORECAST MAR BUILDING BLOCK</th>
<th>DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED</th>
<th>FORMULA FOR FORECAST INCOME/EXPENDITURE/OTHER NOMINAL VALUES</th>
<th>CASH FLOW TIMING FACTOR TO APPLY TO FORECAST NOMINAL VALUE INPUT</th>
<th>FORECAST MAR BUILDING BLOCK VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Column 1]</td>
<td>[Column 2]</td>
<td>[Column 3]</td>
<td>[Column 4]</td>
<td>[Column 5]</td>
</tr>
<tr>
<td>WACC</td>
<td>WACC</td>
<td>A1</td>
<td>( \frac{\text{WACC}}{A1} )</td>
<td>( \frac{\text{WACC}}{A1} )</td>
</tr>
<tr>
<td>WACC return on forecast opening RAB value</td>
<td>Forecast sum of opening RAB value for the disclosure year</td>
<td>B</td>
<td>( \frac{A1 \times \left(1 + A1\right)^{163/365}}{\left(1 + A1\right)^{163/365}} )</td>
<td>( \frac{A1 \times \left(1 + A1\right)^{163/365}}{\left(1 + A1\right)^{163/365}} )</td>
</tr>
<tr>
<td>WACC return on forecast VCA(_{\text{JUL}})</td>
<td>Forecast sum of value of commissioned asset for the month in the disclosure year</td>
<td>C1</td>
<td>( \frac{\left(1 + A1\right)^{349.5/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
<td>( \frac{\left(1 + A1\right)^{349.5/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
</tr>
<tr>
<td>WACC return on forecast VCA(_{\text{AUG}})</td>
<td></td>
<td>C2</td>
<td>( \frac{\left(1 + A1\right)^{318.5/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
<td>( \frac{\left(1 + A1\right)^{318.5/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
</tr>
<tr>
<td>WACC return on forecast VCA(_{\text{SEP}})</td>
<td></td>
<td>C3</td>
<td>( \frac{\left(1 + A1\right)^{288/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
<td>( \frac{\left(1 + A1\right)^{288/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
</tr>
<tr>
<td>WACC return on forecast VCA(_{\text{OCT}})</td>
<td></td>
<td>C4</td>
<td>( \frac{\left(1 + A1\right)^{257.5/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
<td>( \frac{\left(1 + A1\right)^{257.5/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
</tr>
<tr>
<td>WACC return on forecast VCA(_{\text{NOV}})</td>
<td></td>
<td>C5</td>
<td>( \frac{\left(1 + A1\right)^{227/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
<td>( \frac{\left(1 + A1\right)^{227/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
</tr>
<tr>
<td>WACC return on forecast VCA(_{\text{DEC}})</td>
<td></td>
<td>C6</td>
<td>( \frac{\left(1 + A1\right)^{196.5/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
<td>( \frac{\left(1 + A1\right)^{196.5/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
</tr>
<tr>
<td>WACC return on forecast VCA(_{\text{JAN}})</td>
<td></td>
<td>C7</td>
<td>( \frac{\left(1 + A1\right)^{165.5/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
<td>( \frac{\left(1 + A1\right)^{165.5/365} - 1}{\left(1 + A1\right)^{163/365}} )</td>
</tr>
<tr>
<td>FORECAST MAR BUILDING BLOCK</td>
<td>DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED</td>
<td>FORMULA FOR FORECAST INCOME/EXPENDITURE/OTHER NOMINAL VALUES</td>
<td>CASH FLOW TIMING FACTOR TO APPLY TO FORECAST NOMINAL VALUE INPUT</td>
<td>FORECAST MAR BUILDING BLOCK VALUE</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------</td>
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</tr>
<tr>
<td>[Column 1]</td>
<td>[Column 2]</td>
<td>[Column 3]</td>
<td>[Column 4]</td>
<td>[Column 5]</td>
</tr>
<tr>
<td>WACC return on forecast VCA_{FEB}</td>
<td>Forecast sum of value of commissioned asset for the month in the disclosure year</td>
<td>C8</td>
<td>$((1 + A1)^{136/365} - 1) / (1 + A1)^{163/365}$</td>
<td>C8 x $((1 + A1)^{136/365} - 1) / (1 + A1)^{163/365}$</td>
</tr>
<tr>
<td>WACC return on forecast VCA_{MAR}</td>
<td></td>
<td>C9</td>
<td>$((1 + A1)^{106.5/365} - 1) / (1 + A1)^{163/365}$</td>
<td>C9 x $((1 + A1)^{106.5/365} - 1) / (1 + A1)^{163/365}$</td>
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<tr>
<td>WACC return on forecast VCA_{APL}</td>
<td></td>
<td>C10</td>
<td>$((1 + A1)^{76/365} - 1) / (1 + A1)^{163/365}$</td>
<td>C10 x $((1 + A1)^{76/365} - 1) / (1 + A1)^{163/365}$</td>
</tr>
<tr>
<td>WACC return on forecast VCA_{MAY}</td>
<td></td>
<td>C11</td>
<td>$((1 + A1)^{45.5/365} - 1) / (1 + A1)^{163/365}$</td>
<td>C11 x $((1 + A1)^{45.5/365} - 1) / (1 + A1)^{163/365}$</td>
</tr>
<tr>
<td>WACC return on forecast VCA_{JUN}</td>
<td></td>
<td>C12</td>
<td>$((1 + A1)^{15/365} - 1) / (1 + A1)^{163/365}$</td>
<td>C12 x $((1 + A1)^{15/365} - 1) / (1 + A1)^{163/365}$</td>
</tr>
<tr>
<td>Total forecast capital charge</td>
<td>Sum of forecast MAR building block values for formulas B through C12</td>
<td></td>
<td></td>
<td>Sum D = Sum of forecast MAR building block values B to C12</td>
</tr>
<tr>
<td>FORECAST MAR BUILDING BLOCK</td>
<td>DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED</td>
<td>FORMULA FOR FORECAST INCOME/EXPENDITURE/OTHER NOMINAL VALUES</td>
<td>CASH FLOW TIMING FACTOR TO APPLY TO FORECAST NOMINAL VALUE INPUT</td>
<td>FORECAST MAR BUILDING BLOCK VALUE</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Forecast depreciation</td>
<td>Forecast depreciation</td>
<td>E ( \frac{1}{(1 + A1)^{1/365}} )</td>
<td>E ( \frac{1}{(1 + A1)^{1/365}} )</td>
<td></td>
</tr>
<tr>
<td>Operating expenditure</td>
<td>Opex allowance as specified in clause 29.1.6.</td>
<td>F ( (1 + A1)^{1/365} )</td>
<td>F ( (1 + A1)^{1/365} )</td>
<td></td>
</tr>
<tr>
<td>Forecast tax</td>
<td>Forecast regulatory tax allowance, calculated in accordance with clause 30.1.2(h)</td>
<td>G ( (1 + A1)^{1/365} )</td>
<td>G ( (1 + A1)^{1/365} )</td>
<td></td>
</tr>
<tr>
<td>Forecast TCSD</td>
<td>Forecast term credit spread differential allowance, calculated in accordance with Part 3, Subpart 5 of the Transpower IM</td>
<td>H ( (1 + A1)^{1/365} )</td>
<td>H ( (1 + A1)^{1/365} )</td>
<td></td>
</tr>
<tr>
<td>Forecast EV adjustment</td>
<td>Forecast EV adjustment, as specified in clauses 32.1.1 to 32.3, including a tax gross up calculated at the corporate tax rate</td>
<td>I ( \frac{1}{(1 + A1)^{1/365}} )</td>
<td>I ( \frac{1}{(1 + A1)^{1/365}} )</td>
<td></td>
</tr>
<tr>
<td>FORECAST MAR BUILDING BLOCK</td>
<td>DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED</td>
<td>FORMULA FOR FORECAST INCOME/EXPENDITURE/OTHER NOMINAL VALUES</td>
<td>CASH FLOW TIMING FACTOR TO APPLY TO FORECAST NOMINAL VALUE INPUT</td>
<td>FORECAST MAR BUILDING BLOCK VALUE</td>
</tr>
<tr>
<td>-----------------------------</td>
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</tr>
<tr>
<td>[Column 1]</td>
<td>[Column 2]</td>
<td>[Column 3]</td>
<td>[Column 4]</td>
<td>[Column 5]</td>
</tr>
<tr>
<td>Forecast pass-through costs</td>
<td>Forecast pass-through costs in accordance with Part 3, Subpart 1 of the Transpower IM, as specified in clauses 30.1.2(j)</td>
<td>J</td>
<td>$(1 + A1)^{19/365}$</td>
<td>$L \times (1 + A1)^{19/365}$</td>
</tr>
<tr>
<td>Forecast recoverable costs</td>
<td>Forecast recoverable costs in accordance with Part 3, Subpart 1 of the Transpower IM, as specified in clauses 30.1.2(k)</td>
<td>K</td>
<td>$(1 + A1)^{19/365}$</td>
<td>$M \times (1 + A1)^{19/365}$</td>
</tr>
<tr>
<td>TOTAL FORECAST MAR INCLUSIVE OF FORECAST PASS-THROUGH COSTS AND FORECAST RECOVERABLE COSTS</td>
<td>Sum of forecast MAR building block values</td>
<td></td>
<td></td>
<td>Sum $L = \text{Sum} \ D + \text{sum of forecast MAR building block values} \ E \text{ to } K$</td>
</tr>
</tbody>
</table>

Commented [A60]: This cross-reference should be to clause 30.2(k).
### Schedule E: Wash-up building blocks calculation

