

# **Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025**

**Draft decision paper**

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## Associated documents

Publication date	Reference	Title
29 May 2024	ISBN 978-1-991287-24-3	Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Draft Decision Attachment A – Revenue path design
29 May 2024	ISBN 978-1-991287-25-0	Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Draft Decision Attachment B - Capex
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29 May 2024	ISBN 978-1-991287-31-1	Proposed amendments to input methodologies for Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025. Draft decision
29 May 2024	ISBN 978-1-991287-29-8	[DRAFT] Transpower Individual Price-Quality Path Determination 2025
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29 May 2024	N/A	<a href="#">Understanding how changes to line charges may impact your electricity bill webpage</a>
29 May 2024	ISBN 978-1-991287-33-5	Default price-quality paths for electricity distribution businesses from 1 April 2025 - Draft reasons paper
29 May 2024		RCP4 Deliverability model
25 January 2024	ISBN 978-1-991085-71-9	<a href="#">Transpower's individual price-quality path for the next regulatory control period: Issues paper</a>
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13 December 2023	ISSN 1178-2560	<a href="#"><u>Transpower Input Methodologies (IM Review 2023) Amendment Determination 2023</u></a>
07 October 2021	ISSN 1178-2560	<a href="#"><u>Transpower Individual Price-Quality Path Determination 2020 – consolidated version (7 October 2021)</u></a>
14 November 2019	ISBN 978-1-869457-70-9	<a href="#"><u>Transpower Individual Price-Quality Path from 1 April 2010 – Companion paper to final RCP3 IPP determination and information gathering notices</u></a>
29 August 2019	ISBN 978-1-869456-54-9	<a href="#"><u>Transpower’s individual price-quality path from 1 April 2020 - Decisions and reasons paper</u></a>

Commerce Commission  
Wellington, New Zealand

## Contents

<b>Executive Summary .....</b>	<b>5</b>
<b>Chapter 1 Introduction.....</b>	<b>19</b>
<b>Chapter 2 Context.....</b>	<b>24</b>
<b>Chapter 3 Our draft decisions.....</b>	<b>30</b>
<b>Chapter 4 IM amendments .....</b>	<b>45</b>

## Executive Summary

- X1 We are setting the individual price-quality path (**IPP**) for Transpower New Zealand Limited (**Transpower**) for the next regulatory period from 1 April 2025 to 31 March 2030 (referred to in this paper as **RCP4**). The IPP we are setting will be Transpower's fourth IPP.
- X2 We are required to set Transpower's IPP in accordance with the purpose of Part 4 of the Commerce Act 1986 (**Part 4**). Our desired outcomes for the IPP, which are based on s 52A in Part 4, are:
- X2.1 Transpower's customers, and ultimately household consumers, will receive electricity transmission services in RCP4 at a quality they expect and will not pay more in RCP4 for those services than they need to;
  - X2.2 Transpower can expect to receive a reasonable return for its investments made to provide those electricity transmission services; and
  - X2.3 Transpower will make prudent investments in resilient assets to ensure that it can provide reliable electricity transmission services.
- X3 Transpower's IPP sets the maximum revenues that Transpower can recover from its customers for its electricity transmission services, as well as the minimum quality standards it must meet for those services, for each year of RCP4. The IPP may also include incentives for Transpower to maintain or improve its quality of supply, and this may include revenue-linked measures.<sup>1</sup>
- X4 Transpower is required to provide a base capex proposal for us to consider ahead of setting the IPP.<sup>2</sup> Base capex includes asset replacement and refurbishment, enhancement and development, resilience, business support, and ICT assets. However, the maximum revenue we set for Transpower for each year of RCP4 does not take into account Major Capex proposals (**MCPs**) or a list of base capex projects (**Listed projects**), which we will not consider for approval until sometime in RCP4 or later.

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<sup>1</sup> Commerce Act 1986, section 53M(2).

<sup>2</sup> [Transpower Capital Expenditure Input Methodology \(IM Review 2023\) Amendment Determination 2023](#) [2023] NZCC 39, (13 December 2023) (**Transpower Capex IM Amendment Determination 2023**), clause 2.2.1 and 2.2.2.

- X5 Listed projects and MCPs are assessed during the regulatory period when project timing, scope and/or costs are more certain.<sup>3</sup> The processes for grid investment approval through MCPs and listed project approvals are set out in the Capex IM and sit outside of the IPP setting process we are undertaking here.<sup>4</sup>
- X6 This paper provides our draft decisions for:
- X6.1 key inputs for the RCP4 IPP (length of the regulatory period, base capex allowance, opex allowance, quality standards and grid output measures), as required by the Commerce Act 1986 (**the Act**), the Transpower Capital Expenditure Input Methodology determination (**Capex IM**) and the Transpower Input Methodologies determination (**Transpower IM**)<sup>5</sup>;
  - X6.2 how we will calculate Transpower's smoothed maximum allowable revenue (**SMAR**) for each year of RCP4; and
  - X6.3 Transpower's RCP4 reporting obligations, including requirements to report on performance against the price path, quality standards and grid output measures.
- X7 A summary of our draft decisions for RCP4 is set out in Table X1 and more detail is described in Chapter 3 of this paper.

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<sup>3</sup> Listed projects are transmission asset replacement projects where the estimated project cost is likely to exceed the base capex threshold of \$30 million (clause 1.1.5 of the Capex IM).

<sup>4</sup> Transpower Capex IM Amendment Determination 2023, clause 3.3.3.

<sup>5</sup> Commerce Act ([Transpower Input Methodologies Determination 2010 \[2012\] NZCC 17](#) (29 June 2012, as subsequently amended)(**Transpower IM Determination 2012**); [Transpower Capital Expenditure Input Methodology Determination \[2012\]](#) NZCC 2 (31 January 2012, as subsequently amended)(**Transpower Capex IM Determination 2012**).

## How we have approached the IPP

- X8 On 21 November 2023 Transpower published its RCP4 proposal, which describes how it will operate, maintain and invest in the electricity transmission network.<sup>6</sup> Alongside this proposal, Transpower also submitted a report from GHD Advisory and Castalia (**the Verifier**) setting out an independent verification opinion on Transpower’s RCP4 proposal.<sup>7</sup>
- X9 In assessing Transpower’s proposal, we are guided by whether the proposal is consistent with an expenditure outcome which represents the efficient costs of a prudent supplier of electricity transmission services.<sup>8</sup> This concept is consistent with the purpose of Part 4, which is also a required consideration under the capital expenditure (**capex**) evaluation criteria in the Capex IM.<sup>9</sup>
- X10 In applying this concept, we consider that a ‘prudent supplier’ is a supplier whose planning and performance standards reflect Good Electricity Industry Practice (**GEIP**). A useful definition of GEIP, in relation to electricity transmission services, is found in the Electricity Industry Participation Code 2010 (Code).<sup>10</sup>

## Transpower’s expenditure uplift in RCP4 and other contextual drivers

- X11 Transpower is proposing a significant uplift in its work programme and expenditure for the next five years compared to previous IPP resets.
- X12 Much of the proposed RCP4 work programme involves replacement of assets installed from the middle of the last century onward, when there was major investment made to the grid. As signalled in RCP3, a large volume of these assets have reached the end of their useful lives and will require replacement in RCP4 to maintain current service levels.

<sup>6</sup> Transpower New Zealand Limited “[Regulatory control period 4 proposal April 2025 – March 2030](#)”, (21 November 2023)(**RCP4 Proposal**); and additional supporting material available at: <https://www.transpower.co.nz/our-work/industry/regulation/rcp4/our-proposed-five-year-workplan> .

<sup>7</sup> GHD Advisory and Castalia “[Independent Verification Report – RCP4 base expenditure and service measures 2025-30 proposal Expenditure Proposal Transpower New Zealand Ltd](#)”, (12 September 2023)(**IV report**).

<sup>8</sup> Commerce Commission “[Transpower’s individual price-quality path for 2025 to 2030: Our process, decision-making framework, and approach for setting expenditure allowances, quality standards and the price path](#)”, (9 October 2023)(**Process paper**), p 25-28.

<sup>9</sup> [Transpower Capital Expenditure Input Methodology \(IM Review 2023\) Amendment Determination 2023 \[2023\] NZCC 39](#), (13 December 2023)”, clause 6.1.1(2) and 6.1.1(3).

<sup>10</sup> ‘Good electricity industry practice’ is defined in Part 1 of the Code as: **good electricity industry practice** in relation to transmission, means the exercise of that degree of skill, diligence, prudence, foresight and economic management, as determined by reference to good international practice, which would reasonably be expected from a skilled and experienced asset owner engaged in the management of a transmission network under conditions comparable to those applicable to the grid consistent with applicable law, safety and environmental protection. The determination is to take into account factors such as the relative size, duty, age and technological status of the relevant transmission network and the applicable law.

- X13 Over previous regulatory control periods, we have encouraged Transpower to progress its asset health and risk modelling. The modelling provides the evidential basis for refurbishment and renewals; for example, allowing Transpower to identify interventions to extend asset lives based on asset condition data. However, many assets have now reached the end of their useful lives and investment in replacements is necessary.
- X14 Transpower is also facing increasing financing and operating costs due to high interest rates and inflation. Inflation is impacting Transpower's input costs such as labour and technology.
- X15 The concept of financial capital maintenance (**FCM**) underpins our building blocks approach to implementing our regulation. FCM allows a regulated supplier the opportunity to earn normal returns over the lifetime of an investment and provide it with a chance to maintain the financial capital it has invested.
- X16 At the same time, we recognise that any increase to Transpower's maximum allowable revenue will impact consumers through their electricity bills. We are conscious that this will likely add to the cost-of-living pressures consumers are already experiencing. We have considered mitigations for significant price increases, specifically by applying revenue smoothing.

### **We have approved the majority of Transpower's proposed expenditure**

- X17 Transpower is seeking approval for \$4,411.2 million dollars of expenditure over RCP4, which includes:
- X17.1 capex of \$2,449.8 million;<sup>11</sup> and
  - X17.2 opex of \$1,961.4 million (including \$3.8m for a proposed resilience uncertainty mechanism).
- X18 We have reviewed Transpower's proposal and consider \$4,192.5 million of proposed total expenditure to be prudent and efficient, which includes:
- X18.1 capex of \$2,246.5 million (91.7% of proposed capex); and
  - X18.2 opex of \$1,946.0 million (99.4% of proposed opex).

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<sup>11</sup> Other than base capex, this includes \$58.7 million for capitalised leases, \$123.8 million for a proposed resilience uncertainty mechanism and \$100 million for an electrification uncertainty mechanism (capex). In its original proposal Transpower's base capex was \$2,197.2 million. After responding to our RFIs Transpower revised their base capex amount to \$2,167.4 million. We have excluded proposed expenditure for listed projects, which we may approve during RCP4.



