

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

Decision and reasons paper

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Associated documents

Publication date	Reference	Title
29 August 2024	978-1-991287-76-2	Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Final Decision Attachment A – Revenue path design
29 August 2024	978-1-991287-77-9	Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Final Decision Attachment B - Capex
29 August 2024	978-1-991287-78-6	Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Final Decision Attachment C - Opex
29 August 2024	978-1-991287-79-3	Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Final Decision Attachment D - Quality standards and grid output measures
29 August 2024	978-1-991287-80-9	Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Final Decision Attachment E - Deliverability expenditure
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29 August 2024	978-1-991287-81-6	[REVISED DRAFT] Transpower Individual Price-Quality Path Determination 2025
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29 May 2024	N/A	Understanding how changes to line charges may impact your electricity bill webpage
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	Transpower's individual price-quality path for the next regulatory control period: Issues paper
9 October 2023	ISBN 978-1-991085-44-3	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

13 December 2023	ISBN 978-1-991085-65-8	Report on the IM Review 2023: Part 4 Input Methodologies Review 2023 - Final decision
13 December 2023	ISBN 978-1-991085-68-9	Part 4 IM Review 2023 - Final decision - Transpower investment topic paper

Commerce Commission
Wellington, New Zealand

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Executive Summary

- X1 We have set 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**). It is 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 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.¹
- X4 Transpower is required to provide a base capex proposal for us to consider ahead of setting the IPP.² Base capex includes asset replacement and refurbishment, enhancement and development, resilience, business support, and information and communication technology (**ICT**) assets. However, the maximum revenue we set for Transpower for each year of RCP4 does not take into account major capex proposals (**MCPs**) which are enhancement and development projects above \$30 million or a list of base capex projects (**listed projects**) which are replacement and refurbishment capex projects over \$30 million. We will not consider these for approval until sometime in RCP4 or later.

¹ Commerce Act 1986, section 53M(2).

² [Transpower Capital Expenditure Input Methodology \(IM Review 2023\) Amendment Determination 2023 \[2023\] NZCC 39, \(13 December 2023\) \(Transpower Capex IM\)](#), 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.³ The processes for grid investment approval through MCPs and listed project approvals are set out in the Transpower Capital Expenditure Input Methodology Determination (**Capex IM**) and sit outside of the IPP setting process we are undertaking here.⁴
- X6 This paper provides our final decisions and supporting reasons for:
- X6.1 the key inputs for the RCP4 IPP (length of the regulatory period, base capex allowance, operational expenditure (**opex**) allowance, quality standards and grid output measures), as required by the Commerce Act 1986 (**the Act**), the Capex IM and the Transpower Input Methodologies determination (**Transpower IM**);⁵
- 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 final decisions for RCP4 is set out in Table X1 and more detail is described in Chapter 3 of this paper and the relevant attachments.
- X8 We have published a revised draft of the RCP4 IPP determination with this paper. We will finalise the determination in November 2024 with an explanatory companion paper. The final determination will take into account our determination of the RCP4 weighted average cost of capital (**WACC**) rate, which we expect to affect the SMAR values noted in this paper.
- X9 Before we finalise the RCP4 IPP determination in November 2024, we will undertake a separate technical consultation on the deliverability reopener mechanism in Schedule EA of the determination. This is to seek further stakeholder views on how the mechanism achieves our policy intent. We will provide a separate notification to stakeholders on this consultation, following the publication of this paper.
- X10 All expenditure figures in this paper are in constant \$2022/2023 and all revenue figures are nominal unless otherwise stated.

³ 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).

⁴ Transpower Capex IM, clause 3.3.3.

⁵ 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**).