<table>
<thead>
<tr>
<th>WASH-UP BUILDING BLOCK</th>
<th>DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED</th>
<th>FORMULA FOR INCOME/EXPENDITURE/OFFER NOMINAL VALUES</th>
<th>CASH FLOW TIMING FACTOR TO APPLY TO NOMINAL VALUE INPUT</th>
<th>WASH-UP VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Column 1]</td>
<td>[Column 2]</td>
<td>[Column 3]</td>
<td>[Column 4]</td>
<td>[Column 5]</td>
</tr>
<tr>
<td>WACC</td>
<td>WACC</td>
<td>A1</td>
<td>WACC = A1</td>
<td></td>
</tr>
<tr>
<td>WACC return on opening RAB value</td>
<td>Sum of opening RAB value for the disclosure year</td>
<td>B</td>
<td>A1</td>
<td>B x A1</td>
</tr>
<tr>
<td>WACC return on VCA_JUL</td>
<td>Sum of value of commissioned asset for the month in the disclosure year</td>
<td>C1</td>
<td>((1 + A1)^{349.5/365} - 1)</td>
<td>C1 x ((1 + A1)^{349.5/365} - 1)</td>
</tr>
<tr>
<td>WACC return on VCA_AUG</td>
<td></td>
<td>C2</td>
<td>((1 + A1)^{318.5/365} - 1)</td>
<td>C2 x ((1 + A1)^{318.5/365} - 1)</td>
</tr>
<tr>
<td>WACC return on VCA_SEP</td>
<td></td>
<td>C3</td>
<td>((1 + A1)^{308/365} - 1)</td>
<td>C3 x ((1 + A1)^{308/365} - 1)</td>
</tr>
<tr>
<td>WACC return on VCA_OCT</td>
<td></td>
<td>C4</td>
<td>((1 + A1)^{257.5/365} - 1)</td>
<td>C4 x ((1 + A1)^{257.5/365} - 1)</td>
</tr>
<tr>
<td>WACC return on VCA_NOV</td>
<td></td>
<td>C5</td>
<td>((1 + A1)^{227/365} - 1)</td>
<td>C5 x ((1 + A1)^{227/365} - 1)</td>
</tr>
<tr>
<td>WACC return on VCA_DEC</td>
<td></td>
<td>C6</td>
<td>((1 + A1)^{196.5/365} - 1)</td>
<td>C6 x ((1 + A1)^{196.5/365} - 1)</td>
</tr>
<tr>
<td>WACC return on VCA_JAN</td>
<td></td>
<td>C7</td>
<td>((1 + A1)^{165.5/365} - 1)</td>
<td>C7 x ((1 + A1)^{165.5/365} - 1)</td>
</tr>
<tr>
<td>WACC return on VCA_FEB</td>
<td></td>
<td>C8</td>
<td>((1 + A1)^{136/365} - 1)</td>
<td>C8 x ((1 + A1)^{136/365} - 1)</td>
</tr>
<tr>
<td>Wash-up Building Block</td>
<td>Description of Nominal Value Input to be Applied</td>
<td>Formula for Income/Expenditure/Other Nominal Values</td>
<td>Cash Flow Timing Factor to Apply to Nominal Value Input</td>
<td>Wash-up Value</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>[Column 1]</td>
<td>[Column 2]</td>
<td>[Column 3]</td>
<td>[Column 4]</td>
<td>[Column 5]</td>
</tr>
<tr>
<td>WACC Return on VCAMAR</td>
<td>Sum of value of commissioned asset for the month in the disclosure year</td>
<td>C9</td>
<td>$(1 + A1)^{106.5/365} - 1$</td>
<td>C9 x $(1 + A1)^{106.5/365} - 1$</td>
</tr>
<tr>
<td>WACC Return on VCAAPL</td>
<td>Sum of the opening RAB value of lost assets in the disclosure year</td>
<td>C10</td>
<td>$(1 + A1)^{76/365} - 1$</td>
<td>C10 x $(1 + A1)^{76/365} - 1$</td>
</tr>
<tr>
<td>WACC Return on VCAAV</td>
<td>Sum of the value of found asset of found assets in the disclosure year</td>
<td>C11</td>
<td>$(1 + A1)^{45.5/365} - 1$</td>
<td>C11 x $(1 + A1)^{45.5/365} - 1$</td>
</tr>
<tr>
<td>WACC Return on VCAJUN</td>
<td>Sum of opening RAB value of disposed assets in the disclosure year</td>
<td>C12</td>
<td>$(1 + A1)^{15/365} - 1$</td>
<td>C12 x $(1 + A1)^{15/365} - 1$</td>
</tr>
<tr>
<td>WACC Return on lost assets</td>
<td>Sum of the opening RAB value of lost assets in the disclosure year</td>
<td>D</td>
<td>$1 - (1 + A1)^{182/365}$</td>
<td>D x $(1 - (1 + A1)^{182/365})$</td>
</tr>
<tr>
<td>WACC Return on found assets</td>
<td>Sum of the value of found asset of found assets in the disclosure year</td>
<td>E</td>
<td>$(1 + A1)^{182/365} - 1$</td>
<td>E x $(1 + A1)^{182/365} - 1$</td>
</tr>
<tr>
<td>WACC Return on disposed assets</td>
<td>Sum of opening RAB value of disposed assets in the disclosure year</td>
<td>F</td>
<td>$1 - (1 + A1)^{182/365}$</td>
<td>F x $(1 - (1 + A1)^{182/365})$</td>
</tr>
<tr>
<td>Total capital charge</td>
<td>Sum of wash-up values for formulas B through F</td>
<td></td>
<td></td>
<td>Sum G = sum of wash-up values B to F</td>
</tr>
<tr>
<td>WASH-UP BUILDING BLOCK</td>
<td>DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED</td>
<td>FORMULA FOR INCOME/ EXPENDITURE/ OTHER NOMINAL VALUES</td>
<td>CASH FLOW TIMING FACTOR TO APPLY TO NOMINAL VALUE INPUT</td>
<td>WASH-UP VALUE</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>[Column 1]</td>
<td>[Column 2]</td>
<td>[Column 3]</td>
<td>[Column 4]</td>
<td>[Column 5]</td>
</tr>
<tr>
<td>Transmission revenues received</td>
<td>Sum of actual transmission revenue converted to a disclosure year value in accordance with clause 29.1.12(a)</td>
<td>H</td>
<td>(1 + A1)(^{182/365})</td>
<td>H \times (1 + A1)(^{182/365})</td>
</tr>
<tr>
<td>Transpower adjustment to recognise voluntarily foregone revenues</td>
<td>Amount of electricity transmission revenue permanently foregone by Transpower</td>
<td>J</td>
<td>(1 + A1)(^{182/365})</td>
<td>J \times (1 + A1)(^{182/365})</td>
</tr>
<tr>
<td>Other regulated income</td>
<td>Sum of other regulated income</td>
<td>K</td>
<td>(1 + A1)(^{182/365})</td>
<td>K \times (1 + A1)(^{182/365})</td>
</tr>
<tr>
<td>Gain/(loss) on disposal of assets</td>
<td>Sum of disposal proceeds less opening RAB value for disposed assets</td>
<td>L</td>
<td>(1 + A1)(^{182/365})</td>
<td>L \times (1 + A1)(^{182/365})</td>
</tr>
<tr>
<td>Total income</td>
<td>Sum of wash-up values for formulas H to L</td>
<td></td>
<td></td>
<td>Sum M = sum of wash-up values H, J, K and L</td>
</tr>
</tbody>
</table>

Commented [A61]: This cross-reference is incorrect. Perhaps it should be clause 29.1.10(a).
<table>
<thead>
<tr>
<th>WASH-UP BUILDING BLOCK</th>
<th>DESCRIPTION OF NOMINAL VALUE INPUT TO BE APPLIED</th>
<th>FORMULA FOR INCOME/EXPENDITURE/OTHER NOMINAL VALUES</th>
<th>CASH FLOW TIMING FACTOR TO APPLY TO NOMINAL VALUE INPUT</th>
<th>WASH-UP VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Column 1]</td>
<td>[Column 2]</td>
<td>[Column 3]</td>
<td>[Column 4]</td>
<td>[Column 5]</td>
</tr>
<tr>
<td>Operating expenditure</td>
<td>Opex allowance as specified in clause 29.1.6, and as adjusted for any disparity between the forecast CPI specified in clause 29.2 and actual CPI</td>
<td>N</td>
<td>((1 + A1)^{182/365})</td>
<td>(N \times (1 + A1)^{182/365})</td>
</tr>
<tr>
<td>Depreciation</td>
<td>Depreciation (excluding depreciation on disposed assets)</td>
<td>O</td>
<td></td>
<td>O</td>
</tr>
<tr>
<td>TCSD</td>
<td>The term credit spread differential allowance, calculated in accordance with Part 3, Subpart 5 of the Transpower IM</td>
<td>P</td>
<td>((1 + A1)^{182/365})</td>
<td>(P \times (1 + A1)^{182/365})</td>
</tr>
<tr>
<td>Pass-through costs and recoverable costs</td>
<td>Pass-through costs and recoverable costs as set out in Schedule H, Formulae F and M.</td>
<td>Q</td>
<td>((1 + A1)^{182/365})</td>
<td>(Q \times (1 + A1)^{182/365})</td>
</tr>
<tr>
<td>Net operating profit/(loss) before tax</td>
<td>Sum of wash-up values for formulas M through P</td>
<td></td>
<td>Sum (R = \text{Sum M, less wash-up values N to Q})</td>
<td></td>
</tr>
<tr>
<td>Tax</td>
<td>The regulatory tax allowance calculated in accordance with clause 29.1.10</td>
<td>S</td>
<td>((1 + A1)^{182/365})</td>
<td>(S \times (1 + A1)^{182/365})</td>
</tr>
<tr>
<td>Net operating profit/(loss) after tax</td>
<td>Sum of wash-up values for formulas R and S</td>
<td></td>
<td>Sum (T = \text{Sum R, less wash-up value S})</td>
<td></td>
</tr>
</tbody>
</table>