- X19 Following our review of the proposal, we had concerns about Transpower’s ability to recruit the necessary staff to deliver its proposed work programme. This concern has resulted in our draft decision to apply a deliverability adjustment to the capex and opex we consider is prudent and efficient.
- X20 Deliverability adjustments to expenditure have been based on Transpower’s estimate of what it believes it can deliver based on recruitment levels. The deliverability adjustments in this draft decision have been based on Transpower’s most recent recruitment progress in attaining its target. The draft decision deliverability adjustments are:
- X20.1 capex of \$111.2 million; and
- X20.2 opex of \$69.0 million.
- X21 Applying the deliverability adjustment has resulted in us approving amounts that are below the expenditure that we consider is prudent and efficient in our draft decision.
- X22 Table X1 sets out a summary of our capex and opex draft decision for each year of RCP4 following the draft decision deliverability adjustments.<sup>12</sup>

**Table X1 Draft decision expenditure amounts following deliverability adjustments (\$ million constant 2022/2023)**

Expenditure category	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	RCP4 total <sup>13</sup>
Capex	453.9	467.9	411.2	398.6	403.6	2,135.2
Opex	372.1	373.2	384.4	380.5	366.7	1,877.0
<b>Total</b>	<b>826.0</b>	<b>841.1</b>	<b>795.7</b>	<b>779.2</b>	<b>770.3</b>	<b>4,012.2</b>

- X23 Over the RCP4 period Transpower will be able to seek additional funds that we have assessed as prudent and efficient, contingent on it demonstrating recruitment progress. These contingent amounts are set out in Table X2.

<sup>12</sup> Note that in the first year of RCP4 we have made capex and opex deliverability adjustments of \$6.5 million and \$13.0 million respectively. The 2025/2026 year deliverability adjustments are not subject to the deliverability reopener.

<sup>13</sup> Note that some numbers in this table may not sum to the totals displayed due to rounding.

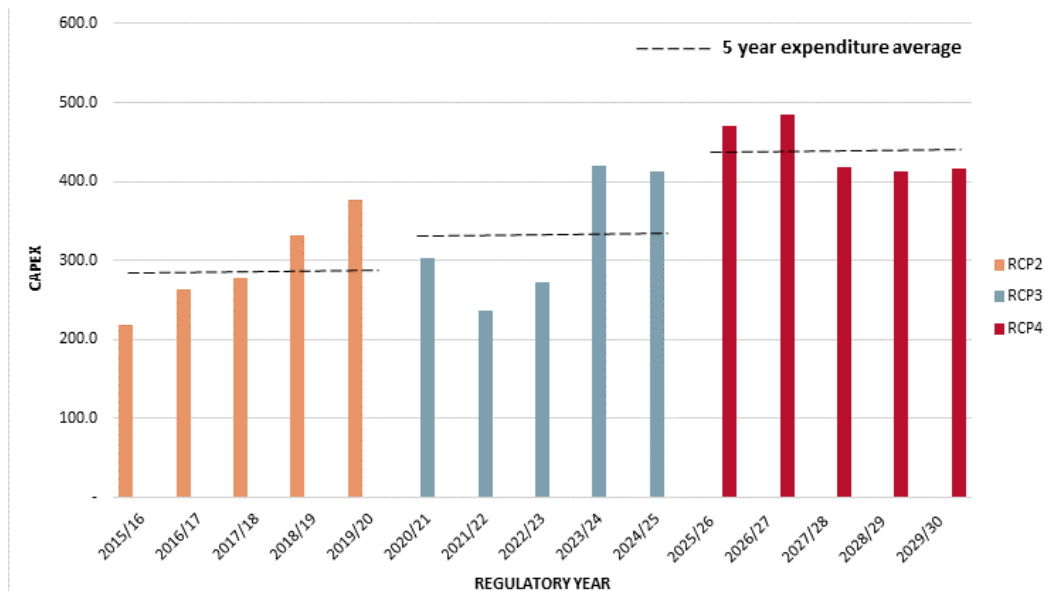
**Table X2 Deliverability expenditure contingent on Transpower’s recruitment (\$ million constant 2022/2023)**

Expenditure category	2025/26	2026/27	2027/28	2028/29	2029/30	RCP4 total <sup>14</sup>
Capex	-	25.2	27.3	27.1	25.1	104.7
Opex	-	11.7	13.3	15.3	15.8	56.1
Total	-	<b>37.0</b>	<b>40.6</b>	<b>42.3</b>	<b>40.8</b>	<b>160.7</b>

### Capital expenditure

- X24 We consider \$2,246.5 million (91.7%) of capex has been justified as prudent and efficient, consistent with GEIP, and meets the requirements of Capex IM.
- X25 Our view is that Transpower’s proposal has been comprehensively reviewed and verified, and that Transpower has sufficiently made the case for the majority of the proposed expenditure using robust analysis, mature asset health and risk models, and up to date asset unit cost data.
- X26 The RCP4 base capex proposed by Transpower is compared with the RCP2 and RCP3 base capex in constant dollar terms referenced to the 2022/2023 financial year in Figure X1 below.

**Figure X1 RCP4 proposed base capex compared to previous regulatory periods (\$ million constant 2022/2023)**



<sup>14</sup> Note that some numbers in this table may not sum to the totals displayed due to rounding.

- X27 We have approved \$64.4 million of resilience capex as base capex (and \$3.8 million as resilience opex) that Transpower proposed to be recovered using a use-it-or-lose-it (**UIOLI**) mechanism. Our view is that Transpower has sufficiently made the economic case for this expenditure to be approved now.
- X28 While we have reached a view that the majority of Transpower’s capex proposal is prudent and efficient, our draft decision is to make \$104.7 million of base capex contingent on Transpower demonstrating that it has recruited sufficient employees to plan and deliver the RCP4 work programme. We discuss this below under “Deliverability”.

### **Operating expenditure**

- X29 We consider \$1,946.0 million (99.4%) of opex has been justified as prudent and efficient, and consistent with GEIP.
- X30 To support the increase in base capex, Transpower is seeking approval for a 20.1% expenditure uplift in opex for RCP4, compared to what it estimates it will spend as opex by the end of RCP3 (\$1,632.6 million).<sup>15</sup>
- X31 Following our review of the proposal we are satisfied that the expenditure is prudent and efficient having considered Transpower’s opex proposal and the Verifier’s review.
- X32 Our view is the expenditure has been comprehensively reviewed and verified, and that Transpower has sufficiently made the case for the majority of the proposed expenditure, using robust analysis, mature asset health and risk models, up to date work order unit cost data, and procurement processes that would likely result in efficient costs.
- X33 While we have reached a view that the majority of Transpower’s opex proposal is prudent and efficient, our draft decision is to make \$56.1 million of opex contingent on Transpower demonstrating that it has recruited sufficient employees to plan and deliver the RCP4 work programme. Applying the deliverability adjustment has resulted in us approving \$1,877.0 million of opex, which is below the \$1,946.0 million that we consider is prudent and efficient. We discuss this below under “Deliverability”.

### **Deliverability**

- X34 Transpower’s proposed expanded work programme for RCP4 will require a large uplift in staffing. It will be recruiting and delivering its work programme at a time of strong competition for skilled resources.

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<sup>15</sup> Note the 20.1% expenditure uplift includes resilience uncertainty mechanism opex of \$3.8 million that Transpower has proposed on a Use-It-Or-Lose-It (UIOLI) basis.

- X35 While Transpower has provided us with an update on its staff recruitment progress, we have remaining concerns it may not achieve the uplift in staff numbers required to deliver the full work plan over the five-year RCP4 period.
- X36 As such Transpower may under-deliver the work programme and, as a result, be inappropriately rewarded with a base capex efficiency incentive for that non-delivery. Also, customers could overpay for transmission costs if Transpower is unable to deliver its capital programme due to resource constraints.
- X37 Given these concerns, and following analysis based on Transpower estimates of what it may deliver over RCP4 and how its recruitment is progressing, we have adjusted Transpower's expenditure allowances. These adjustments are set out in Table X3.

**Table X3 Adjustments to expenditure allowances to mitigate delivery risk  
(\$ million constant 2022/2023)**

Expenditure category	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	RCP4 total
<b>Capex</b>	-6.5	-25.2	-27.3	-27.1	-25.1	-111.2
<b>Opex</b>	-13.0	-11.7	-13.3	-15.3	-15.8	-69.0
<b>Total</b>	<b>-19.5</b>	<b>-37.0</b>	<b>-40.6</b>	<b>-42.3</b>	<b>-40.8</b>	<b>-180.2</b>

- X38 Our draft decision is to also introduce a deliverability reopener to allow additional expenditure based on Transpower's recruitment progress against targets. This is intended to be a relatively streamlined reopener and will be triggered when Transpower applies and provides us with an update of its recruitment progress against its plan.
- X39 Based on an increase in Transpower's recruitment, additional capex and opex funding will be released for the remainder of the RCP4 period and we will adjust the revenues Transpower can recover.
- X40 Our draft decision includes a new annual delivery reporting requirement for Transpower in RCP4. This is intended to provide programme delivery transparency for customers and will be a reputational driver for Transpower to deliver on its proposal.

## We have smoothed Transpower’s revenue to mitigate the price impact on consumers

- X41 Our draft decision is to implement a five-year regulatory period. We have considered whether a shorter period would be appropriate and concluded that the features of a shorter period (a minimum of 4 years), taken as a package would not better meet the Part 4 purpose, than the default regulatory period of five years.<sup>16</sup>
- X42 Our draft decision is to set a smoothed price path with the following growth rates (calculated on a nominal basis, i.e., includes forecast inflation):
- X42.1 for years 1 and 2 of RCP4, 15.43%; and
  - X42.2 for years 3-5 of RCP4, 5.00%.
- X43 Figure X2 illustrates our draft decision for the RCP4 price path based on our draft decisions for the inputs used to calculate the forecast maximum allowable revenue (forecast MAR), which we have turned into a forecast smoothed MAR (forecast SMAR) by applying the rules in the Transpower IM.<sup>17</sup>

**Figure X2 Forecast SMAR and MAR (RCP4)**



- X44 Transpower’s RCP4 total forecast revenue cap is \$5,780 million, a proposed increase of 43% from RCP3.