Our key decisions

Table X1 Summary of our final decisions for RCP4

Ref. no	Policy measure
Price path	
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 Economic Value (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 Maximum Allowable Revenues (MAR) and forecast Smoothed Maximum Allowable Revenues (SMAR) during RCP4 (change from Regulatory Control Period 3 (RCP3) approach that required director certification)
P5	apply a Consumer Price Index (CPI) wash-up mechanism for revenue
P6	introduce the RCP4 high voltage direct current (HVDC) transitional EV account adjustment to address a one-off specific issue
P7	include in the IPP the listed projects eligible for approval in RCP4
Capital expenditure (Capex) final decisions (constant \$2022/2023)	
C1	approve \$5.0 million of corridor management expenditure of the \$111.7 million in the Enhancement and Development (E&D) expenditure portfolio as base capex. This expenditure is capitalised opex and reclassified as base capex. The proposed E&D base capex portfolio is \$111.7 million.
C2	approve \$67.2 million of the proposed \$75.0 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 \$123.8 million 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.
Operating expenditure (Opex) final decisions (constant \$2022/2023)	
O1	use 2022/2023 as the base year for the purposes of the Base-Step-Trend
O2	approve \$181.1 million of the proposed \$181.1 million insurance opex
O3	approve \$320.1 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 \$290.0 million ICT opex
O7	approve \$683.5 million of the proposed \$683.5 million grid maintenance opex

Ref. no	Policy measure
Quality standards and grid output performance final decisions	
QS1	retain measure AH : Asset Health – proportion of each asset class in poor to very poor health
QS2	retain measure AP1 : Asset Performance 1 – HVDC capacity availability
QS3	add measure AP1.2 : 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 AP2 : Asset Performance 2 – HVAC selected asset availability
QS5	retain measure AP3 : Asset Performance 3 – return assets to service within the specified outage time
QS6	retain measure AP4 : Asset Performance 4 – number of outages communication. A reporting only measure.
QS7	remove measure AP5 : Asset Performance 5 – N-security reporting. A reporting only measure.
QS8	add measure CS1 : Customer service – overall customer satisfaction. A new reporting only measure relating to the score given by customers through an annual engagement survey.
QS9	add measure CS2 : Customer service– new and enhanced grid connections. A new reporting only measure relating to inquiries, investigations and delivery.
QS10	retain measure GP1 : Grid Performance 1 – number of unplanned interruptions across six sub-categories
QS11	retain measure GP2 : Grid Performance 2 – Average duration of unplanned interruptions across six categories
QS12	add measure GP4 : Grid Performance – Energy not served. A new reporting only measure including all interruptions, except those caused by customers, that are outside of Transpower’s control
QS13	remove GPM : Grid Performance – number of momentary interruptions. A reporting only measure.
QS14	retain Normalisation – an adjustment to targets following Commission’s assessment of specific events that have resulted in interruption to service.
QS15	set the total revenue at risk for RCP4 for all measures at \$90,647,101.
QS16	set the allocated revenue at risk for AP1, AP2, GP1, and GP2.
QS16	set the allocated revenue at risk per year for each subcategory of GP1 and GP2.
QS17	retain quality standards for AH, AP1, AP2, GP1 and GP2.
Deliverability (constant \$2022/2023)	
D1	apply a downwards adjustment of \$110.1 million in capex and \$61.7 million in opex for RCP4
D2	introduce a new deliverability reopener in the Transpower IM
D3	introduce an annual delivery reporting requirement

Our approach to setting the RCP4 IPP

- X11 On 21 November 2023 Transpower published its RCP4 proposal, which describes how it plans to operate, maintain and invest in the electricity transmission network.⁶ 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.⁷
- X12 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.⁸ We consider this concept is consistent with the purpose of Part 4, which is also a required consideration under the capex evaluation criteria in the Capex IM.⁹
- X13 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**).¹⁰
- X14 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.

⁶ 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>.

⁷ 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**).

⁸ 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.

⁹ Commerce Commission, [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).

¹⁰ ‘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.

- X15 At the same time, we recognise that any increase to Transpower’s maximum allowable revenue will impact consumers through their electricity bills. We are mindful that price increases will be unwelcome as consumers face higher costs across their budgets. We have considered mitigations for significant price increases, specifically by applying revenue smoothing.

Transpower’s expenditure uplift in RCP4 and other contextual drivers

- X16 Transpower proposed a significant uplift in its work programme and expenditure for the next five years, compared to previous IPP resets.
- X17 Much of the proposed RCP4 work programme involves the 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, an increasing number of these assets are reaching the end of their useful lives and will require replacement in RCP4 to maintain current service levels.
- X18 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.
- X19 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.