Commented [A62]: This cross-reference should be to clause 29.1.8.
### AFTER-TAX EX-POST ECONOMIC GAIN OR LOSS
Difference between the capital charge (Sum G) and the net operating profit/(loss) after tax (Sum T)

### Forecast EV adjustment included in forecast MAR
Adjustment to recognise the forecast EV adjustment for the disclosure year, before tax gross up, as applied in setting the forecast MAR for the relevant pricing year

### EV ACCOUNT ENTRY
This is the ex-post economic gain or loss adjusted for the forecast EV adjustment applied in setting the forecast MAR for the relevant pricing year, and is an EV account entry

<table>
<thead>
<tr>
<th></th>
<th>Difference</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>AFTER-TAX EX-POST ECONOMIC GAIN OR LOSS</td>
<td>Difference U = Sum G less Sum T</td>
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<td></td>
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<tr>
<td>Forecast EV adjustment included in forecast MAR</td>
<td>V</td>
<td>V</td>
<td></td>
</tr>
<tr>
<td>EV ACCOUNT ENTRY</td>
<td>Difference W = Difference U plus value V</td>
<td></td>
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</table>
### Schedule F: Point of service sub-categories – Measures of grid performance GP1 and GP2 points of service

<table>
<thead>
<tr>
<th>RCP3 Sub-Category</th>
<th>Measure reference</th>
<th>Point of service</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>N security material economic consequence</td>
<td>GP1D and GP2D</td>
<td>ABY011_S1</td>
<td>ALPE</td>
</tr>
<tr>
<td>N-1 security high economic consequence</td>
<td>GP1A and GP2A</td>
<td>ALB033_S1</td>
<td>VECT</td>
</tr>
<tr>
<td>N-1 security high economic consequence</td>
<td>GP1A and GP2A</td>
<td>ALB110_S1</td>
<td>VECT</td>
</tr>
<tr>
<td>N security material economic consequence</td>
<td>GP1D and GP2D</td>
<td>APS011_S1</td>
<td>ORON</td>
</tr>
<tr>
<td>N security generator</td>
<td>GP1F and GP2F</td>
<td>ALB033_S1</td>
<td>VECT</td>
</tr>
<tr>
<td>N security generator</td>
<td>GP1F and GP2F</td>
<td>ARG110_I1</td>
<td>TRUS</td>
</tr>
<tr>
<td>N-1 security generator</td>
<td>GP1E and GP2E</td>
<td>ARII10_I1</td>
<td>MRPL</td>
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<tr>
<td>N-1 security material economic consequence</td>
<td>GP1B and GP2B</td>
<td>ASB033_S1</td>
<td>EASH</td>
</tr>
<tr>
<td>N-1 security high economic consequence</td>
<td>GP1A and GP2A</td>
<td>ASB066_S1_S2</td>
<td>EASH</td>
</tr>
<tr>
<td>N-1 security material economic consequence</td>
<td>GP1B and GP2B</td>
<td>ASY011_S1</td>
<td>MPOW</td>
</tr>
<tr>
<td>N-1 security generator</td>
<td>GP1E and GP2E</td>
<td>ATI220_I1</td>
<td>MRPL</td>
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<tr>
<td>N security material economic consequence</td>
<td>GP1D and GP2D</td>
<td>ATU110_S1</td>
<td>WPOW</td>
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<td>N-1 security generator</td>
<td>GP1E and GP2E</td>
<td>AVI220_I1</td>
<td>MPOW</td>
</tr>
<tr>
<td>N-1 security material economic consequence</td>
<td>GP1B and GP2B</td>
<td>BAL033_S1</td>
<td>OTNT</td>
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<td>N-1 security material economic consequence</td>
<td>GP1B and GP2B</td>
<td>BDE011_S1</td>
<td>RAYN</td>
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<td>N-1 security generator</td>
<td>GP1E and GP2E</td>
<td>BEN220_I1</td>
<td>RAYN</td>
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<td>GP1A and GP2A</td>
<td>BNL033_S1</td>
<td>MARL</td>
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<td>N-1 security material economic consequence</td>
<td>GP1B and GP2B</td>
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<td>POCO</td>
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<td>N-1 security high economic consequence</td>
<td>GP1A and GP2A</td>
<td>BOB110_S1</td>
<td>POCO</td>
</tr>
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<td>N security material economic consequence</td>
<td>GP1D and GP2D</td>
<td>BPT110_S1</td>
<td>TRUS</td>
</tr>
<tr>
<td>N-1 security high economic consequence</td>
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## Schedule G: Quality standards - HVAC assets for asset performance measure AP2

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<td>Rangipo–Tangiwhai 220 kV Circuit 1</td>
</tr>
<tr>
<td>RPO_WRK_1</td>
<td>Rangipo–Wairakei 220 kV Circuit 1</td>
</tr>
<tr>
<td>SFD_T10</td>
<td>Stratford 220 / 110 kV Interconnecting Transformer T10</td>
</tr>
<tr>
<td>SFD_TMN_1</td>
<td>Stratford–Taumarunui 220 kV Circuit 1</td>
</tr>
<tr>
<td>TIK_WKM_1</td>
<td>Te Mihi–Whakamaru 220 kV Circuit 1</td>
</tr>
<tr>
<td>THI_WRK_1</td>
<td>Te Mihi–Wairakei 220 kV Circuit 1</td>
</tr>
<tr>
<td>TKB_TWZ_1</td>
<td>Tekapo B Twizel 220 kV Circuit 1</td>
</tr>
<tr>
<td>TKU_WKM_1</td>
<td>Tokaanu–Whakamaru 220 kV Circuit 1</td>
</tr>
<tr>
<td>TKU_WKM_2</td>
<td>Tokaanu–Whakamaru 220 kV Circuit 2</td>
</tr>
<tr>
<td>TMN_TWH_1</td>
<td>Taumarunui–Te Kowhai 220 kV Circuit 1</td>
</tr>
<tr>
<td>WKM_WRK_1</td>
<td>Whakamaru–Wairakei 220 kV Circuit 1</td>
</tr>
</tbody>
</table>
### Schedule H: Summary of actual pass-through costs and recoverable costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Formula</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local authority rates</strong></td>
<td>( A )</td>
<td>Rates payable to a local authority on system fixed assets</td>
</tr>
<tr>
<td><strong>Commerce Act levies</strong></td>
<td>( B )</td>
<td>Levies payable in accordance with clause 3.1.2(2)(b) of the Transpower IM</td>
</tr>
<tr>
<td><strong>Electricity Authority levies</strong></td>
<td>( C )</td>
<td>Levies payable in accordance with clause 3.1.2(2)(b)(ii) of the Transpower IM</td>
</tr>
<tr>
<td><strong>Utilities Disputes Limited levies</strong></td>
<td>( D )</td>
<td>Levies payable in accordance with clause 3.1.2(2)(b)(iii) of the Transpower IM</td>
</tr>
<tr>
<td><strong>Other pass-through costs levies</strong></td>
<td>( E )</td>
<td>Any other levies that are pass-through costs in accordance with clause 3.1.2(1)(b) of the Transpower IM</td>
</tr>
<tr>
<td><strong>Total pass-through costs</strong></td>
<td>( F = A + B + C + D + E )</td>
<td>Sum of pass-through costs for the disclosure year</td>
</tr>
<tr>
<td><strong>Incremental rolling incentive scheme recoverable costs</strong></td>
<td>( G )</td>
<td>Sum of recoverable costs under the incremental rolling incentive scheme in accordance with clause 3.1.3(1)(a) of the Transpower IM</td>
</tr>
<tr>
<td><strong>Instantaneous reserves availability charge</strong></td>
<td>( H )</td>
<td>Instantaneous reserves availability charges in accordance with clause 3.1.3(1)(c) of the Transpower IM</td>
</tr>
<tr>
<td><strong>Transmission alternative operating costs</strong></td>
<td>( I )</td>
<td>Transmission alternative operating costs in accordance with clause 3.1.3(1)(c) of the Transpower IM</td>
</tr>
<tr>
<td><strong>Operating costs incurred as part of a major capex project</strong></td>
<td>( J )</td>
<td>The amount of any operating costs that are recoverable costs in accordance with clause 3.1.3(1)(d) of the Transpower IM</td>
</tr>
<tr>
<td><strong>Net additional operating costs incurred in responding to a catastrophic event</strong></td>
<td>( K )</td>
<td>The amount of recoverable costs in accordance with clause 3.1.3(1)(e) of the Transpower IM</td>
</tr>
<tr>
<td><strong>Any levy payable to Fire and Emergency New Zealand under the Fire and Emergency New Zealand Act 2017</strong></td>
<td>( L )</td>
<td>The amount of recoverable costs in accordance with clause 3.1.3(1)(f) of the Transpower IM</td>
</tr>
<tr>
<td><strong>Total recoverable costs</strong></td>
<td>( M = G + H + I + J + K + L )</td>
<td>Sum of recoverable costs for the disclosure year</td>
</tr>
<tr>
<td><strong>Total pass-through costs and recoverable costs</strong></td>
<td>( N = F + M )</td>
<td>Sum of total pass-through costs and recoverable costs for the disclosure year</td>
</tr>
</tbody>
</table>
## Schedule I: Listed projects

<table>
<thead>
<tr>
<th>Line Name (Section)</th>
<th>Project Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunswick - Stratford B reconductoring</td>
<td>52.8</td>
</tr>
<tr>
<td>Bunnythorpe - Wilton A reconductoring</td>
<td>21.2</td>
</tr>
<tr>
<td>Bombay - Otahuhu A reconductoring</td>
<td>49.5</td>
</tr>
<tr>
<td>Otahuhu - Whakamaru A and B reconductoring</td>
<td>33.0</td>
</tr>
<tr>
<td><strong>Total estimated cost</strong></td>
<td><strong>156.5</strong></td>
</tr>
</tbody>
</table>
Schedule J: Directors’ certificate – pricing compliance statement

We, [insert full name of first director] and [insert full name of second director], being directors of Transpower New Zealand Limited, certify that, having made all reasonable enquiries, to the best of our knowledge and belief, the attached summary of forecast total revenues applied in the Transpower transmission pricing methodology under the Electricity Industry Participation Code for the pricing year commencing [insert pricing year] complies with the requirements of the Transpower Individual Price-Quality Path Determination 2020 *[except in the following respects].