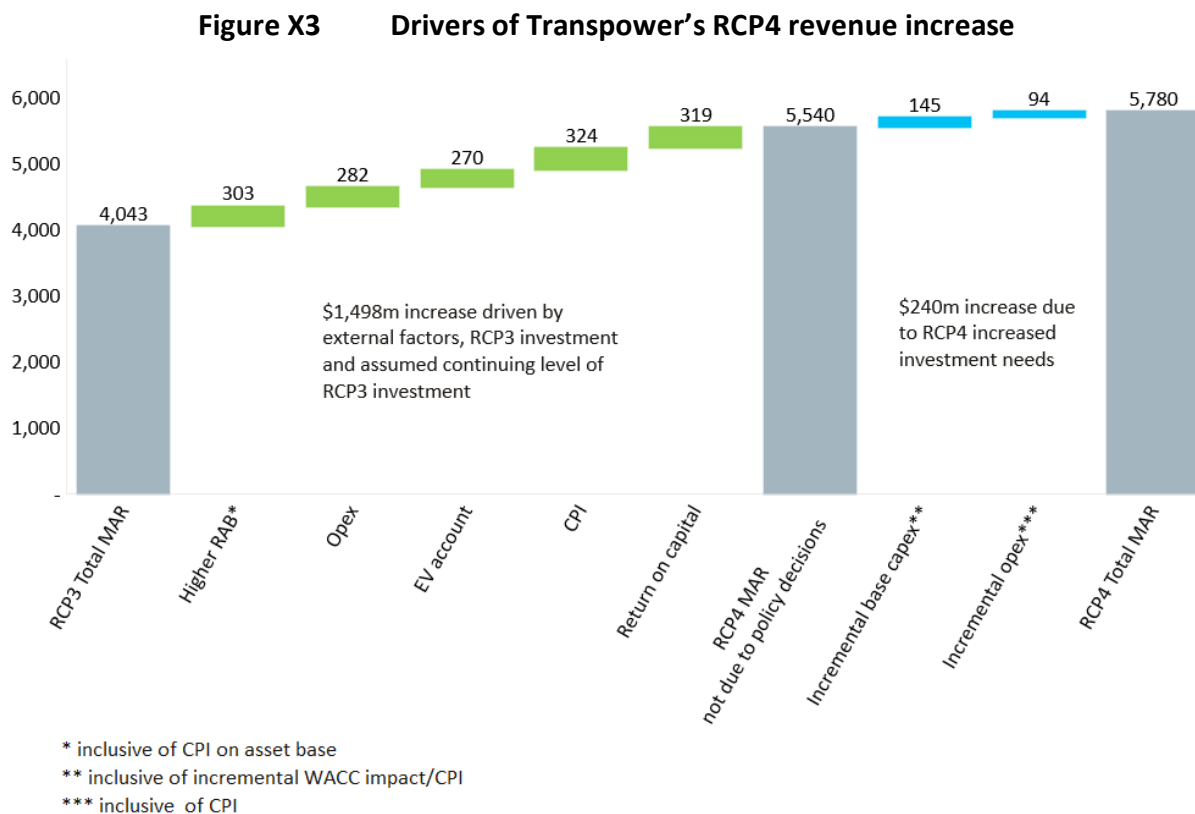
<sup>16</sup> Commerce Act 1986, s 53M(4)-(5).

<sup>17</sup> The maximum allowable revenue is calculated using a “building blocks” approach, where the revenue that Transpower receives is reflective of the prudent and efficient costs of operating their network (including the return on capital for their existing assets). The key building blocks included here are the cost of capital, depreciation, operating expenditure, and tax, less revaluations on their existing assets.

X45 Figure X3 illustrates the factors that influence total RCP4 revenue. As Figure X3 shows, the main drivers of change in the forecast SMAR from RCP3 to RCP4 (which account for approximately \$1,498 million of the total increase) are:

- X45.1 increase in weighted average cost of capital (**WACC**) shown as higher return on capital;
- X45.2 increase in inflation;
- X45.3 higher regulatory asset base value;
- X45.4 additional opex and incentive payments (IRIS);<sup>18</sup> and
- X45.5 return of net under-recovered revenue from RCP3 in the economic value account.

X46 Figure X3 also illustrates that the incremental investment that our draft decision proposes to approve, accounts for approximately \$240 million of the total increase.

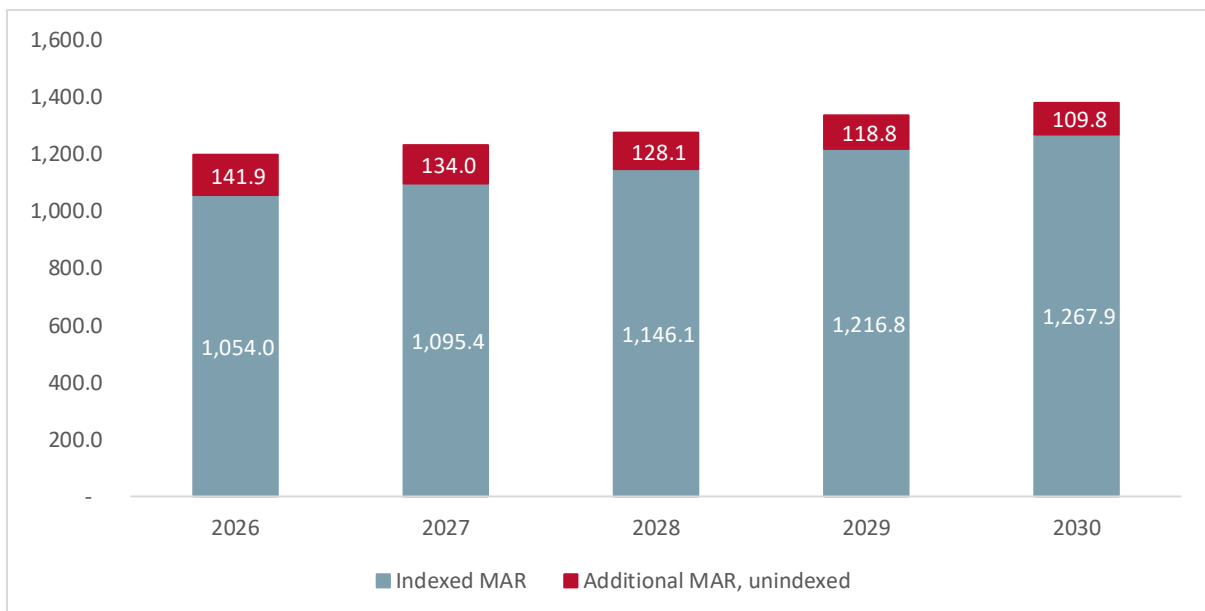


<sup>18</sup> IRIS payments or penalties represent incentive payments or penalties for underspend or overspend on expenditure.

X47 While the annual increases are significant uplifts in nominal terms, our smoothing of the price path will reduce price shocks consumers might face between years in RCP4 if no smoothing were applied. We have balanced this factor against maintaining Transpower's incentives to invest in a safe and reliable network, which is also in the long-term interests of consumers.

X48 In addition, the implementation of our 2023 IM Review decision to index Transpower's regulatory asset base (**RAB**) for inflation has reduced the revenue increase from RCP3 to RCP4. This decision has the effect of smoothing the recovery of capital costs over the asset life. Figure X4 illustrates the impact in RCP4 of indexing the RAB.

**Figure X3 MAR impact of RAB indexation (\$ million nominal)**



### **We are keeping Transpower's grid output measures largely unchanged**

X49 For RCP4 Transpower's proposed package of measures is a refresh of the RCP3 grid output measures and quality standards. Overall, our draft decision is to keep the grid output measures largely unchanged.

X50 Given the significant volume of work Transpower is planning this period, we have adjusted the metrics for some of the grid output measures so that they better align with Transpower's proposed work programme. Our draft decisions seek to ensure Transpower delivers services at a quality demanded by consumers and maintains Transpower's incentives to deliver its work programme efficiently.

X51 Our draft decision is to approve a total revenue at risk of \$90.6 million (1.4%) for the RCP4 revenue-linked grid output measures.

**We are proposing IM amendments to implement RCP4 draft decisions**

- X52 In the course of the IPP reset process, we identified several potential amendments to the IMs that may be necessary to give effect to decisions under consideration during the RCP4 reset and promote the Part 4 purpose in section 52A of the Act more effectively.
- X53 We are considering discrete IM amendments to give effect to four issues under consideration as part of the IPP reset – implementing RAB indexation, deliverability, impact of reopeners on quality standards, and incentive implications on the deposit for new and replacement Cook Strait cables. Further information is provided in the chapters below and the relevant attachments.



**Table X4 Summary of our draft decisions for RCP4**

Ref. no	Policy measure
<b>Price path</b>	
P1	use a price path smoothing profile with a two-year step change of equal percentage amounts for years 1 and 2 of RCP4 and a 5% growth rate per annum for years 3 to 5 of RCP4
P2	maintain the RCP3 approach to the wash-up of forecast pass-through costs and recoverable amounts
P3	maintain the RCP3 approach to enter incentive payment amounts into the EV account to accumulate over RCP4 and to recover the closing RCP4 balance in the EV account across RCP5
P4	require CEO certification for updates to the forecast MAR and forecast SMAR during RCP4 (change from RCP3 approach that required director certification)
P5	apply a Consumer Price Index (CPI) wash-up mechanism for revenue
P6	introduce the RCP4 HVDC transitional EV account adjustment
<b>Capital expenditure (Capex) draft decisions</b>	
C1	approve \$106.7 million of the proposed \$111.7 million in the Enhancement and Development (E&D) base capex portfolio
C2	approve \$67.2 million of the proposed \$74.8 million capex and \$3.8 million of the proposed \$12.2 million opex in resilience expenditure portfolio of base capex and opex
C3	approve \$64.4 million of the proposed capex and \$3.8 million of the proposed \$3.8 million opex in the resilience uncertainty mechanism expenditure portfolio
C4	approve \$494.0 million of the proposed \$509.1 million in the AC substations base capex portfolio
C5	approve \$161.4 million of the proposed \$161.4 million in the HVDC and reactive assets base capex portfolio
C6	approve \$28.9 million of the proposed \$34.7 million business support base capex portfolio
C7	approve \$78.8 million of the proposed \$89.3 million in buildings and grounds base capex portfolio
C8	approve \$695.2 million of the proposed \$695.2 million in the AC and DC transmission lines base capex portfolio
C9	approve \$281.8 million of the proposed \$281.8 million in the secondary assets base capex portfolio
C10	approve \$209.4 million of the proposed \$209.4 million ICT base capex portfolio
C11	use the standard base capex incentive rate for the TransGO Refresh ICT project
C12	approve \$58.7 million of the proposed \$58.7 million for capitalised leases.
<b>Operating expenditure (Opex) draft decisions</b>	
O1	use 2022/23 as the base year to use for the purposes of the Base-Step-Trend
O2	approve \$181.1 million in insurance opex (all of Transpower's proposal)
O3	approve \$317.3 million of the proposed \$320.1 million business support opex
O4	approve \$461.8 million of the proposed \$461.8 million Asset Management & Operations opex
O5	approve \$2.4 million of the proposed \$2.4 million Sustainability opex
O6	approve \$292.3 million of the proposed \$292.3 million ICT opex
O7	approve \$683.5 million of the proposed \$683.5 million grid maintenance opex (all of Transpower's proposal)
<b>Quality standards and grid output performance draft decisions</b>	
QS1	retain measure <b>AH</b> : Asset Health – proportion of each asset class in poor to very poor health
QS2	retain measure <b>AP1</b> : Asset Performance 1 – HVDC capacity availability
QS3	add measure <b>AP1.2</b> : Asset performance 1.2 – HVDC operational capacity. A new reporting-only measure including all HVDC related assets to measure the actual operational capability (with no quality standard nor revenue linking)
QS4	retain measure <b>AP2</b> : Asset Performance 2 – HVAC selected asset availability
QS5	retain measure <b>AP3</b> : Asset Performance 3 – return assets to service within the specified outage time