We have approved the majority of Transpower’s proposed expenditure

- X20 Transpower sought approval for \$4,411.2 million of expenditure over RCP4, which included:
- X20.1 capex of \$2,449.8 million in constant \$2022/2023;¹¹ and
- X20.2 opex of \$1,961.4 million in constant \$2022/2023 (including \$3.8 million for a proposed resilience uncertainty mechanism).

¹¹ 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.

- X21 We reviewed Transpower's proposal and we consider \$4,200.3 million of proposed total expenditure to be prudent and efficient, which includes:
- X21.1 capex of \$2,251.5 million in constant \$2022/2023 (91.9% of proposed capex); and
 - X21.2 opex of \$1,948.8 million in constant \$2022/2023 (99.4% of proposed opex).
- X22 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 decision to apply a downwards adjustment for deliverability to the capex and opex we consider is prudent and efficient and to introduce a new deliverability reopener.
- X23 The deliverability model for expenditure has been based on Transpower's estimate of what it considers it can deliver based on recruitment levels. The deliverability expenditure adjustments in this decision have been based on Transpower's most recent recruitment progress in attaining its target. Our final decision deliverability expenditure adjustment, in constant \$2022/2023 is \$171.8 million and is broken down to:
- X23.1 a reduction in capex of \$110.1 million; and
 - X23.2 a reduction of opex of \$61.7 million.
- X24 Applying the deliverability expenditure adjustments has resulted in us approving amounts that are below the expenditure that we consider is prudent and efficient in our final decision.
- X25 Table X2 sets out a summary of our capex and opex final decision for each year of RCP4, following the final decision deliverability expenditure adjustments.¹²

¹² Note that in the first year of RCP4 we have made capex and opex deliverability adjustments of \$1.4 million and \$2.3 million respectively. The 2025/2026 year deliverability adjustments are not subject to the deliverability reopener.

Table X2 Final decisions on expenditure allowances following deliverability expenditure adjustments – excluding capitalised leases (\$ million constant 2022/2023)

Expenditure category	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	RCP4 total ¹³
Capex	449.6	456.3	394.2	388.3	394.2	2,082.7
Opex	382.2	373.2	384.4	380.5	366.7	1,887.1
Total	831.9	829.4	778.6	768.9	761.0	3,969.7

X26 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 X4.

Capital expenditure

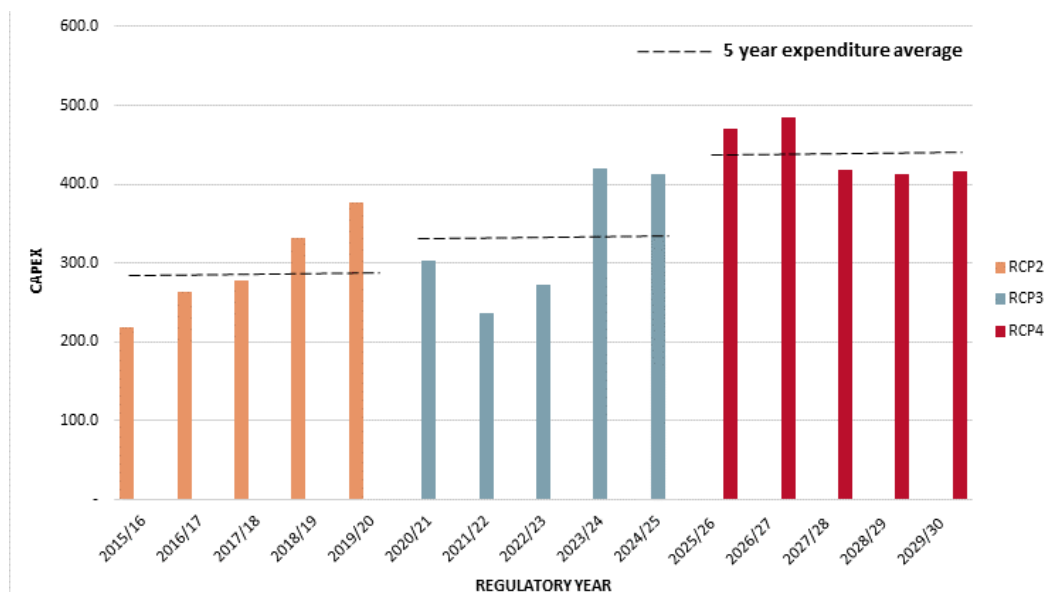
X27 We consider \$2,251.5 million (91.9%) of capex has been justified as prudent and efficient, consistent with GEIP, and meets the requirements of the Capex IM.