*[insert description of non-compliance if applicable]

[Signatures of directors]
[Date]

*Delete if inapplicable.
Schedule K: Directors’ certificate – annual compliance statement

We, [insert full name of first director] and [insert full name of second director], being directors of Transpower New Zealand Limited, certify that, having made all reasonable enquiries, to the best of our knowledge and belief, the Annual Compliance Statement (and any supporting documents) for the period [insert disclosure year] and dated [insert date] complies with the requirements of the Transpower Individual Price-Quality Path Determination 2020*[except in the following respects].

*[insert description of non-compliance if applicable]*

[Signatures of directors]
[Date]

*Delete if inapplicable.*
Schedule L: Directors’ certificate – proposal to update forecast MAR and forecast SMAR

We, [insert full name of first director] and [insert full name of second director], being directors of Transpower New Zealand Limited, certify that, having made all reasonable enquiries, to the best of our knowledge and belief, the proposed update of the forecast MAR and the forecast SMAR for the period [insert disclosure year(s)] and dated [insert date] complies with the requirements of the Transpower Individual Price-Quality Path Determination 2020*[except in the following respects].

*[insert description of non-compliance if applicable]

[Signatures of directors]
[Date]

*Delete if inapplicable.
Explanatory note

The Transpower Individual Price-Quality Path Draft Determination 2020 [2019] NZCC XX (the Transpower IPP) sets an individual price-quality path for Transpower New Zealand Limited (Transpower) for the period 1 April 2020 to 31 March 2025 (referred to as ‘RCP3’).

The Commission has made this determination pursuant to Part 4 of the Commerce Act 1986 (the Act). It succeeds the individual price-quality path that commenced on 1 April 2015 and that expires on 31 March 2020.

The Transpower IPP sets out Transpower’s price path in terms of its annual maximum allowable revenue (being the forecast smoothed maximum allowable revenue) for each pricing year in RCP3. Key input values used to calculate Transpower’s annual maximum allowable revenue were determined by the Commission on 29 August 2019 as required by the Transpower Capital Expenditure Input Methodology Determination [2012] NZCC 2.

The Transpower IPP also sets out the quality standards that Transpower must comply with for each disclosure year in RCP3. Transpower is incentivised to maintain or improve its quality of supply of electricity transmission services, as a range of quality standards are linked by formulae to Transpower’s revenue.

For the purposes of monitoring compliance with Transpower’s price-quality path, Transpower must provide the Commission each pricing year with a pricing compliance statement and must provide an annual compliance statement (and supporting information) following each disclosure year ending 30 June. The Transpower IPP also requires Transpower to publicly disclose these and other information on its website. These additional information disclosure requirements are included within the Transpower IPP (rather than the Transpower Information Disclosure Determination 2014 [2014] NZCC 5) because they give effect to an operational feature of the price-quality path, or are linked to Transpower’s development plans for RCP3, rather than being enduring disclosures.

The Commission conducted a comprehensive process of consultation before determining this Transpower IPP. The determination and a reasons paper providing detailed background to, and analysis of, this Transpower IPP can be found on our website at:

[insert hyperlink]

Copies of this determination are also available for inspection free of charge at the Commission (during ordinary office hours), and they are available for purchase at a reasonable price at the Commission.
[Date] 2019

To: Transpower New Zealand Limited
PO Box 1021
WELLINGTON

[DRAFT] Notice to supply information to the Commerce Commission under section 53ZD(1)(d), (e), and (f) of the Commerce Act 1986 - Requirements for asset health and risk modelling information

Background

1. In our August 2019 decisions and reasons paper for the individual price-quality path that will apply to Transpower New Zealand Limited (Transpower) from 1 April 2020, we (the Commerce Commission – the Commission) identified that we would issue an information request to Transpower under section 53ZD(1) of Commerce Act 1986 (the Act) to provide us with information regarding its asset health and risk modelling.

2. We now require this information from Transpower under section 53ZD(1)(d), (e) and (f) of the Act. Specifically, we require Transpower:

   2.1 under s 53ZD(1)(d) of the Act, to produce a roadmap at the start of RCP3 setting out plans for developing its asset health and risk models, asset life-extension models, and risk-based decision-making frameworks in preparation for its RCP4 proposal (development roadmap);

   2.2 under s 53ZD(1)(e) of the Act, to provide information annually on its progress in developing asset health and risk models, asset life-extension models, and risk-based decision-making frameworks (annual update); and

   2.3 under s 53ZD(1)(f) of the Act, to obtain an opinion (expert opinion) midway through RCP3 from an independent expert on Transpower’s progress in developing its asset health and risk models, asset life-extension models, and risk-based decision-making frameworks.

3. The information is to give us confidence in the evaluation process for RCP4.

Commented [TP1]: The terms of reference (ToR) for the expert opinion are not mentioned in this list, or formally requested anywhere in the notice. The ToR is only described in Schedule A.
4. The specific requirements for the development roadmap, annual update, and expert report are set out in Schedule A of this notice.

5. We note that section 103 of the Act provides that no person shall:
   5.1 without reasonable excuse, refuse or fail to comply with a notice under section 53ZD of the Act;
   5.2 in purported compliance with such a notice, furnish information, or produce a document, or give evidence, knowing it to be false or misleading; or
   5.3 attempt to deceive or knowingly mislead the Commission in relation to any matter before it.

6. It is an offence to contravene section 103 of the Act and any person who does so is liable on summary conviction to a fine not exceeding $100,000 in the case of an individual or $300,000 in the case of a body corporate.

Purpose of the Notice

7. We require this information because we seek to understand the development path of Transpower’s asset health modelling and risk understanding over RCP3 in preparation for RCP4. This understanding will inform and assist our function under s 53P of the Act of assessing and resetting Transpower’s base capex, operating expenditure, and quality standards for RCP4.

8. In particular, the annual update will assist our ongoing investigation into Transpower’s progress in developing its asset health and risk models, asset life-extension models, and risk-based decision-making frameworks. Improving our understanding of these matters will better enable us to consider and assess, for example, the relationship between grid output measures proposed for RCP4 and Transpower capex and operating expenditure.

Date, place and format of responses

9. Transpower must supply the development roadmap no later than 105 working days from the end of the final disclosure year of RCP2.

10. Transpower must prepare and provide proposed terms of reference for the expert opinion (the terms of reference) to the Commission by no later than 28 February 2021. Transpower must provide for any feedback the Commission provides on the proposed terms of reference, and finalise the terms of reference by no later than 31 March 2021.

11. Transpower must supply the expert opinion no later than 105 working days from the disclosure year ending 30 June 2022.

12. Transpower must supply each annual update no later than 105 working days from the end of the relevant disclosure year.

13. The Commission may, at its absolute discretion, on Transpower’s application, grant Transpower an extension to the time limits set out in clauses 8, 9, 10 and 11 of this notice.

Commented [TP2]: The RCP4 IPP will be determined in August 2024 (clause 2.2.2(1) of the Capex IM).

If the purpose of the information is to assist with setting the RCP4 IPP, we should not be required to provide the annual update for the last or second to last disclosure year of RCP3 because by that stage the RCP4 IPP will already have been determined.

Commented [TP3]: We suggest this clause be expanded to allow Transpower to apply for an exemption as well as an extension, as it is proposed for information to be disclosed under the IPP (clause 35 of the draft IPP). This will allow the notice requirements to be flexible if it transpires certain information cannot reasonably be provided or there is better information to meet the Commission’s purpose than specified in the notice.

We suggest clauses 13 and 14 be redrafted as follows:

13. The Commission may, at its absolute discretion, on Transpower’s application, grant Transpower:
   13.1 an extension to the time limits set out in clauses 9, 10 and 11 of this notice; or
   13.2 an exemption from any of the information disclosure requirements of this notice.

14. For the purposes of clause 13:
   14.1 where Transpower applies for an extension or exemption, its application must:
   14.1.1 explain why Transpower considers that the extension or exemption is reasonably justified having regard to the circumstances;
   14.1.2 in the case of an exemption, describe any alternative information Transpower proposes to disclose to meet the purpose of this notice; and
   14.1.3 be made no later than 15 working days before the applicable time limit is due to expire; and
   14.2 in circumstances where the Commission decides to grant Transpower an extension or exemption:
   14.2.1 the extension or exemption shall be effected by giving or posting notice of the extension to Transpower;
   14.2.2 a notice effecting an extension must specify the period of the extension and the reasons for the extension; and
   14.2.3 a notice effecting an exemption must specify the scope of the exemption, any conditions of the exemption and the reasons for the exemption.
14. For the purposes of clause 13:

14.1 where Transpower applies for an extension, its application must:

14.1.1 explain why Transpower considers that an extension to the time limit is reasonably justified having regard to the circumstances; and

14.1.2 be made no later than 15 working days before the applicable time limit is due to expire; and

14.2 in circumstances where the Commission decides to grant Transpower an extension:

14.2.1 the extension shall be effected by giving or posting notice of the extension to Transpower; and

14.2.2 the notice effecting the extension must specify the period of the extension and the reasons for the extension.

15. Transpower must provide the Commission with the information required under this notice by either supplying the information directly to the Commission, or by making the information publicly available on Transpower’s website, and by notifying the Commission that it has done so.