Ref. no	Policy measure
<b>Quality standards and grid output performance draft decisions (contd.)</b>	
QS6	retain measure <b>AP4</b> : Asset Performance 4 – number of outages for which delay to the planned return to service was communicated within 90 minutes
QS7	remove measure <b>AP5</b> : Asset Performance 5 – N-security reporting
QS8	add measure <b>CS1</b> : Customer service – overall customer satisfaction. A reporting only measure relating to the score given by customers through an annual engagement survey.
QS9	add measure <b>CS2</b> : Customer service– new and enhanced grid connections. A reporting only measure relating to inquiries, investigations and delivery.
QS10	retain measure <b>GP1</b> : Grid Performance 1 – number of unplanned interruptions across six sub-categories
QS11	retain measure <b>GP2</b> : Grid Performance 2 – Average duration of unplanned interruptions across six categories
QS12	add measure <b>GP4</b> : Grid Performance – Energy not served. A reporting only measure including all interruptions, except those caused by customers, that are outside of Transpower’s control
QS13	remove <b>GPM</b> : Grid Performance – number of momentary interruptions
QS14	<b>Normalisation</b> – an adjustment to targets following Commission’s assessment of specific events that have resulted in interruption to service.
QS15	set the total <b>revenue at risk</b> for RCP4 for all measures at \$90,647,101.
QS16	set the allocated <b>revenue at risk</b> for AP1, AP2, GP1, and GP2.
QS16	set the allocated <b>revenue at risk</b> per year for each subcategory of GP1 and GP2.
QS17	retain <b>quality standards</b> for AH, AP1, AP2, GP1 and GP2.
<b>Deliverability</b>	
D1	apply an expenditure adjustment for RCP4
D2	introduce a new deliverability reopener in the Transpower IMs
D3	introduce an annual delivery reporting requirement

# Chapter 1 Introduction

## Introduction

- 1.1 Under Part 4 of the Commerce Act 1986 (the Act), the Commerce Commission is responsible for determining an IPP for the electricity lines services provided by Transpower for RCP4.<sup>19</sup>
- 1.2 The IPP that we determine for RCP4 will set out the forecast revenue that Transpower may receive for providing electricity transmission services over that period, and the level of quality it must provide to its customers.
- 1.3 Under s 53ZC of the Act we may set the IPP using any process and in any way we think fit, but must use our IMs that apply to Transpower.

## Purpose and structure of this paper

- 1.4 The purpose of this paper and our associated Attachments is to:
  - 1.4.1 explain our draft decisions for the Transpower IPP reset for RCP4; and
  - 1.4.2 seek submissions on our draft decisions, which will inform our final decisions for the IPP reset.
- 1.5 A description of each chapter of this paper is set out in Table 1.1 below.

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<sup>19</sup> For the purposes of discussion in this paper, we have applied our draft decision setting a five-year term for RCP4.

**Table 1.1 Structure of this paper**

Section	Title	Description
<b>Chapter 1</b>	<b>Introduction</b>	Sets out the purpose of this paper, what it covers, how it is structured, how you can provide your feedback, and the next steps.
<b>Chapter 2</b>	<b>Context</b>	Discusses the overarching contextual issues which have informed our draft decisions.
<b>Chapter 3</b>	<b>Our draft decisions</b>	Sets out our draft decisions for the RCP4 IPP by decision topics
	<ul style="list-style-type: none"> <li>• Capex</li> </ul>	Sets out our draft decisions relating to base capex.
	<ul style="list-style-type: none"> <li>• Opex</li> </ul>	Sets out our draft decisions relating to opex.
	<ul style="list-style-type: none"> <li>• Work programme deliverability</li> </ul>	Sets out our draft decisions relating to addressing the work programme delivery risk.
	<ul style="list-style-type: none"> <li>• Revenue path design</li> </ul>	Sets out our draft decisions for setting Transpower’s revenue path and various related disclosure requirements.
	<ul style="list-style-type: none"> <li>• Quality standards and grid output measures</li> </ul>	Sets out our draft decisions relating to quality standards and grid output measures.
<b>Chapter 4</b>	<b>IM amendments</b>	Provides a connection to our draft reasons paper on IM amendments that give effect to three discrete issues under consideration in conjunction with the IPP reset.

## Material accompanying this paper

1.6 Table 1.2 explains all the documents in our package of draft decision documents as well as related documents concerning the electricity distribution businesses’ (EDB) default price-path reset and consumer bill impacts.

**Table 1.2 Package of RCP4 draft decision documents**

Document	Title	Description
Draft decision paper (this paper)	Transpower’s individual price-quality path for the regulatory control period commencing 1 April 2025: Draft Decisions (29 May 2024)	Provides the overview of the main drivers, considerations and decisions for this IPP reset. Additional detail on specific topics can be found in the attachments.
Attachment A – Revenue path design	Transpower’s individual price-quality path for the regulatory control period commencing 1 April 2025: Draft Decision: Attachment A – Revenue path design	Provides the detailed context, analysis and draft decisions for revenue path.

Document	Title	Description
Attachment B – Capex	Transpower’s individual price-quality path for the regulatory control period commencing 1 April 2025: Draft Decision: Attachment B – Capex	Provides the detailed context, analysis and draft decisions for capital expenditure.
Attachment C – Opex	Transpower’s individual price-quality path for the regulatory control period commencing 1 April 2025: Draft Decision: Attachment C – Opex	Provide the detailed context, analysis and draft decisions for operating expenditure.
Attachment D – Quality standards and grid output measures	Transpower’s individual price-quality path for the regulatory control period commencing 1 April 2025: Draft Decision: Attachment D – Quality standards and grid output measures	Provide the detailed context, analysis and draft decisions for quality standards and grid output measures.
Attachment E – Deliverability expenditure	Transpower’s individual price-quality path for the regulatory control period commencing 1 April 2025: Draft Decision: Attachment E – Deliverability expenditure	Provide the detailed context, analysis and draft decisions for deliverability expenditure.
IM Amendment draft decision	[DRAFT] Amendments to the Transpower Input Methodologies Determination 2024	Paper sets out the proposed incremental amendments to the input methodologies (IMs) which will apply to Transpower for the electricity lines services it provides, allowing individual price-quality path (IPP) implementation issues to be addressed for RCP4.
Draft IPP Determination 2025	[DRAFT] Transpower Individual Price-Quality Path Determination 2025	Contains the draft legal determination which will enact the IPP when it is finalised in November 2024.
Draft IM Amendment Determination 2024	[DRAFT] Transpower Input Methodologies Amendment Determination 2024	Contains the draft legal determination which will make incremental amendments to the IMs to allow IPP implementation to be addressed for RCP4.
Bill impact explainer	<a href="#">Understanding how changes to line charges may impact your electricity bill</a> webpage	Material aimed at consumers explaining our role and the reset process, and providing indicative bill impacts for consumers in different regions
Draft DPP4 decisions	Default price-quality paths for electricity distribution businesses from 1 April 2025 – Draft decision reasons paper	Details of the draft decisions relating to the default price-quality path reset for price-regulated electricity lines businesses
Deliverability model	RCP4 Deliverability model	Details our calculation of the deliverability expenditure adjustment and the contingent capex and opex Transpower can apply for during RCP4.

## Submissions

- 1.7 You are invited to provide your written views within the timeframes set out below:
- 1.7.1 submissions are due by 5pm, Wednesday 26 June 2024;
  - 1.7.2 cross-submissions on matters raised in submissions by other parties are due by 5pm, Monday 15 July 2024;
  - 1.7.3 please address your email submissions to: Manager, Transpower and Gas c/o [infrastructure.regulation@comcom.govt.nz](mailto:infrastructure.regulation@comcom.govt.nz); and
  - 1.7.4 please include “Transpower IPP 2025 – Draft decision” in the subject line of your email. We prefer responses to be provided in a file format suitable for word processing, in addition to PDF file format.

## Requests for confidentiality

- 1.8 While we discourage requests for non-disclosure of submissions so that all information can be tested in an open and transparent manner, we recognise that there may be cases where parties that make submissions wish to provide information in confidence. We offer the following guidance:
- 1.8.1 if it is necessary to include confidential material in a submission, the information should be clearly marked, with reasons why that information is confidential;
  - 1.8.2 where commercial sensitivity is asserted, submitters must explain why publication of the information would be likely to unreasonably prejudice their commercial position or that of another person who is the subject of the information;
  - 1.8.3 both confidential and public versions of the submission should be provided; and
  - 1.8.4 the responsibility for ensuring that confidential information is not included in a public version of a submission rests entirely with the party making the submission.<sup>20</sup>

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<sup>20</sup> Parties can also request that we make orders under section 100 of the Act in respect of information that should not be made public. Any request for a section 100 order must be made when the relevant information is supplied to us, and it must identify the reasons why the relevant information should not be made public. We will provide further information on section 100 orders if requested by parties. A key benefit of such orders is to enable confidential information to be shared with specified parties on a restricted basis for the purpose of making submissions. Any section 100 order will apply for a limited time only as specified in the order. Once an order expires, we will follow our usual process in response to any request for information under the Official Information Act 1982.

- 1.9 We ask that you provide multiple versions of your submission if it contains confidential information or if you wish the published electronic copies to be ‘locked’. This is because we intend to publish all submissions on our website. Where relevant, please provide both an ‘unlocked’ electronic copy of your submission, and a clearly labelled ‘public version’.

## Our next steps

- 1.10 The indicative dates for our next steps in the IPP reset process are set out in Table 1.3 below.

**Table 1.3 Indicative dates for our IPP reset process**

Indicative date	Process step
<b>26 June 2024</b>	Submissions due on our RCP4 draft decision
	Technical submissions due on our draft IPP determination for RCP4
<b>15 July 2024</b>	Cross-submissions due on our draft decision and draft IPP determination
<b>August 2024</b>	Final decisions on expenditure allowances, quality standards, compliance obligations, IPP-specific information disclosure requirements, and the revenue path design published
	Revised draft RCP4 IPP determination published for information only, subject only to revenue path updates to come later for the final Transpower RCP4 WACC in October 2024
<b>September 2024</b>	Draft information request provided to Transpower to calculate the forecast maximum allowable revenue (forecast MAR) for RCP4
<b>October 2024</b>	Final information request issued to Transpower to calculate the building blocks forecast MAR for RCP4 and the maximum allowable revenue for each pricing year of RCP4
<b>October 2024</b>	Transpower RCP4 WACC published
<b>October 2024</b>	Transpower’s values for the forecast MAR and for the forecast SMAR for RCP4 to be provided by Transpower to the Commission
<b>November 2024</b>	Final IPP determination and companion paper published

## Chapter 2 Context

### Purpose of this chapter

- 2.1 This chapter discusses:
- 2.1.1 Our role in regulating Transpower; and
  - 2.1.2 the wider context for our decisions for RCP4, and how this context has changed since RCP2 and RCP3.