X28 Transpower's proposal has been comprehensively reviewed and verified, and we consider 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.

X29 The RCP4 base capex proposed by Transpower is compared with the two previous regulatory control periods (RCP2 and RCP3) base capex in constant dollar terms referenced to the 2022/2023 financial year in Figure X1 below.

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

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



- X30 We have also 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 these resilience expenditures to be approved now.
- X31 While we have reached a view that the majority of Transpower’s capex proposal is prudent and efficient, our final decision is to make \$108.7 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”. This has resulted in us approving \$2,141.3 million in capex (including capitalised leases) which is below the \$2,251.5 million that we consider is prudent and efficient.

Operating expenditure

- X32 We consider \$1,948.8 million in constant \$2022/2023 (99.4%) of opex has been justified as prudent and efficient, and consistent with GEIP.
- X33 To support the increase in base capex since RCP3, 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).¹⁴

¹⁴ Note the 20.1% expenditure uplift includes resilience uncertainty mechanism opex of \$3.8 million that Transpower proposed on a Use-It-Or-Lose-It (UIOLI) basis.

- X34 Following our review of the proposal, and having considered Transpower's opex proposal and the Verifier's review, we are satisfied that the expenditure is prudent and efficient.
- X35 Transpower's opex expenditure has been comprehensively reviewed and verified, and 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.
- X36 While we have reached a view that the majority of Transpower's opex proposal is prudent and efficient, the downwards adjustment for deliverability has resulted in us approving \$1,887.1 million of opex, which is below the \$1,948.8 million that we consider is prudent and efficient. We discuss this below.

Deliverability

- X37 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.
- X38 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.
- X39 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.
- X40 Given these concerns, and following analysis based on Transpower's 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
Capex	-1.4	-26.4	-28.3	-28.0	-26.0	-110.1
Opex	-2.3	-13.8	-14.7	-16.4	-14.6	-61.7
Total	-3.7	-40.1	-42.9	-44.4	-40.6	-171.8

- X41 In combination with the deliverability expenditure adjustment, our final decision is to introduce a deliverability price path reopener to allow for 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.
- X42 Transpower may apply for up to \$108.7 million of capex and \$59.4 million of opex (in constant \$2022/2023) contingent on demonstrating that it has recruited sufficient employees to plan and deliver the RCP4 work programme.¹⁵ The expenditure Transpower may apply for in each eligible year of RCP4 is given in Table X4.

**Table X4 Expenditure contingent on Transpower's recruitment
(\$ million constant 2022/2023)**

Expenditure category	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	RCP4 total ¹⁶
Capex	-	26.4	28.3	28.0	26.0	108.7
Opex	-	13.8	14.7	16.4	14.6	59.4
Total	-	40.1	42.9	44.4	40.6	168.0

- X43 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.
- X44 Our final decision includes the new annual delivery reporting requirement for Transpower in RCP4, which we proposed in our draft decisions. This is intended to provide programme delivery transparency for customers and will be a reputational driver for Transpower to deliver on its proposal.
- X45 Before we finalise the RCP4 IPP determination in November 2024,¹⁷ we will undertake a separate technical consultation on the deliverability expenditure adjustment in Schedule EA of the determination. This is to seek further stakeholder views on how the deliverability reopener mechanism achieves our policy intent. We will provide a separate notification to stakeholders on this consultation, following the publication of this paper.

¹⁵ For the purposes of the price path reopener in the IPP determination, these constant \$2022/2023 amounts are expressed in nominal dollars in the determination.