16. Where information must be supplied, or where notice must be given to the Commission, this must be done by no later than 4:30pm on the date specified.

17. Where Transpower is required to notify the Commission, it must do so by email to regulation.branch@comcom.govt.nz (Attention: Manager Price-Quality Regulation), with the subject line “Transpower- Response to section 53ZD Notice – Asset management: Issued November 2019”.

Directors’ certificate

18. Subject to clauses 13-14, for the development roadmap and for each annual update, Transpower must provide to the Commission a directors’ certificate no later than 105 working days from the end of the relevant disclosure year.

19. Transpower may combine the directors’ certificate with the equivalent certification required for:

19.1 the annual compliance statement; and


Interpretation

20. Unless the context otherwise requires—

20.1 terms used in this notice that are defined in the Transpower IM Determination or the Capex IM Determination, but not in this notice, have the meaning given in the Transpower IM Determination or Capex IM Determination, as applicable;

20.2 a word which denotes the singular also denotes the plural and vice versa;

Commented [TP4]: Each notice should allow us to use reasonable endeavours to provide the information requested, avoiding undue exposure to non-compliance risk.

Commented [TP5]: A Director’s certificate should not be called for. Please refer to our submission letter.
20.3 annual compliance statement has the same meaning as defined in the IPP determination;

20.4 capex has the same meaning as defined in the Capex IM Determination;

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

20.6 directors’ certificate means a certificate signed by two directors of Transpower in respect of the development roadmap and for each annual update to this notice, in the form set out in Schedule B of this notice, except that Transpower may modify the form in Schedule B to combine it with the equivalent certification for the annual compliance statement and the Commission’s s 53ZD Notice – Customer consultation: Issued November 2019;

20.7 disclosure year has the same meaning as defined in the Transpower IM Determination;

20.8 good electricity industry practice has the meaning set out in the Electricity Industry Participation Code 2010;

20.9 grid output measure has the same meaning as defined in the Capex IM Determination;

20.10 HVDC means high voltage direct current;

20.11 independent expert means a person or organisation that:

20.11.1 has no relationship with, or interest in, Transpower that is likely to involve a conflict of interest between his, her or its duties to Transpower and his, her or its duties to the Commission; and

20.11.2 possesses sufficient expertise in the fields of asset management, asset health and network risk modelling;

20.12 IPP means individual price-quality path;

20.13 IPP determination means Transpower Individual Price-Quality Path Determination 2020 [2019] NZCC [XX];

20.14 operating expenditure has the same meaning as defined in the Transpower IM Determination;

20.15 quality standard has the same meaning as defined in the Capex IM Determination;

20.16 RCP2 means the regulatory period from 1 April 2015 to 31 March 2020, provided that references to the final disclosure year in RCP2 means the disclosure year ending on 30 June 2020;

20.17 RCP3 means the regulatory period from 1 April 2020 to 31 March 2025, provided that references to the final disclosure year in RCP3 means the disclosure year ending on 30 June 2025;
20.18 RCP4 means the regulatory period following RCP3;

20.19 Transpower IM Determination means the Transpower Input Methodologies Determination [2012] NZCC 17; and

20.20 working days has the meaning given in the Commerce Act 1986.

Use of supplied information and confidentiality

21. If Transpower considers that, for confidentiality reasons, the Commission should not publish or publicly refer to any particular part of its response, Transpower must:

21.1 specify the relevant part of the response and provide it to the Commission; and

21.2 give clear reasons why Transpower considers that part of the response is confidential.

22. If Transpower indicates that we should not publish or publicly refer to part of its response, we will discuss with Transpower before deciding whether or not to do so.

23. Where information is not publicly disclosed, Transpower must provide an unredacted version of the response to the Commission at the following email address: regulation.branch@comcom.govt.nz [Attention: Manager Price-Quality Regulation] at the same time the redacted version of the response is published on Transpower’s website.

24. However, please note that all responses we receive, including any parts that we decide not to publish, can be requested under the Official Information Act 1982. This means, that if requested, we would be required to release material (whether published or not) unless good reason existed under the Official Information Act 1982 to withhold it. We would normally consult before releasing any material that Transpower requests not to be published.

Dated at Wellington: [XX XXXX] 2019

Signed by:

[XXXX]
Commissioner

Commented [TP7]: Clause 15 makes publishing that discretionary.
Schedule A: Information required

Transpower to provide development roadmap for maturing asset health, asset life-extension and asset/network risk modelling

A1 Transpower must produce a development roadmap that identifies:

A1.1 the asset classes for which Transpower will further develop asset health models and asset life-extension models in line with the Commission’s RCP3 decision, including, but not limited to:

A1.1.1 HVDC and dynamic reactive support assets: Transpower to develop bespoke HVDC and dynamic reactive support asset health models on applicable systems that make up these assets, which are based on asset criticality and condition models typically used in similar facilities. 

A1.1.2 Static reactive support assets;

A1.1.3 Secondary assets – SA Protection, Battery Systems and Revenue Meters: Transpower to continue to implement asset life-extension modelling by further development of asset-centric health and criticality models;

A1.1.4 Secondary assets – SA Substation Management Systems: Transpower will actively track the failure rates of SMS assets and will replace devices on an age-based approach, balanced against the context of the wider system requirements. 

A1.2 the asset and network risk-based decision-making frameworks that Transpower will develop;

A1.3 for each of the models and frameworks identified under clauses A1.1 and A1.2 above, the date at which Transpower expects each model and framework to be able to be used to:

A1.3.1 inform price/quality or asset investment/network risk trade-offs that can be made across the asset fleet (ie, how asset and network outage risk is affected by different asset investment strategies);
A1.3.2 sufficiently explain different investment strategies and the likely quality outcomes to external parties, firstly at a network level of granularity but with a goal to do this at each grid exit point; and

A1.3.3 set forward-looking performance measures;

A1.4 key milestones for the process of developing the asset and network risk modelling; and

A1.5 the date Transpower expects to reach each milestone.

Transpower to obtain an expert opinion on its progress

A2 Transpower must obtain an expert opinion, having regard to the maturity of Transpower’s asset management practices identified under clauses A1.1 and A1.2, in the disclosure year 31 July 2021 to 30 June 2022.

A3 The expert opinion must:

A3.1 give effect to, and be consistent with, the terms of reference finalised under clause 10 of this notice;

A3.2 set out an assessment against good electricity industry practice of Transpower’s progress towards implementing:

A3.2.1 the further development of its asset health and asset life-extension modelling, where this has been identified as not yet sufficiently and reasonably developed, in line with clause A1.1; and

A3.2.2 the further development of its asset and network risk-based decision-making frameworks, in line with clause A1.2 to enable network investment decision-making to be informed by risk during RCP3 and in preparation for RCP4.

Transpower to provide annual update on its progress

A4 For each disclosure year of RCP3, Transpower must produce an annual update that sets out the following information:

A4.1 a statement of whether Transpower achieved the level of development, set out in the development roadmap, of asset health and risk models, asset life-extension models and risk-based decision-making frameworks;

A4.2 where Transpower has not achieved the level of development set out in the development roadmap in respect of one or more of asset health and risk models, asset life-extension models and risk-based decision-making frameworks:

A4.2.1 the difference between the level of progress Transpower achieved, and the level set out in its development roadmap;

Commented [TP14]: ‘Timeframe’ is more realistic.

Commented [TP15]: The independent expert is to report on network risk modelling, not asset management practices in general.

Commented [TP16]: The expert must implicitly endorse the roadmap but its assessment against GEIP could raise that the development approach is not consistent with GEIP. The ToR should allow for departures from the roadmap if doing so better meets GEIP.

Commented [TP17]: Clause A4 is overly prescriptive. The wording in the decision paper (page 417) would suffice – “Transpower to report annually on its progress towards implementing the development roadmap.” The form and content of the update should be left to our discretion, which could take into account any feedback from stakeholders on prior updates.
A4.2.2 an explanation of the reasons for the difference; and

A4.2.3 the steps Transpower is taking in order to help ensure it still meets the deliverables of the development roadmap;

A4.3 whether Transpower expects to achieve the level of progress set out in the development roadmap for the next disclosure year and, where it does not expect to achieve that level of progress:

A4.3.1 the level of progress Transpower expects to achieve and how this compares to the development roadmap;

A4.3.2 an explanation of the reasons for the difference; and

A4.3.3 the steps Transpower is taking to help ensure that it will still meet the requirements of the development roadmap;

A4.4 information about how the proposed RCP3 asset health measures perform in each asset class, and in each year of RCP3, if these asset health measures had been revenue-linked as proposed by Transpower in its RCP3 proposal;

A4.5 information about how the proposed RCP3 asset health measures perform in each asset class, and in each year of RCP3, where the actual percentage of assets with an asset health index (AHI) score greater than 8 exceed the collar value percentage of assets with an AHI score greater than 8, with the collar values set out in Table A1 below; and

A4.6 in circumstances where Transpower proposes to do any additional work as a result of the expert opinion:

A4.6.1 for the disclosure year from 1 July 2021 to 30 June 2022, how the additional work takes into account recommendations (if any) from the expert opinion, and a timeline for this additional work; and

A4.6.2 for each disclosure year from 1 July 2022 to 30 June 2025, the information contained in clauses A4.3.1 to A4.3.3 above in relation to the additional work described in clause A4.6.1.
<table>
<thead>
<tr>
<th>Asset class</th>
<th>2020/2021 (%)</th>
<th>2021/2022 (%)</th>
<th>2022/2023 (%)</th>
<th>2023/2024 (%)</th>
<th>2024/2025 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tower grillage foundation</td>
<td>7.11</td>
<td>8.17</td>
<td>8.22</td>
<td>7.89</td>
<td>9.47</td>
</tr>
<tr>
<td>Tower protective coating</td>
<td>5.77</td>
<td>6.81</td>
<td>8.09</td>
<td>8.94</td>
<td>9.96</td>
</tr>
<tr>
<td>Insulators</td>
<td>1.55</td>
<td>3.35</td>
<td>5.59</td>
<td>7.96</td>
<td>10.36</td>
</tr>
<tr>
<td>Power transformers</td>
<td>3.22</td>
<td>3.68</td>
<td>5.37</td>
<td>8.65</td>
<td>12.03</td>
</tr>
<tr>
<td>Outdoor circuit breakers</td>
<td>2.00</td>
<td>2.37</td>
<td>5.65</td>
<td>7.63</td>
<td>8.27</td>
</tr>
</tbody>
</table>
Schedule B: Director Certification of Information

Directors’ Certificate

We, [insert full name of first director] and [insert full name of second director], being directors of Transpower New Zealand Limited (Transpower), certify that, having made all reasonable enquiry, to the best of our knowledge and belief, the attached information, dated [insert date], complies in all material respects with the requirements of the Commerce Commission’s asset health and risk modelling information notice, issued in writing to Transpower under section 53ZD(1) of the Commerce Act 1986 on [insert date]*[except in the following respects:]

*[insert description of non-compliance if applicable]*

[Signature of director]

[Signature of director]

[Date]

*Delete if inapplicable.