### Our role in regulating Transpower

- 2.2 Transpower is a state-owned enterprise that owns and operates New Zealand's high voltage electricity transmission network. Transpower transmits electricity from generators to substations at grid exit points (**GXPs**) where the electricity is supplied to local electricity distribution businesses (**EDBs**) or large industrial consumers.
- 2.3 Transpower also manages the real-time coordination of the power system as the system operator. Transpower provides system operator services under its system operator service provider agreement (**SOSPA**) with the Electricity Authority. Costs associated with this function are not included in the revenue allowances we set.
- 2.4 Transpower is regulated under Part 4 of the Act as it has a natural monopoly in the market for electricity transmission services. The Part 4 regime seeks to promote the long-term benefit of consumers of regulated services such as electricity line services.
- 2.5 Under Part 4, Transpower is subject to Individual price-quality path regulation. The IPP we set under this regulation determines, among other things, the maximum revenue that Transpower can recover from its customers for the regulatory period, and the minimum quality standards it must meet, for each year within the regulatory period.<sup>21</sup> The IPP may also include incentives for Transpower to maintain or improve its quality of supply, and this may include revenue-linked measures.<sup>22</sup>
- 2.6 Transpower is required to provide a base capex proposal for us to consider ahead of setting the IPP.<sup>23</sup> Base capex includes asset replacement and refurbishment, business support, and ICT assets. It excludes major capex projects (MCPs). The process for grid investment through MCPs is set out in the Capex IM and sits outside the IPP price-setting process we are undertaking here.<sup>24</sup>

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<sup>21</sup> Commerce Act 1986, sections 53ZC and 53M(1).

<sup>22</sup> Commerce Act 1986, section 53M(2).

<sup>23</sup> Transpower Capex IM Amendment Determination 2023, clause 2.2.1 and 2.2.2.

<sup>24</sup> Transpower Capex IM Amendment Determination 2023, clause 3.3.3.



- 2.7 On 21 November 2023, Transpower published its RCP4 proposal which describes how it will operate, maintain and invest in the electricity transmission network.<sup>25</sup> Alongside this proposal, Transpower also submitted a report from the Verifier setting out an independent verification opinion on Transpower’s RCP4 proposal.<sup>26</sup>
- 2.8 Our role in setting this IPP is to ensure that Transpower’s base investment promotes the long-term benefit of consumers, using the regulatory tools available to us. More detail on our role can be found in our process, framework and approach paper of 9 October 2023 (**Process paper**).<sup>27</sup>
- 2.9 In reviewing Transpower’s proposal and reaching our draft decisions we apply the Part 4 purpose, the Capex IM and the evaluation criteria set out in our decision-making framework. We also take into account the Verifier’s recommendations to us and our initial stakeholder consultation process through our Process paper and our issues paper of 25 January 2024 (**Issues paper**).<sup>28</sup>
- 2.10 Timing is an important factor in Transpower’s proposal, to ensure the right investment is made at the right time so that customers and ultimate consumers do not bear unnecessary costs. Transpower states that the expenditure proposed in RCP4 is necessary at this reset and cannot be deferred to future periods. We consider the impact that investment decisions now will have on future generations of consumers.
- 2.11 Where uncertainties around investment decisions remain, there are opportunities for Transpower to seek our approval for additional revenue within the regulatory period, using IPP reopener processes, once there is more certainty about the benefit of an investment.<sup>29</sup>
- 2.12 RCP4 will be the first full regulatory period for which Transpower’s regulated revenues will flow through to customer prices using the Transmission Pricing Methodology (**TPM**).<sup>30</sup> While we do not regulate the customer allocation of Transpower’s revenues, we consider the impacts of Transpower’s proposal on its customers (and ultimately on consumers).

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<sup>25</sup> Transpower NZ Ltd., RCP4 Proposal; and additional supporting material available at: <https://www.transpower.co.nz/our-work/industry/regulation/rcp4/our-proposed-five-year-workplan>.

<sup>26</sup> IV report.

<sup>27</sup> Commerce Commission, Process paper.

<sup>28</sup> Commerce Commission, Process paper; “[Transpower’s individual price-quality path for the next regulatory control period – Issues paper](#)”, (25 January 2024) (**Issues paper**).

<sup>29</sup> The Transpower price-quality path reopener processes were updated in the 2023 IM Review.

<sup>30</sup> A description of the TPM changes can be found at <https://www.transpower.co.nz/our-work/industry/gridpricing/transmission-pricing-methodology/about-tpm>

## The RCP4 context and the contrast with the previous reset

- 2.13 Our reset of Transpower's price-quality path is taking place at a time when consumers are facing living cost pressures due to higher interest rates and inflation. Alongside these general trends, Transpower is proposing a large increase in expenditure for RCP4.
- 2.14 Transpower's proposed capex for RCP4 is largely driven by the replacement and refurbishment of infrastructure reaching its end of life. Transpower's proposal highlights that the grid is ageing, with significant investments made from the 1950s to the 1970s. These assets are degrading and will require replacement or refurbishment in the next 10 to 15 years.
- 2.15 Transpower's proposed increased revenue for RCP4, combined with our coincident default price path reset for electricity distribution businesses, will ultimately mean an increase in the network component of consumer energy bills.
- 2.16 In reaching our draft decision we have been mindful of these cost pressures. We have focused on ensuring that the expenditure that Transpower is proposing is necessary to continue to deliver a safe and reliable supply of electricity to New Zealanders.

### Inflationary pressures

- 2.17 Businesses are experiencing higher interest rates and increasing asset and labour costs. In its proposal, Transpower notes that inflationary pressures are reflected in its labour costs, technology, and asset availability across all parts of the supply chain. We take interest rate changes into account when forecasting the regulated cost of capital. For RCP4 we are forecasting a cost of capital of 7.37%, versus the 4.57% which applied over RCP3.<sup>31</sup>
- 2.18 These factors have a significant impact on Transpower's revenue requirements. In the next chapter we discuss how we have smoothed revenue to mitigate the impact of these factors on New Zealanders.

### Decarbonisation and electrification

- 2.19 RCP4 will commence at a time of significant challenges in the power sector, driven by decarbonisation and the anticipated electrification of fossil fuel use. Uncertainty surrounds the scale, location, and timing of increased electricity demand, and generation developments to meet that demand. Transpower has reported it is experiencing a significant uplift in new renewables generation grid connection enquiries.

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<sup>31</sup> A change in the cost of capital can have a significant impact on Transpower's revenue, as this determines the allowed rate of return for Transpower on the value of assets in its regulated asset base.

- 2.20 Transpower reports it is experiencing increased asset costs as global transmission equipment manufacturers are seeing unprecedented demand due to renewables driven electrification.
- 2.21 Transpower has been evolving its project and programme cost estimation processes over RCP3. More accurate cost estimation processes mean we can be more confident that the revenue limits we set are at the right level, encouraging neither over- nor under-estimating of costs.

### **Resourcing and deliverability**

- 2.22 Decarbonisation of energy systems is a global pursuit and demand for a skilled workforce is increasing, putting upward pressure on resourcing costs and availability, and impacting deliverability of planned projects.
- 2.23 Transpower's forecast work programme for RCP4 is materially higher than the work it has undertaken during RCP3. Transpower notes that to complete its RCP4 work programme, it will require significant growth in its own workforce as well as growth of local engineering consultants, service providers, and the use of specialist contractors from offshore.<sup>32</sup>
- 2.24 In the next chapter we discuss our assessment of Transpower's ability to deliver its forecast work programme.

### **Climate impacts and resilience**

- 2.25 Climate change effects are also focussing electricity suppliers and Transpower to address network resilience issues, as weather patterns and risk exposures change. This will affect existing network assets and future plans.
- 2.26 After Cyclone Gabrielle and the Auckland floods in early 2023, consumers are increasingly concerned about the electricity sector's resilience to extreme weather events. The Consumer Advocacy Council's consumer sentiment survey reported an 8% increase in households, and 9% increase in businesses from 2022 to 2023, concerned about the resilience of the electricity sector.
- 2.27 In our setting of Transpower's IPP, we have considered the inclusion of prudent and efficient costs for resilience initiatives. This includes considering if expenditure levels need to change due to any increased costs of resilience to climate change, where these are based on robust forecasts.

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<sup>32</sup> Transpower NZ Ltd, RCP4 Proposal, p 13.

## Overview of our decision-making framework

2.28 Section 52A of the Act sets out the purpose of Part 4 of the Commerce Act 1986 (**Part 4 purpose**):

- (1) The purpose of this Part is to promote the long-term benefit of consumers in markets referred to in section 52 by promoting outcomes that are consistent with outcomes produced in competitive markets such that suppliers of regulated goods or services—
- (a) have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
  - (b) have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and
  - (c) share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and
  - (d) are limited in their ability to extract excessive profits.

2.29 Under Part 4, Transpower is subject to two types of regulation:

2.29.1 individual price-quality path regulation: The IPP we set under this regulation determines, among other things, the maximum prices/revenues that Transpower can recover from its customers, for each regulatory period, and the minimum quality standards it must meet, for each year within the regulatory period;<sup>33</sup> and

2.29.2 information disclosure (**ID**) regulation: This form of regulation enables us to set requirements on Transpower to publicly disclose certain information to allow interested persons to assess whether the Part 4 purpose is being met.<sup>34</sup>

2.30 These regulatory mechanisms are supported by IMs which set out the underlying rules, requirements, and processes that must be applied to those forms of regulation. The purpose of IMs is to provide certainty to regulated suppliers and consumers about the rules, requirements and processes applying to Part 4 regulation.<sup>35</sup>

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<sup>33</sup> Commerce Act 1986, s 53ZC.

<sup>34</sup> Commerce Act 1986, s 53C.

<sup>35</sup> Commerce Act 1986, s 52R.