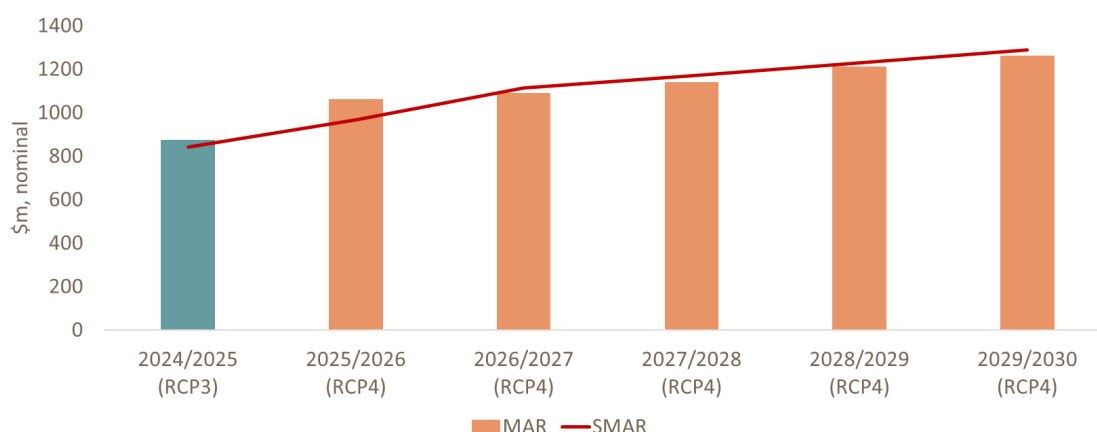
¹⁶ Note that some numbers in this table may not sum to the totals displayed due to rounding.

¹⁷ The Capex IM requires us to make certain final decisions e.g. on expenditure allowances, quality standards, and compliance obligations by the end of August 2024. However, other aspects of our decision may be made before 28 November 2024 in accordance with section 53M(7) of the Act.

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

- X46 Our final 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 four years), taken as a package, would not better meet the Part 4 purpose than the default regulatory period of five years.¹⁸
- X47 Our final decision on the smoothing profile of revenue for RCP4 is to set a smoothed price path with two equal growth rates for years one and two of RCP4 and 5.0% for each year of years three to five of RCP4. This provides the following growth rates (calculated on a nominal basis, i.e., includes forecast inflation):
- X47.1 for each of years one and two of RCP4, estimated to be 15.11%; and
- X47.2 for each of years three to five of RCP4, 5.00%.
- X48 We have used estimated growth rates for years one and two of RCP4. This is because our decisions will be updated in November to reflect the latest regulatory WACC estimate, which will be determined by the Commission in September 2024.
- X49 Figure X2 illustrates our decision for the RCP4 price path based on our final decision for the inputs used to calculate the forecast MAR, which we have turned into a forecast SMAR by applying the rules in the Transpower IM.¹⁹

Figure X2 Forecast SMAR and MAR (RCP4)



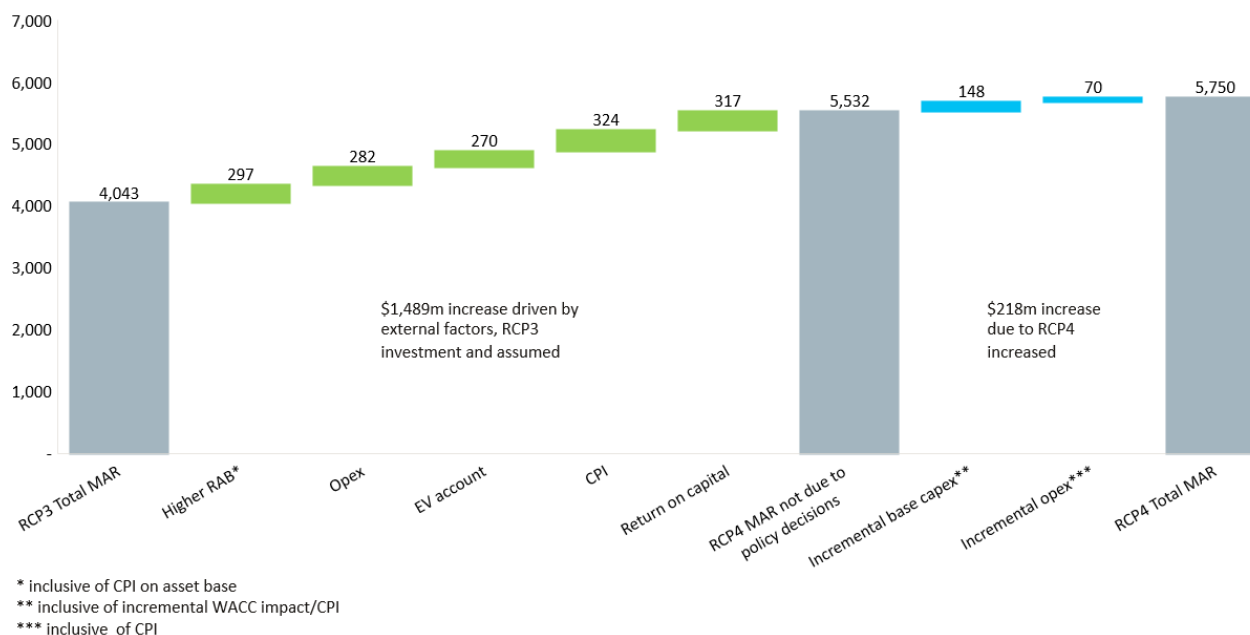
¹⁸ Commerce Act 1986, s 53M(4)-(5).