Commented [TP18]: No certification should be called for. Please refer to our accompanying submission letter
[Date] 2019

To: Transpower New Zealand Limited
PO Box 1021
WELLINGTON

[DRAFT] Notice to supply information to the Commerce Commission under section 53ZD(1)(d), (e) and (f) of the Commerce Act 1986 – Customer consultation information

Background

1. In our August 2019 decision and reasons paper for the individual price-quality path that will apply to Transpower New Zealand Limited (Transpower) from 1 April 2020, we (the Commerce Commission – the Commission) identified that we would issue an information request to Transpower under section 53ZD(1) of Commerce Act 1986 (the Act) to provide us with information regarding customer consultation.

2. We now require this information from Transpower under section 53ZD(1)(d), (e) and (f) of the Act, specifically:

   2.1 under section 53ZD(1)(d) of the Act, to prepare and produce a customer engagement plan for RCP3 (customer engagement plan);

   2.2 under section 53ZD(1)(e) of the Act, to supply information annually on the extent and effectiveness of its consultation in relation to how it intends to spend its base capex in each disclosure year of RCP3 (consultation information);

   2.3 under section 53ZD(1)(e) of the Act, to produce an annual report each disclosure year of RCP3 on post-project reviews for significant capex projects (post-project reviews) (the review report);

   2.4 under section 53ZD(1)(f) of the Act, midway through RCP3, obtain and provide an opinion from an independent expert on its proposed customer engagement process leading up to its RCP4 proposal (expert opinion); and

Commented [TP1]: We note that the high-level scope for the customer engagement plan is not mentioned in this list (although it is requested by cross-reference to Schedule A in clause 7).

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1 Commerce Commission “Transpower’s individual price-quality path from 1 April 2020 – Decisions and reason paper” (29 August 2019), at [K7] to [K8].
2.5 under section 53ZD(1)(e) of the Act, to produce a report summarising the post-
interruption survey results of affected customers to assist our investigation into the
timeliness of Transpower’s information provision following an interruption (post-
interruption survey report).²

3. The detailed requirements for the customer engagement plan, consultation information,
post-project reviews, expert opinion, and post-interruption survey results are specified at
Schedule A of this notice.

4. The information is to improve our understanding of Transpower’s customer engagement
during RCP3 and to give us confidence in the evaluation process for RCP4.

5. We note that section 103 of the Act provides that no person shall:

5.1 without reasonable excuse, refuse or fail to comply with a notice under section 53ZD
of the Act;

5.2 in purported compliance with such a notice, furnish information, or produce a
document, or give evidence, knowing it to be false or misleading; or

5.3 attempt to deceive or knowingly mislead the Commission in relation to any matter
before it.

6. It is an offence to contravene section 103 of the Act and any person who does so is liable on
summary conviction to a fine not exceeding $100,000 in the case of an individual or
$300,000 in the case of a body corporate.

Purpose of the Notice

7. Under section 53ZD(1)(d), (e) and (f) of the Act, we require that Transpower provide us with
the information specified in Schedule A.

8. We require this information to assist our function under section 53P of the Act of resetting
of Transpower’s individual price-quality path for RCP4. Specifically, the information on the
effectiveness of Transpower’s customer engagement, its consultation, and the information
Transpower provides to customers following an interruption will help us to set an individual
price-quality path that better incentivises Transpower to provide services at a quality that
reflects consumer demands.

Date, place and format of responses

9. Transpower must supply its proposed high-level scope (high-level scope) for the customer
engagement plan by 15 May 2020. The Commission will provide any comments to
Transpower on the high-level scope by 1 July 2020.

10. Transpower must supply the customer engagement plan no later than 105 working days
from the end of the final disclosure year of RCP2.
11. Each disclosure year of RCP3, Transpower must supply the consultation information no later than 105 working days from the end of the disclosure year to which the consultation information relates.

12. Transpower must supply the expert opinion no later than 105 working days from the disclosure year ending 30 June 2022.

13. Each disclosure year of RCP3, Transpower must supply a review report on all post-project reviews completed no later than 105 working days from the end of the disclosure year to which the review report relates.

14. Each disclosure year of RCP3, Transpower must provide the post-interruption survey report no later than 105 working days from the end of the disclosure year to which the post-interruption survey report relates.

15. The Commission may, at its absolute discretion, on Transpower’s application, grant Transpower an extension to the time limits set out in clauses [10 to 14 of this notice] of this notice.

16. For the purposes of clause 15:

16.1 where Transpower applies for an extension, its application must:
   16.1.1 explain why Transpower considers that an extension to the time limit is reasonably justified having regard to the circumstances; and
   16.1.2 be made no later than 15 working days before the applicable time limit is due to expire; and

16.2 in circumstances where the Commission decides to grant Transpower an extension:
   16.2.1 the extension shall be effected by giving or posting notice of the extension to Transpower; and
   16.2.2 the notice effecting the extension must specify the period of the extension and the reasons for the extension.

17. Transpower must provide the Commission with the information required under this notice by either supplying the information directly to the Commission, or by making the information publicly available on Transpower’s website, and by notifying the Commission that it has done so.

18. Where information must be supplied, or where notice must be given to the Commission, this must be done by no later than 4:30pm on the date specified.

19. Where Transpower is required to provide information to, or notify, the Commission, it must do so by email to regulation.branch@comcom.govt.nz (Attention: Manager Price-Quality Regulation), with the subject line “Transpower- Response to section 532D Notice – Customer consultation: Issued November 2019”.

Commented [TP4]: The RCP4 IPP will be determined in August 2024 (clause 2.2.1(1) of the Capex IM). If the purpose of the information is to assist with setting the RCP4 IPP, we should not be required to provide the consultation information for the last disclosure year of RCP3 because by that stage the RCP4 IPP will already have been determined. It is likely the consultation information for the second-to-last disclosure year of RCP3 would also be provided too late.

Commented [TP5]: Our comment on clause 11 also applies to the review report for the last two disclosure years of RCP3.

Commented [TP6]: Our comment on clause 11 also applies to the post-interruption survey report for the last two disclosure years of RCP3.

Commented [TP7]: This clause should also apply to the time limit in clause 9 (for the high-level scope).

Commented [TP8]: We suggest this clause be expanded to allow Transpower to apply for an exemption as well as an extension, as is proposed for information to be disclosed under the IPP (clause 35 of the draft IPP). This will allow the notice requirements to be sensibly flexible if it transpires certain information cannot reasonably be provided or there is better information to meet the Commission’s purpose than specified in the notice.

We suggest clauses 15 and 16 be redrafted as follows:

15. The Commission may, at its absolute discretion, on Transpower’s application, grant Transpower an extension:
   15.1 an extension to the time limits set out in clauses 9 to 14 of this notice; or
   15.2 an exemption from any of the information disclosure requirements of this notice.

16. For the purposes of clause 14:
   16.1 where Transpower applies for an extension or exemption, its application must:
       16.1.1 explain why Transpower considers that the extension or exemption is reasonably justified having regard to the circumstances;
       16.1.2 in the case of an exemption, describe any alternative information Transpower proposes to disclose to meet the purpose of this notice; and
       16.1.3 be made no later than 15 working days before the applicable time limit is due to expire; and
   16.2 in circumstances where the Commission decides to grant Transpower an extension or exemption:
       16.2.1 the extension or exemption shall be effected by giving or posting notice of the extension to Transpower;
       16.2.2 a notice effecting an extension must specify the period of the extension and the reasons for the extension; and
       16.2.3 a notice effecting an exemption must specify the scope of the exemption, any conditions of the exemption and the reasons for the exemption.
Directors’ certificate

20. Subject to clauses 15-16, for each disclosure year of RCP3, Transpower must provide to the Commission a directors’ certificate in respect of the information required under this notice in the relevant disclosure year, no later than 105 working days from the end of the relevant disclosure year.

21. Clause 20 does not apply in respect of the expert opinion and the proposed high-level scope.

22. Transpower may combine the directors’ certificate with the equivalent certification required for:

22.1 the annual compliance statement; and


Interpretation

23. Unless the context otherwise requires—

23.1 terms used in this notice that are defined in the Transpower IM Determination, the Capex IM Determination, or the IPP determination, but not in this notice have the meaning given in the IM Determination, Capex IM Determination or IPP determination as applicable;

23.2 a word which denotes the singular also denotes the plural and vice versa;

23.3 annual compliance statement has the meaning specified in the IPP determination;

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

23.5 base capex project has the same meaning as defined in the Capex IM Determination;

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

23.7 consultation information means the information required under clause A3 of Schedule A of this notice;

23.8 customer has the same meaning as defined in the IPP determination;

23.9 customer engagement plan means the plan required under clause A2 of Schedule A of this notice;

23.10 directors’ certificate means a certificate signed by two directors of Transpower in respect of the information required under this notice, in the form specified at Schedule B of this notice, except that Transpower may modify the form in Schedule B to combine it with the equivalent certification for the annual compliance statement and the Commission’s s 53ZD Notice – Requirements for asset health and risk modelling information: Issued November 2019;

Commented [TP9]: We seek that the Commission reconsiders the certification requirement; see our submission on the draft IPP and proposed notices.