- 2.31 There are two IM determinations that apply to Transpower:<sup>36</sup>
- 2.31.1 Transpower IM: Transpower IM Determination 2010 [2012] NZCC 17. It sets out methodologies for: cost allocation, asset valuation, treatment of taxation, cost of capital, specification of price, Incremental Rolling Incentive Scheme (IRIS), and reconsideration of the IPP; and
- 2.31.2 Capex IM: Transpower Capex IM Determination 2012 [2012] NZCC 2. The two major functions of the Capex IM are to provide for the scrutiny of Transpower’s proposed and actual investment, and to incentivise Transpower to deliver those investments efficiently.<sup>37</sup>
- 2.32 In assessing Transpower’s proposal, we are guided by whether the proposal is consistent with an expenditure outcome which represents the efficient costs of a prudent supplier of electricity transmission services. This concept is consistent with the purpose of Part 4 and is also a required consideration under the capex evaluation criteria in the Capex IM.<sup>38</sup>
- 2.33 In applying this concept, we consider that a ‘prudent supplier’ is a supplier whose planning and performance standards reflect Good Electricity Industry Practice (**GEIP**). A useful definition of GEIP, in relation to electricity transmission services, is found in the Electricity Industry Participation Code 2010 (**Code**).<sup>39</sup>
- 2.34 Our decision-making framework is set out in more detail in our process, decision-making framework, and approach paper.<sup>40</sup>

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<sup>36</sup> Commerce Act (Transpower Input Methodologies) Determination 2010 [2012] NZCC 17 (29 June 2012, as subsequently amended); Transpower Capital Expenditure Input Methodology Determination [2012] NZCC 2 (31 January 2012, as subsequently amended); Both determinations were recently reviewed in the 2023 IM Review.

<sup>37</sup> Commerce Commission “[Transpower capex input methodology review – decisions and reasons](#)” (29 March 2018), para X9.2.

<sup>38</sup> Commerce Commission, Transpower Capex IM Amendment Determination 2023, clause 6.1.1(2) and 6.1.1(3).

<sup>39</sup> ‘Good electricity industry practice’ is defined in Part 1 of the Code as: good electricity industry practice in relation to transmission, means the exercise of that degree of skill, diligence, prudence, foresight and economic management, as determined by reference to good international practice, which would reasonably be expected from a skilled and experienced asset owner engaged in the management of a transmission network under conditions comparable to those applicable to the grid consistent with applicable law, safety and environmental protection. The determination is to take into account factors such as the relative size, duty, age and technological status of the relevant transmission network and the applicable law.

<sup>40</sup> Commerce Commission, Process paper.

## Chapter 3 Our draft decisions

### Purpose of this chapter

3.1 This chapter sets out our draft decisions for the RCP4 IPP for each of the decision topics.

### We have approved the majority of Transpower's proposed expenditure

3.2 We have reviewed Transpower's expenditure proposal and have assessed that the capex and opex amounts set out in Table 3.1 are prudent and efficient and consistent with GEIP.

**Table 3.1 Summary of reviewed prudent and efficient expenditure  
(\$ million constant 2022/2023)**

Expenditure category	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	RCP4 total <sup>41</sup>
<b>Capex</b>	460.4	493.1	438.5	425.7	428.7	<b>2,246.5</b>
<b>Opex</b>	385.1	384.9	397.7	395.8	382.5	<b>1,946.0</b>
<b>Total</b>	<b>845.5</b>	<b>878.0</b>	<b>836.2</b>	<b>821.5</b>	<b>811.2</b>	<b>4,192.5</b>

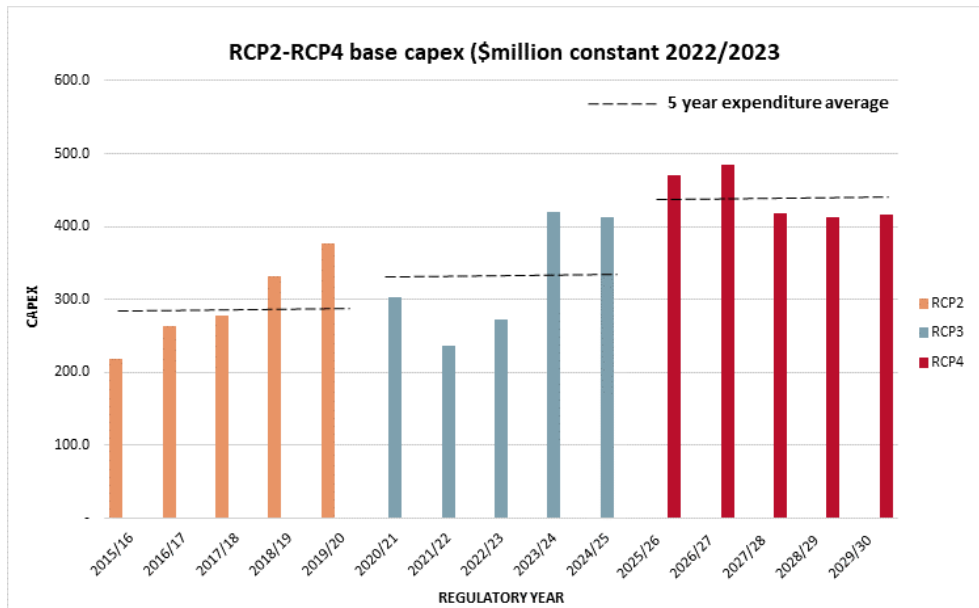
3.3 In the next sections we summarise our review of the proposed RCP4 capex and opex and discuss how we have addressed deliverability issues in this draft decision.

### Capex

3.4 Transpower's has proposed a 32% uplift for RCP4 compared to what it estimates it will spend as base capex by the end of RCP3 (\$1,640.6 million). Figure 3.1 shows the capex comparisons of RCP2, RCP3 and what Transpower has proposed for RCP4.

<sup>41</sup> Note that some numbers in tables may not sum to the totals displayed due to rounding.

**Figure 3.1 RCP4 proposed base capex compared to previous regulatory periods**



- 3.5 Transpower considers that the expenditure uplift is necessary to maintain existing service levels by replacing assets that are at or near end-of-life, and by investing in mitigations to improve network resilience due to an increase in climate driven major events.
- 3.6 Transpower is also experiencing increased asset costs as global transmission equipment manufacturers are seeing unprecedented demand due to renewables driven electrification.
- 3.7 We have reviewed Transpower’s full capex proposal that includes the base capex it has proposed as Use-It-Or-Lose-It capex, for resilience and customer electrification. Following this review, we consider that \$2,246.5 million of proposed capex is prudent and efficient, consistent with GEIP, and meets the Capex IM assessment criteria.
- 3.8 Following our review of the proposal, we had concerns about Transpower’s ability to recruit the necessary staff to deliver its proposed work programme. This concern has resulted in us applying a deliverability adjustment to the capex we consider is prudent and efficient. We discuss how we addressed deliverability issues in our deliverability attachment.
- 3.9 Deliverability expenditure adjustments have been based on Transpower’s estimate of what it believes it can deliver based on recruitment levels. The deliverability adjustments in this draft decision have been based on Transpower’s most recent recruitment progress in attaining its target. The draft decision deliverability capex adjustment is \$111.2 million.

- 3.10 Applying the deliverability adjustment has resulted in us approving \$2,135.2 million of capex which is below the \$2,246.5 million that we consider is prudent and efficient.
- 3.11 Transpower will be able to seek additional capex up to the amount we consider is prudent and efficient, triggered when it applies for, and provides us with, an update of its recruitment progress against its plan.

*Our review of the capex proposal*

- 3.12 Transpower's draft proposal was reviewed by the Verifier that has provided us with good insight into Transpower's policies and processes, and how these have been used to inform and underpin proposed expenditure.
- 3.13 Our view is that the proposal has been comprehensively reviewed and verified, and that Transpower has sufficiently made the case for the majority of the proposed expenditure using robust analysis, mature asset health and risk models, and up to date asset unit cost data. The Verifier report has greatly assisted us in our review.
- 3.14 Transpower set up asset health and network risk modelling initiatives following our RCP3 decision. These models have been used by Transpower to underpin their replacement and renewals expenditure proposal rather than relying solely on asset age.
- 3.15 Transpower has also significantly advanced its understanding of resilience risk, risk consequence, and economic measures to justify mitigations, and proposed resilience expenditure in a separate base capex programme which we have largely approved.
- 3.16 Following our review of the proposal we consider that \$2,123.4 million of the proposed \$2,167.4 million of base capex (which includes \$67.2 million for resilience capex), and \$58.7 million for capitalised leases is prudent and efficient, consistent with GEIP, and meets the requirements of the Capex IM.
- 3.17 In addition to resilience expenditure proposed as part of base capex, Transpower has proposed resilience uncertainty mechanism (**UM**) expenditure, where it was less certain of either the need, mitigation solution, or solution cost. Transpower sought a pre-approved fund that it could access on a UIOLI basis.
- 3.18 We consider that Transpower has sufficiently demonstrated that \$64.4 million of resilience UM capex that it proposed as UIOLI capex is economic. We consider that this capex is prudent and efficient, is consistent with GEIP and meets the Capex IM evaluation criteria.



- 3.19 Resilience UM expenditure where there are high priority exposure mitigations should be progressed by Transpower. For resilience UM expenditure we have not approved, we encourage Transpower to further develop its business cases and economic justifications and utilise the mid-period reopener process.
- 3.20 Table 3.2 summarises the proposed Transpower capex and the capex we have reviewed as being prudent and efficient, for each of the key capex programmes, and our conclusions following our resilience expenditure review in Table 3.3.

**Table 3.2 Capex review conclusions by expenditure programme  
(\$ million constant 2022/2023)**

Expenditure programme	RCP4 Proposal <sup>42</sup>	Prudent and efficient
AC transmission lines	\$695.2	\$695.2
AC substations	\$509.1	\$494.0
HVDC and reactive assets	\$161.4	\$161.4
Secondary assets	\$281.8	\$281.8
Buildings and grounds	\$89.3	\$78.8
E&D capex	\$111.7	\$106.7
ICT capex	\$209.4	\$209.4
Business support capex	\$34.7	\$28.9
Capitalised leases	\$58.7	\$58.7
<b>Total</b>	<b>\$2,151.4</b>	<b>\$2,114.9</b>

**Table 3.3 Resilience expenditure review conclusions  
(\$ million constant 2022/2023)**

Expenditure programme	RCP4 Proposal	Prudent and efficient
<b>Resilience expenditure</b>	\$75.0 (capex)	\$67.2 (capex)
	\$12.2 (opex)	\$3.8 (opex)
<b>Resilience UM expenditure</b>	\$123.8 (capex)	\$64.4 (capex)
	\$3.8 (opex)	\$3.8 (opex)
<b>Total</b>	<b>\$198.8 (capex)</b>	<b>\$131.6 (capex)</b>
	<b>\$16.0 (opex)</b>	<b>\$7.6 (opex)</b>

<sup>42</sup> Following the verification process, Transpower updated its proposal to include customer engagement and Verifier feedback; incorporate new information and CPI changes; and revise proposed spend on proactive resilience work following the extreme weather events in early 2023.