¹⁹ The MAR 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.

- X50 The approved total estimated smoothed forecast revenue allowance (ie, forecast SMAR) we have approved for Transpower in RCP4 is \$5,766 million (\$ million nominal), an increase of 42% from RCP3. We note that the forecast revenue allowance may change pending the setting of the regulatory WACC estimate in September.
- X51 Figure X3 illustrates the factors that influence the total building blocks-based RCP4 revenue on which the smoothed price path is based (ie, the forecast MAR). As Figure X3 shows, the main drivers of change in the estimated forecast MAR compared to RCP3 (accounting for about \$1,489 million of the total increase – in green) are:
- X51.1 estimated increase in weighted average cost of capital (**WACC**), shown as higher return on capital;
 - X51.2 increase in inflation;
 - X51.3 higher regulatory asset base value;
 - X51.4 additional opex and incentive payments (IRIS);²⁰ and
 - X51.5 Transpower's recovery of net under-recovered revenue from RCP3 in the economic value account.
- X52 Figure X3 also illustrates the incremental investment that our final decision approves, accounting for approximately \$218 million of the total increase in the forecast MAR building blocks revenue before smoothing over RCP4 (in blue in the figure).

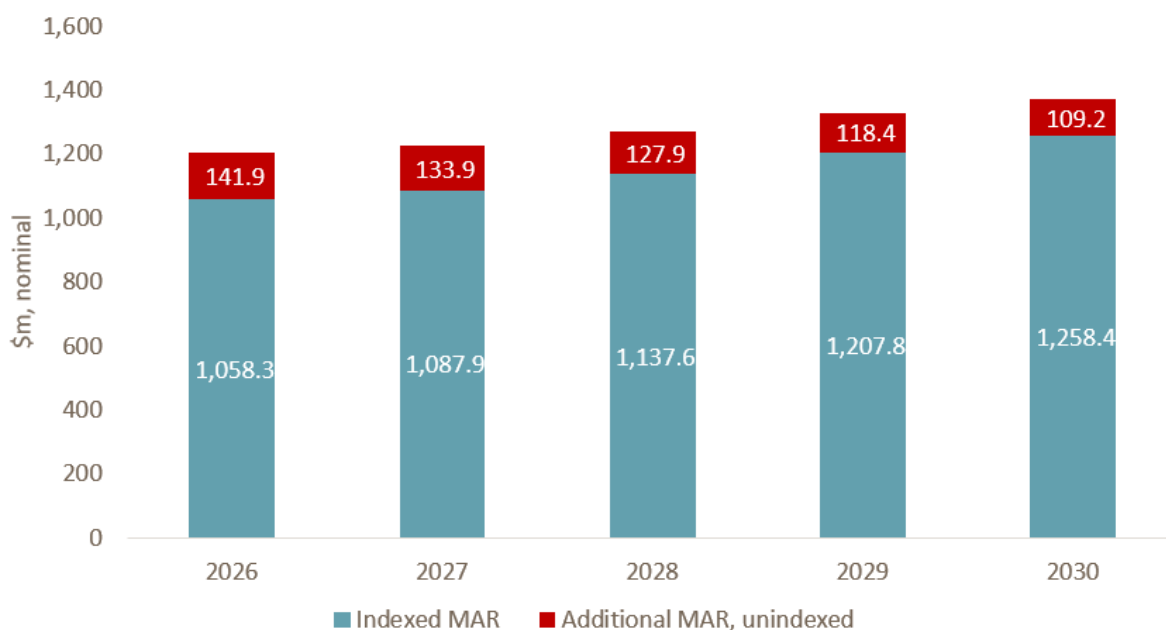
²⁰ IRIS payments or penalties represent incentive payments or penalties for underspend or overspend on expenditure.