Commented [TP10]: The revised draft IPP determination refers to the Transpower IM, but the Transpower IM does not have a definition for customer. Customer is defined by our Information Disclosure Regulation.
23.11 disclosure year has the same meaning as defined in the Transpower IM Determination;

23.12 expert opinion means the expert opinion required under clause A5 of Schedule A of this notice;

23.13 high-level scope means the scoping document (for the customer engagement plan) that meets the requirements of clause AA1 of Schedule A of this notice;

23.14 independent expert means a person who-

23.14.1 has no relationship with, or interest in, Transpower that is likely to involve a conflict of interest between his, her or its duties to Transpower and his, her or its duties to the Commission;

23.14.2 possesses expertise in the field of customer engagement; and

23.15 interruption has the same meaning as defined in the IPP Determination;

23.16 IPP determination means the Transpower Individual Price-Quality Path Determination 2020 [2019] NZCC XX;

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

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

23.19 post-interruption survey report means the report required under clause A6 of Schedule A of this notice;

23.20 post-project review means a review of a significant capex project which must include an assessment of the extent to which the significant capex project met the relevant measures of success established by Transpower prior to starting that significant capex project;

23.21 RCP2 means the regulatory period prior to RCP3, being the period from 1 April 2015 to 31 March 2020, provided that references to the final disclosure year in RCP2 means the disclosure year ending on 30 June 2020;

23.22 RCP3 means the regulatory period from 1 April 2020 to 31 March 2025, provided that references to the final disclosure year in RCP3 means the disclosure year ending on 30 June 2025;

23.23 RCP4 means the regulatory period following RCP3;

23.24 significant capex project means a capital expenditure project that required approval from Transpower’s Board to proceed;

23.25 Transpower IM Determination means the Transpower Input Methodologies Determination [2012] NZCC 17;

23.26 transmission alternative has the same meaning as defined in the Transpower IM Determination.

Commented [TP11]: This should refer to the Capex IM.
23.27 **unplanned interruption** has the same meaning as defined in the IPP determination; and

23.28 **working days** is defined in the Commerce Act 1986.

**Use of supplied information and confidentiality**

24. If Transpower considers that, for confidentiality reasons, the Commission should not publish or publicly refer to any particular part of Transpower’s response to this notice, Transpower must:

24.1 specify the relevant part of the response; and

24.2 give clear reasons why Transpower considers that part of the response is confidential.

25. If Transpower indicates that we should not publish or publicly refer to part of its response, we will discuss with Transpower before deciding whether or not to do so.

26. Where information is not publicly disclosed by Transpower, it must provide an unredacted version of the report to the Commission at the following email address: regulation.branch@comcom.govt.nz (Attention: Manager Price-Quality Regulation) at the same time the redacted version of the report is published on Transpower’s website.

27. However, please note that all responses we receive, including any parts that we decide not to publish, can be requested under the Official Information Act 1982. This means, that if requested, we would be required to release material (whether published or not) unless good reason existed under the Official Information Act 1982 to withhold it. We would normally consult before releasing any material that Transpower requests not to be published.

Dated at Wellington: [XX XXXX] 2019

Signed by:

[XXXX]
Commissioner

Commented [TP12]: Clause 17 makes publishing discretionary.
Schedule A: Information required

Transpower to produce high-level scope and customer engagement plan

A1 Transpower must produce a proposed high-level scope for a customer engagement plan, which identifies:

A1.1 the business objective or objectives that are to be advanced;

A1.2 the customer communications/engagement objectives that support the business objectives;

A1.3 the success measures for each objective; and

A1.4 the expected timeframes and processes for the customer consultations Transpower intends to conduct during RCP3.

A2 Transpower must produce a customer engagement plan that:

A2.1 sets out how Transpower intends to:

A2.1.1 engage with customers on their preferences regarding price-quality trade-offs during RCP3; and

A2.1.2 take into account customer preferences in making asset management, planning and investment decisions during RCP3.

A2.2 explains the reasons for any material departures from:

A2.2.1 the high-level scope; and

A2.2.2 any feedback the Commission provides to Transpower on the high-level scope.

Consultation information each disclosure year

A3 Each disclosure year of RCP3, Transpower must produce consultation information that includes:

A3.1 whether and how Transpower consulted with customers and interested parties on how Transpower intends to spend its base capex in RCP3;

A3.2 what base capex projects, or aspects of a base capex project, in RCP3, Transpower consulted on;

A3.3 the extent of involvement in those consultations from providers of transmission alternatives;

A3.4 how effective Transpower considered the consultation was; and

A3.5 how satisfied customers and others were with the consultation processes, based on the feedback they provided.

Commented [TP13]: “Take into account” is too high a standard. This should be “have regard to”, consistent with the standard that generally applies to the Commission’s evaluations (e.g. clause A1 of the Capex IM).
**Review report on post-project reviews for significant capex projects**

**A4** Each disclosure year, Transpower must produce a review report that includes:

A4.1 the measures of success for each significant capex project established by Transpower prior to starting work on that significant capex project; and

A4.2 an assessment of the extent to which each significant capex project met its measures of success.

**Transpower to obtain the expert opinion**

**A5** Transpower must obtain an expert opinion that:

A5.1 assesses Transpower’s proposed customer engagement processes leading up to the preparation and submission of its RCP4 regulatory proposal; and

A5.2 sets out the qualifications, relating to customer engagement, of the independent expert, and how that independent expert meets the requirements in clause 23.13.

**Reporting summaries of post-interruption surveys within each disclosure year**

**A6** For each interruption in RCP3, Transpower must produce a post-interruption survey report that summarises:

A6.1 the impact of unplanned interruptions on customers by reference to surveys undertaken of customers following unplanned interruptions;

A6.2 the information Transpower provided on unplanned interruptions to affected customers; and

A6.3 feedback from affected customers on the effectiveness of Transpower’s communication on the unplanned interruptions.

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Commented [TP14]: The post-interruption survey report is required for each disclosure year, not for each interruption. For clarity, “interruption” should be “unplanned interruption.”
Schedule B: Director Certification of Information

Directors’ Certificate

We, [insert full name of first director] and [insert full name of second director], being directors of Transpower New Zealand Limited (Transpower), certify that, having made all reasonable enquiry, to the best of our knowledge and belief, the attached information, dated [insert date], complies in all material respects with the requirements of the Commerce Commission’s customer consultation information notice, issued in writing to Transpower under section 53ZD(1) of the Commerce Act 1986 on [insert date]*[except in the following respects:].

*[insert description of non-compliance if applicable]

[Signature of director]

[Signature of director]

[Date]

*Delete if inapplicable.
[DRAFT] Notice to supply information to the Commerce Commission under section 53ZD(1)(e) of the Commerce Act 1986 – Cost estimation information

Background

1. In our August 2019 decision and reasons paper for the individual price-quality path that will apply to Transpower New Zealand Limited (Transpower) from 1 April 2020, we (the Commerce Commission – the Commission) identified that we would issue an information request to Transpower under section 53ZD(1) of Commerce Act 1986 (the Act) to provide us with information on the variances between cost estimates in a proposal, those in Transpower’s delivery business case, and the actual costs of commissioned projects.¹

2. We now require this information from Transpower under section 53ZD(1)(e) of the Act to:
   2.1 enable us to investigate and assess the efficiency of Transpower’s cost estimation process and systems over RCP2 and RCP3; and
   2.2 assist our reset of Transpower’s individual price-quality path for the regulatory control period following RCP3.

3. The information is to assist us in our cost estimation considerations for the regulatory control period following RCP3.

4. We note that section 103 of the Act provides that no person shall:
   4.1 without reasonable excuse, refuse or fail to comply with a notice under section 53ZD of the Act;
   4.2 in purported compliance with such a notice, furnish information, or produce a document, or give evidence, knowing it to be false or misleading; or
   4.3 attempt to deceive or knowingly mislead the Commission in relation to any matter before it.

5. It is an offence to contravene section 103 of the Act and any person who does so is liable on summary conviction to a fine not exceeding $100,000 in the case of an individual or $300,000 in the case of a body corporate.

¹ Commerce Commission “Transpower’s individual price-quality path from 1 April 2020 – Decisions and reason paper” (29 August 2019), at [H31] to [H32].
Purpose of the Notice

6. Under section 53ZD(1)(e) of the Act, we require Transpower to provide us with the information specified in Schedule A.

7. We require the information to:
   7.1 enable the Commission to investigate and monitor the extent to which Transpower is improving the efficiency of its cost estimation process; and
   7.2 assist our reset under section 53P of the Act of Transpower’s individual price-quality path for the regulatory control period following RCP3.

8. The information will assist our reset of Transpower’s individual price-quality path by providing a clearer picture of Transpower’s actual costs that will comprise the individual price-quality path.