- 3.21 You can find further detail on our draft decisions relating to Transpower's RCP4 base capex in our draft decision paper: Attachment B—Capex.
- 3.22 In view of our draft decision to approve such a significant increase in the base capex allowance for RCP4, we also discuss below under "Deliverability" the risk of Transpower not being able to deliver on its base capex programme.

### **Opex**

- 3.23 Transpower proposed \$1,961.4 million of opex, including resilience uncertainty mechanism opex of \$3.8 million that Transpower has proposed on a UIOLI basis.
- 3.24 We reviewed the proposed expenditure and consider \$1,946.0 million (99.4%) of opex is prudent and efficient and consistent with GEIP.
- 3.25 Following our review of the proposal, we had concerns about Transpower's ability to recruit the necessary staff to deliver its proposed work programme. This concern has resulted in us applying a deliverability adjustment to the opex we consider is prudent and efficient. We discuss how we addressed deliverability issues in our deliverability attachment.
- 3.26 Deliverability expenditure adjustments have been based on Transpower's estimate of what it believes it can deliver based on recruitment levels. The deliverability adjustments in this draft decision have been based on Transpower's most recent recruitment progress in attaining its target. The draft decision deliverability opex adjustment is \$69.0 million.
- 3.27 Applying the deliverability adjustment has resulted in us approving amounts that are below the expenditure that we consider is prudent and efficient in our draft decision.
- 3.28 Applying the deliverability adjustment has resulted in us approving \$1,877.0 million of opex, which is below the \$1,946.0 million that we consider is prudent and efficient.
- 3.29 Transpower will be able to seek additional capex up to the amount we consider is prudent and efficient, triggered when it applies and provides us with an update of its recruitment progress against its plan.
- 3.30 Table 3.4 summarises the proposed opex, and the expenditure that we have revised and consider is prudent and efficient by expenditure category.

**Table 3.4 Proposed and reviewed opex by category  
(\$ million constant 2022/2023)**

Expenditure category	Proposed expenditure	Prudent and efficient
Preventive Maintenance	232.6	226.1
Predictive Maintenance	428.2	428.2
Corrective Maintenance	23.9	23.9
Proactive Maintenance	5.4	5.4
Resilience	12.2	7.6 <sup>43</sup>
Asset Management and Operations	461.8	461.8
Sustainability	2.4	2.4
Business Support	320.1	317.3
ICT Opex	232.6	234.9
ICT Software as a Service	57.4	57.4
Insurance	181.1	181.1
<b>Total</b>	<b>1,957.6</b>	<b>1,946.0</b>

- 3.31 To support its proposed increase in base capex, Transpower sought approval for \$1,961.4 million (including \$3.8 million for a proposed resilience uncertainty mechanism) of operating expenditure over RCP4, consisting of eight separate expenditure programmes. This is a 20.1% expenditure uplift for RCP4 compared to what Transpower estimates it will spend as opex by the end of RCP3 (\$1,632.6 million).
- 3.32 The Verifier reviewed and accepted that Transpower's proposed \$1,797.6 million (\$ constant 2021/2022) of opex was prudent and efficient, consistent with GEIP and met the Capex IM requirements where relevant.

<sup>43</sup> This resilience opex amount of \$7.6 million includes resilience base opex of \$3.8 million and resilience uncertainty mechanism opex proposed on a UIOLI basis of \$3.8 million. The review of the resilience UM opex is discussed in Attachment B – Capex, where we have carried out a detailed assessment of Transpower's resilience programme.

- 3.33 In assessing the opex steps and trends, we tested the Verifier's report to ascertain whether its approach, analysis, and conclusions were consistent with the evaluation criteria of the Capex IM. We also carried out our own review of more material components of Transpower's proposal and where the proposed expenditure was materially different to what was reviewed and verified by the Verifier.
- 3.34 The areas we have focused on are:
- 3.34.1 Transpower's proposed base year for the purposes of its base-step-trend forecasting methodology;
  - 3.34.2 whether Transpower's proposed replacement and refurbishment capex reduces Transpower's grid maintenance opex; and
  - 3.34.3 whether Transpower's proposed resilience expenditure reduces Transpower's insurance opex.

*Transpower's base year*

- 3.35 We have concluded that Transpower's proposed use of the 2022/2023 base year was likely to result in prudent and efficient expenditure values. The proposed total base year opex is consistent with its historical opex profile and the use of most recent actual expenditure is a reasonable approach as it reflects the most up-to-date costs. The IRIS mechanism also provides a time-constant incentive for Transpower to pursue efficient expenditure and prevents Transpower from inflating its base level of opex.

*Whether Transpower's proposed replacement and refurbishment capex reduces Transpower's grid maintenance opex*

- 3.36 We consider Transpower has sufficiently explained that, while increased asset replacements and refurbishments are necessary, a large number of ageing assets still need to be maintained.
- 3.37 We spot checked its asset management plan reflected this increasing asset age and considered Transpower's asset health models inform grid maintenance so this is likely to be informed by risk and considers an opex/capex trade-off. We are satisfied that Transpower has established the need for its grid maintenance even with the increase asset replacement and refurbishment.

*Whether Transpower's proposed resilience expenditure reduces Transpower's insurance opex*

- 3.38 We considered Transpower has justified its insurance expenditure and sufficiently explained the differences between its resilience expenditure and insurance. It explained that resilience was used to minimise outage impact resulting from an event while insurance is applied to replacing or repairing assets damaged by an event. We consider the two expenditures are utilised for different purposes and are both reasonably required.
- 3.39 We have made reductions in its preventive maintenance programme to address a pricing error which had resulted in higher forecasted expenditure in its proposal,<sup>44</sup> and in its business support programme for costs related to the preparation for RCP5, as we did not sight evidence that justified the additional uplift.
- 3.40 We have allowed an increase to Transpower's Information Services and Technology (IST) opex for information and communications technology costs related to its TransGO project,<sup>45</sup> due to increased project forecast certainty resulting in a higher forecast amount. We assess that this change was evidenced and justified based on additional information and explanations received from Transpower.<sup>46</sup>
- 3.41 Key drivers for the proposed opex uplift for RCP4 include the increasing age of the asset base and associated decrease in asset condition, higher staff numbers to support the larger capex work programme, and higher service provider costs. Transpower's insurance costs have also increased in response to climate change exposures.
- 3.42 Our view is that the proposal has been comprehensively reviewed and verified, and that Transpower has sufficiently made the case for the majority of the proposed expenditure, using robust analysis, mature asset health and risk models, up to date work order unit cost data, and procurement processes that would likely result in efficient costs.
- 3.43 We consider that this expenditure has been justified as prudent and efficient, is consistent with GEIP, and meets the requirements of the Capex IM, where relevant.
- 3.44 You can find more detailed information on our assessment of Transpower's opex proposal in our Draft Decision Attachment C - Opex.

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<sup>44</sup> This is explained in Attachment C – Opex.

<sup>45</sup> TransGO is the national telecommunications network that underpins all the communications network services used by Transpower. This project refreshes the communications infrastructure.

<sup>46</sup> We discuss our reasoning in Attachment C – Opex.

## **Work programme deliverability**

- 3.45 Transpower's proposed expanded work programme for RCP4 will require a large uplift in staffing. It will be recruiting at a time of strong competition for skilled resources from across the electricity sector and from other infrastructure sectors as they decarbonise, and from overseas jurisdictions that may offer more competitive salaries.
- 3.46 While Transpower has provided us with an update on its staff recruitment progress, we have remaining concerns it may not achieve the uplift in full-time equivalent staff (FTE) numbers required to deliver the full work plan over the five-year RCP4 period.
- 3.47 As we consider that the majority of Transpower's expenditure is prudent and efficient, our concern is focussed on Transpower's ability to deliver the work rather than the nature of the expenditure.
- 3.48 If Transpower is unable to recruit the necessary staff to deliver the RCP4 work programme, it may under-deliver and, as a result, be rewarded with a base capex efficiency incentive for that non-delivery. This poses a dual risk to customers in that they would overpay for transmission costs, and they might experience an increased risk of a deteriorating network condition in future periods as a result of the work being delayed or not being delivered.
- 3.49 The financial cost to consumers rather than the network risk from under delivery is our primary concern. To the extent that Transpower is resource constrained, we expect that it will prioritise investment in the assets that are most impactful in terms of maintaining a quality of service demanded by consumers. Our grid output measures are designed to support this objective.
- 3.50 Given these concerns, and following analysis based on Transpower estimates of what it may deliver over RCP4 and how its recruitment is progressing, we have made adjustments to Transpower's expenditure allowances. These adjustments are set out in Table 3.5.

**Table 3.5 Contingent adjustments to expenditure allowances to mitigate delivery risk (\$ million)**

Expenditure category	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	RCP4 total <sup>47</sup>
<b>Capex</b>	-	-25.2	-27.3	-27.1	-25.1	-104.7
<b>Opex</b>	-	-11.7	-13.3	-15.3	-15.8	-56.1
<b>Total</b>	-	<b>-37.0</b>	<b>-40.6</b>	<b>-42.3</b>	<b>-40.8</b>	<b>-160.7</b>

- 3.51 Coupled with this adjustment, we are introducing a new deliverability IPP reopener into the Transpower IM determination.<sup>48</sup> This is intended to be a relatively streamlined reopener, where Transpower can apply from year 1 to year 4 of RCP4, for an adjustment that will increase expenditure and the revenue Transpower can recover, for the remaining regulatory years. We have set out the deliverability model mechanism in our IPP determination, including the expenditure Transpower can apply for.<sup>49</sup>
- 3.52 Transpower provided us with scenario information for different levels of base capex it could deliver, and opex it would incur for different FTE attainment levels against its FTE targets. We have used Transpower's FTE scenario information in our modelling.
- 3.53 We have based our initial deliverability adjustment, which will apply in year 1 of RCP4, using Transpower's most up to date FTE attainment levels. Transpower will be able to update its most recent FTE attainment, against the target, as part of its draft decision submission.
- 3.54 We are also introducing an annual delivery reporting requirement for Transpower in RCP4, which is intended to improve the transparency of information for customers on progress of the delivery of Transpower's proposed work programme and provide a reputational driver for Transpower to deliver on its proposal.
- 3.55 We considered a number of options of varying complexity to mitigate against a RCP4 under-delivery risk. You can find further detail on the delivery risk, the options considered and how we landed on our draft decisions in Attachment E: Deliverability.<sup>50</sup>

<sup>47</sup> Note that some numbers in tables may not sum to the totals displayed due to rounding.

<sup>48</sup> [DRAFT] Transpower IM Amendment Determination 2024.

<sup>49</sup> Commerce Commission, [DRAFT] Transpower Individual Price-Quality Path Determination 2025, Schedule EA.

<sup>50</sup> Commerce Commission, Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Draft decision Attachment E Deliverability expenditure.