Place, date and format of responses

9. Transpower must produce the information specified in Schedule A and the certificate specified in Schedule B by:
   9.1 supplying the information and certification directly to the Commission by email to regulation.branch@comcom.govt.nz (Attention: Manager Price-Quality Regulation), with the subject line “Transpower – Response to section 53ZD Notice – Cost estimation: Issued November 2019”; or
   9.2 making the information and certification publicly available on Transpower’s website, and notifying the Commission that it has done so, by no later than 4.30pm on the day that is 105 working days from the following dates:
      9.2.1 30 June 2020, in relation to the completed capex programmes completed in RCP2;
      9.2.2 30 June 2021, in relation to the completed capex programmes completed during the disclosure year 1 July 2020 to 30 June 2021;
      9.2.3 30 June 2022, in relation to the completed capex programmes completed during the disclosure year 1 July 2021 to 30 June 2022;
      9.2.4 30 June 2023, in relation to the completed capex programmes completed during the disclosure year 1 July 2022 to 30 June 2023;
      9.2.5 30 June 2024, in relation to the completed capex programmes completed during the disclosure year 1 July 2023 to 30 June 2024;
      9.2.6 30 June 2025, in relation to the completed capex programmes completed during the disclosure year 1 July 2024 to 30 June 2025; and
      9.2.7 30 June 2025, in relation to the completed capex programmes completed in RCP3.

Commented [TP2]: As drafted, the timing requirements in the subclauses of clause 9.2 do not apply to information we provide directly to the Commission, which we assume is unintended.

Commented [TP3]: It is unclear what “completed” means versus “commissioned”, and we note the terms are used interchangeably in this clause, clause 9.27 and clause A1.2. From our perspective we would not consider a project or programme to be “completed” until all costs for the project or programme have been finalised and attributed. Depending on the project or programme, that can be a very considerable period of time after commissioning. The result is that the cost estimation information may not be provided until a disclosure year after the project or programme has been commissioned.

Commented [TP4]: See our comment on clause 9.2.6 in relation to providing the information for the second-to-last disclosure year of RCP3.

Commented [TP5]: The RCP4 IPP will be determined in August 2024 (clause 2.2.2(1) of the Capex IM). If the purpose of the information is to assist with setting the RCP4 IPP, we should not be required to provide the information for the last disclosure year of RCP3 because by that stage the RCP4 IPP will already have been determined. It is likely the consultation information for the second-to-last disclosure year of RCP3 would also be provided too late.

Commented [TP6]: Our comment on clause 9.2.6 also applies to this clause.
10. Narrative information is to be provided or published in Adobe PDF format. Numerical information is to be provided or published in electronic form in MS Excel file format.

11. The Commission may, at its absolute discretion, on Transpower’s application, grant Transpower an extension to the time limits set out in clause 9.2 of this notice.

12. For the purposes of clause 11:

12.1 where Transpower applies for an extension, its application must:

12.1.1 explain why Transpower considers that an extension to the time limit is reasonably justified having regard to the circumstances; and

12.1.2 be made no later than 15 working days before the applicable time limit is due to expire; and

12.2 in circumstances where the Commission decides to grant Transpower an extension:

12.2.1 the extension shall be effected by giving or posting notice of the extension to Transpower; and

12.2.2 the notice effecting the extension must specify the period of the extension and the reasons for the extension.

CEO’s certificate

13. Subject to clauses 11-12, for the last disclosure year of RCP2 and for each disclosure year of RCP3, Transpower must provide to the Commission a CEO’s certificate in respect of the information required under this notice in the relevant disclosure year, by the day that is 105 working days from the end of the relevant disclosure year.

Interpretation

14. In this notice, unless the context otherwise requires—

14.1 terms used in this notice that are defined in the Transpower IM Determination or the Capex IM Determination but not in this notice have the meaning given in the Transpower IM Determination or Capex IM Determination, as applicable.

14.2 financial items must be measured and disclosed in accordance with GAAP, unless otherwise required by this notice, the IM Determination or the Capex IM Determination.

14.3 non-financial items must be measured and disclosed in accordance with standard industry practice unless otherwise required in this notice, the Transpower IM Determination or the Capex IM Determination.

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

14.5 words in bold type have the following meanings:

14.5.1 base capex project has the same meaning as defined in the Capex IM Determination;
14.5.2 **base capex programme** has the same meaning as defined in the **Capex IM Determination**;

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

14.5.4 **CEO’s certificate** means a certificate signed by the chief executive of **Transpower** in respect of the information required under this notice, in the form specified at Schedule B of this notice;

14.5.5 **commissioned** has the same meaning as defined in the **Transpower IM Determination**;

14.5.6 **completed capex project** means:

(a) a **base capex project** (including listed projects commissioned in RCP2 or in RCP3) completed in RCP3, for which the estimated cost was greater than $5 million; or

(b) a **major capex project** completed in RCP3;

14.5.7 **completed capex programme** means a volumetric **base capex programme** where the estimated cost was greater than $20 million over the relevant regulatory control period.

14.5.8 **delivery business case cost estimate** means, in relation to a **project**, the estimate of the cost included in **Transpower’s** business case that was used to seek approval to proceed with the implementation and construction phases of that **project**;

14.5.9 **disclosure year** has the same meaning as defined in the **Transpower IM Determination**;

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

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

14.5.12 **programme** has the same meaning as defined in the **Capex IM Determination**;

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

14.5.14 **proposal cost estimate** means, in relation to a **project**:

(c) the expected cost **Transpower** initially proposed in its RCP3 proposal for that **project** or **programme**;

(d) in its **listed project** application for that **project**; or

(e) in the **major capex proposal** for that project, whichever is relevant;

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Commented [TP9]: **Commissioned** is a date in our financial system, but those costs will not be actual costs until sometime after commissioning. Which means that completion may not be in the same disclosure year as commissioning.
5

14.5.15 **RCP2** means the regulatory period prior to **RCP3**, being the period from 1 April 2015 to 31 March 2020, provided that references to the final disclosure year in **RCP2** means the disclosure year ending on 30 June 2020; and

14.5.16 **RCP3** means the regulatory period from 1 April 2020 to 31 March 2025, provided that references to the final disclosure year in **RCP3** means the disclosure year ending on 30 June 2025; and

14.5.17 **regulatory control period** has the same meaning as defined in the **Transpower IM Determination**; and

14.5.18 **Transpower IM Determination** means **Transpower Input Methodologies Determination** [2012] NZCC 17.

**Use of supplied information and confidentiality**

15. If **Transpower** considers that, for confidentiality reasons, the **Commission** should not publish or publicly refer to any particular part of **Transpower’s** response, **Transpower** must:

1.2 specify the relevant part of the information and provide it to the **Commission**; and

1.3 give clear reasons why **Transpower** considers that part of the information is confidential.

16. If **Transpower** indicates that we should not publish or publicly refer to part of its response, we will discuss this with **Transpower** before deciding whether to do so.

17. Where information is not publicly disclosed by **Transpower**, it must provide an unredacted version of the information to the **Commission** at the following email address: regulation.branch@comcom.govt.nz (Attention: Manager Price-Quality Regulation) at the same time the redacted version of the report is published on **Transpower’s** website.

18. Please note that all responses we receive, including any parts that we decide not to publish, can be requested from the **Commission** under the Official Information Act 1982. This means that, if requested, we would be required to release material (whether published or not) unless good reason existed under the Official Information Act 1982 to withhold it. We would normally consult before releasing any material that **Transpower** requests not to be published.

Dated at Wellington:  XX XXXX  2019

Signed by:

[XXX]
Deputy Chair
Schedule A: Information required

Transpower is to produce information on variances between cost estimates in a proposal, those in the delivery business case, and the actual costs of commissioned projects.

A1. Transpower must produce the following information:

A1.1 in relation to each completed capex project that is completed during RCP3:

A1.1.1 the variances between the cost estimate in the proposal document, the delivery business case cost estimate, and the actual costs, for each completed capex project that is:

(a) a base capex project included in Transpower’s capital expenditure proposal for its base capex for RCP3, and for which assets were commissioned during RCP3;

(b) a listed project for which assets were commissioned during RCP2 or RCP3; or

(c) a major capex project for which assets were commissioned during RCP2 or RCP3.

A1.1.2 a print-out of Transpower’s Enterprise Estimating System cost report for the proposal cost estimate and delivery business case cost estimate phases of each completed capex project included in A1.1.1(a) to (c) above; and

A1.1.3 where the variance for a completed capex project in A1.1.1(a) to (c) above, between the proposal cost estimate and the delivery business case cost estimate, exceeds 30%, a detailed narrative explaining the reasons for the cost variance.

A1.2 in relation to completed capex programmes for which assets were commissioned during RCP2 or RCP3:

A1.2.1 the variance between the cost estimate of each completed capex programme in the applicable individual price-quality path proposal and the actual cost of the completed capex programme at the end of RCP2 or at the end of RCP3;

A1.2.2 where the variance for a completed capex programme between the completed capex programme’s cost estimate and the actual cost of the completed capex programme at the end of RCP2 or at the end of RCP3 is greater than 20%, a detailed narrative explaining the reasons for the cost variance.

Commented [TP11]: As above, ‘Completed’ means when all costs are in for a commissioned project. Actual cost information may be concluded later than the commissioning date and in a different disclosure year.

Commented [TP12]: We may change the system, so we suggest it is described generically rather than named.

Commented [TP13]: Suggest “an explanation of the reasons for the cost variance.” This comment also applies to clause A1.2.2.

2 "Cost estimate in the proposal document” is the cost estimate included in the base capex proposal or in the major capex or listed project applications to the Commission, whichever is applicable to the completed capex project.
Schedule B: Certification of Information

Transpower must provide the Commission with CEO certification for the information provided in response to this notice in the format set out below:

CEO Certificate

I, [insert full name of CEO], being the Chief Executive Officer of Transpower New Zealand Limited (Transpower) certify that, having made all reasonable enquiry, to the best of my knowledge and belief, the attached information, dated [insert date], complies in all material respects with the Commerce Commission’s cost estimation information requirements, which were issued by notice in writing to Transpower under section 53ZD of the Commerce Act 1986 on [insert date] * [except in the following respects:].

*[insert description of non-compliance if applicable]*

[Signature of CEO]

[Date]

*Delete if inapplicable.*