## Revenue effect of our draft decisions

3.56 Our draft decision is to set a smoothed price path with the following growth rates:

3.56.1 15.43% for years 1 and 2 of RCP4; and

3.56.2 5.00% for years 3-5 of RCP4.

3.57 Figure 3.2 illustrates our draft decision for the price path for RCP4 based on our draft decisions for the inputs used to calculate the forecast maximum allowable revenue (forecast MAR), from which we generate a forecast smoothed MAR (forecast SMAR) by applying the rules in the Transpower IM.

**Figure 3.2 Forecast SMAR and forecast MAR (RCP4)**



### *Main drivers of revenue increase*

3.58 Transpower's RCP4 total forecast revenue allowance is \$5,780 million, a proposed increase of 43% from RCP3.

3.59 Figure 3.3 illustrates the factors influencing total RCP4 revenue. The main drivers of change in the forecast MAR (accounting for about \$1,500 million of the total increase – in green) are:

3.59.1 increase in WACC shown as higher return on capital;

3.59.2 increase in inflation;

3.59.3 higher regulatory asset base value;

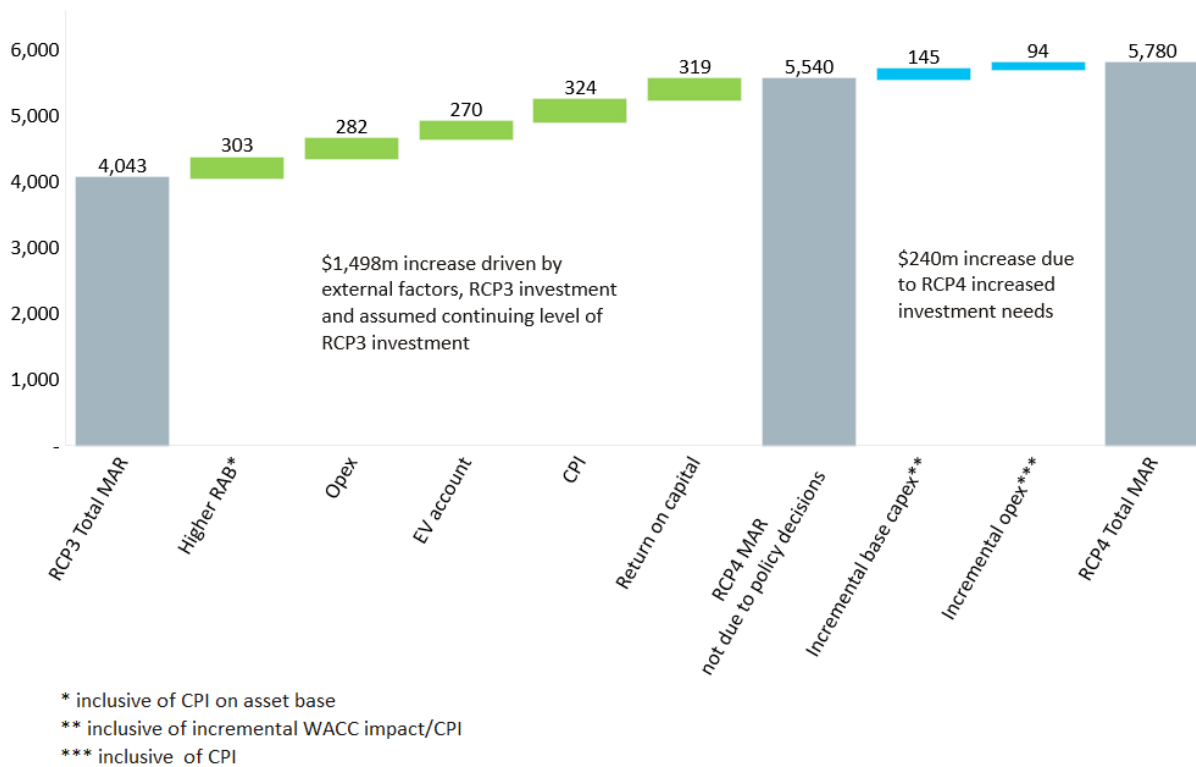
3.59.4 additional opex and incentive payments (IRIS); and



3.59.5 return of net under-recovered revenue from RCP3 in the economic value account.

3.60 Figure 3.3 also illustrates that the incremental investment that we assess and approve, accounts for about \$240 million of the total increase (in blue).

**Figure 3.3 Change in MAR from RCP3 to RCP4 (\$ million nominal)**



3.61 Increases in interest rates and inflation since we set the IPP for RCP3 are driving a large part of the increase in Transpower’s proposed revenue. The WACC determines the allowed rate of return for Transpower on the value of assets in its RAB and this can have a significant impact on the revenue Transpower is allowed to recover from its customers. The draft WACC estimate we are using to set our draft price-path, estimated as at 1 April 2024, is 7.37%. We will be setting a final cost of capital for Transpower in September by applying the formula in the Transpower IM.

*How we smoothed Transpower’s price path*

3.62 We have considered the consumer impact caused by the step change in revenue based on our approval of increased RCP3 expenditure as well as increases in inflation and the WACC since we set the RCP3 price path. We have considered this factor against maintaining Transpower’s incentives to invest in a safe and reliable network. Balancing these two factors has led us to our draft decision to have a two-year step change of 15.43% in years one and two of RCP4.

- 3.63 We are also aware that Transpower is forecasting several MCPs and Listed Projects over RCP4. By frontloading Transpower's revenue recovery we avoid a situation where increases in annual revenues are compounded by the commissioning of MCPs and listed projects later in the period.
- 3.64 While the annual increases are significant uplifts in nominal terms, our smoothing of the price path will reduce price shocks consumers might face at the start of RCP4 if no smoothing were applied.
- 3.65 Transpower's transmission charges flow through to consumer bills through electricity lines companies and electricity retailers. To illustrate the typical consumer bill effects of the increase in the revenues that we will approve for Transpower for RCP4, we have prepared a separate paper explaining the bill impacts, including how we have approached the expenditure factors within our control and those factors outside of our control.
- 3.66 You can find further detail on our draft decisions relating to Transpower's RCP4 revenue in our draft decision paper: Attachment A - revenue path design.

### **Quality standards and grid output measures**

- 3.67 For RCP4 Transpower's proposed package of measures is a refresh of the RCP3 grid output measures and quality standards. Overall, our draft decision is to keep the grid output measures largely unchanged.
- 3.68 Table 3.6 sets out our proposed package of grid output measures.

**Table 3.6 Proposed grid output measures for RCP4**

Measure name	Revenue at risk (\$ million)	Quality standard	RCP4 measure description
<b>GP1 – Grid Performance 1</b>	<b>7.6</b>	Yes	Number of unplanned interruptions across all points of service ( <b>POS</b> ) in a sub-category during a disclosure year
<b>GP2 – Grid Performance 2</b>	<b>7.6</b>	Yes	Average duration of unplanned interruptions greater than one minute, across all POS in a sub-category during a disclosure year
<b>AP1: Asset Performance 1 – HVDC capacity availability</b>	<b>1.0</b>	Yes	HVDC energy availability (%) of the inter-island HVDC system
<b>AP2: Asset Performance 2 – HVAC selected asset availability</b>	<b>2.0</b>	Yes	Average percentage of time HVAC assets are available during a disclosure year
<b>AH: Asset Health</b>	-	Yes	Proportion of assets in poor health for selected asset classes
<b>AP3: Asset Performance 3 – Return to service</b>	-	No	Extent that Transpower keeps to planned outage times in relation to selected HVAC assets
<b>AP4: Asset Performance 4 – Return to services communications</b>	-	No	Extent that Transpower communicates delays to planned outage return times in relation to selected HVAC assets
<b>GP4: Energy not served (previously labelled NR and GP3)</b>	-	No	Amount of energy demand that is not supplied due to a transmission interruption to supply.

Measure name	Revenue at risk (\$ million)	Quality standard	RCP4 measure description
<b>CS1: Customer Service 1 – Overall customer satisfaction</b>	-	No	Average level of overall customer satisfaction based on responses in an annual customer engagement survey.
<b>CS2: Customer Service 2 – New and enhanced grid connections</b>	-	No	Reports on delivery of new and enhanced grid connections.
<b>AP1.2: HVDC operational availability</b>	-	No	Measures HVDC availability includes all HVDC related assets to measure the actual HVDC operational capability.

- 3.69 Transpower reviews the grid output measures before each regulatory period and has developed its proposed updated measures in consultation with its stakeholders. Consequently, the package of measures proposed to us are based on those which customers value and, in particular, the proposed measures align with Transpower’s business focus.
- 3.70 The Verifier and stakeholders generally supported Transpower’s proposed changes. However, some modifications raised concerns. First, if the settings make the targets too easy to achieve through removal or limitation of the impact of events or projects, we lose the original purpose of the measures. Secondly, if the quality standards for some measures are removed, there would be no penalty for not maintaining a minimum level of quality. We largely share these concerns. Transpower’s proposed changes may result in measures no longer meeting the Capex IM criteria or promoting the appropriate incentives under the Part 4 purpose.
- 3.71 You can find further detail on our draft decisions relating to Transpower’s RCP4 quality standards and grid output measures in our draft decision paper - Attachment D: Quality standards and grid output measures.<sup>51</sup>

<sup>51</sup> Commerce Commission, *Transpower’s individual price-quality path for the regulatory control period commencing 1 April 2025: Draft Decision Attachment D - Quality standards and grid output measures* (29 May 2024).

## Chapter 4 IM amendments

### Purpose of this chapter

- 4.1 This chapter provides a connection to our draft reasons paper on IM amendments that give effect to three discrete issues under consideration in conjunction with the IPP reset.

### IM amendments

- 4.2 On 17 April 2024, we gave notice in accordance with section 52V of the Act, that we were beginning work on potential amendments of IMs that apply to Transpower. We amended that notice on 15 May 2024, to provide for changes to address the HVDC Cook Strait cable replacement issue, described at paragraph 4.4.4 below.
- 4.3 In the course of the IPP reset process, we identified potential amendments to the IMs that may be necessary to give effect to decisions under consideration during the RCP4 reset and promote the Part 4 purpose in section 52A of the Act more effectively. The IMs will not undergo a broader review, as this was done in the 2023 IM Review.
- 4.4 We are considering discrete IM amendments to give effect to three issues under consideration as part of the IPP reset:
- 4.4.1 implementing RAB indexation, following the 2023 IM Review;
  - 4.4.2 mechanisms to address expenditure deliverability risk;
  - 4.4.3 adjusting the Transpower IPP reopeners to allow for any consequential effects on quality standards; and
  - 4.4.4 amending the forecast EV adjustment formula to exclude any values associated with a deposit paid to secure a manufacturing slot for replacement HVDC Cook Strait cables.
- 4.5 You can find further detail on the draft IM amendments in our Transpower IM amendment draft decision paper.