Figure X3 Drivers of Transpower's RCP4 forecast MAR building blocks revenue increase (\$ million nominal)



X53 While the annual increases are significant uplifts in nominal terms, our smoothing of the price path will reduce price impacts 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.

X54 In addition, the implementation of our 2023 Input Methodologies Review (IM) 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, showing the additional MAR that would have applied without RAB indexation.

Figure X4 MAR impact of RAB indexation (\$ million nominal)

We are keeping Transpower's grid output measures largely unchanged

- X55 For RCP4, Transpower's proposed package of measures is a refresh of the RCP3 grid output measures and quality standards. Overall, our final decision is to keep the grid output measures largely unchanged.
- X56 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. We seek to ensure Transpower delivers services at a quality demanded by consumers and it has an incentive to deliver its work programme efficiently.
- X57 Our final decision is to approve a total revenue at risk of \$90.6 million for the RCP4 revenue-linked grid output measures,²¹ which was based on approximately 1.4% of the forecast revenues that Transpower had proposed for RCP4.

²¹ This amount of revenue at risk works out as approximately 1.4% of the revenue proposed by Transpower for RCP4. Because it is a fixed amount at risk, the percentage of total revenue will vary slightly when the WACC is set in September 2024 and the total forecast revenue is finalised in November 2024.

We have also made amendments to our Input Methodologies to implement our RCP4 final decisions

- X58 In the course of the IPP reset process, we identified several potential amendments to the Transpower IM that we considered 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.
- X59 We have made discrete amendments to the input methodologies (**IM**) to give effect to four issues identified 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.

Chapter 1 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.
- 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 we 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 explain our final decision for the Transpower IPP reset for RCP4 and our reasons for that decision.
- 1.5 A summary of the IPP process to date is set out in Table 1.1 and a description of each chapter of this paper is set out in Table 1.2 below.

Table 1.1 Summary of the IPP process to date

Date	Process step
May 2023	Published the terms of reference and tripartite deed for verification.
October 2023	Published our process, framework and approach paper and received submissions and cross submissions.
November 2023	Transpower published its RCP4 proposal and verification report.
February 2024	Published our issues paper on Transpower's RCP4 proposal and received submissions and cross submissions.
March 2024	Sent RFIs to Transpower to inform our draft decisions.
May 2024	Published our draft decisions and received submissions and cross submissions from stakeholders.
August 2024	We are now publishing our final decisions.

Table 1.2 Structure of this paper

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

Material accompanying this paper

1.6 Table 1.3 explains all of the documents in our package of final decision documents as well as related documents concerning consumer bill impacts.

Table 1.3 Package of RCP4 final decision documents

Document	Title	Description
Decision and reasons paper (this paper)	Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Final Decisions and reasons paper (29 August 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: Final Decision Attachment A – Revenue path design	Provides the detailed context, analysis and final decisions for the revenue path.
Attachment B – Capex	Transpower's individual price-quality path for the regulatory control period from 1 April 2025: Final Decision Attachment B – Capex.	Provides the detailed context, analysis and final decisions for capital expenditure.
Attachment C – Opex	Transpower's individual price-quality path for the regulatory control period from 1 April 2025: Final Decision Attachment C – Opex	Provides the detailed context, analysis and final decisions for operating expenditure.
Attachment D – Quality standards and grid output measures	Transpower's individual price-quality path for the regulatory control period from 1 April 2025: Final Decision Attachment D – Quality standards and grid output measures.	Provides the detailed context, analysis and final decisions for quality standards and grid output measures.
Attachment E – Deliverability expenditure	Transpower's individual price-quality path for the regulatory control period from 1 April 2025: Final Decision Attachment E – Deliverability expenditure.	Provides the detailed context, analysis and final decisions to address deliverability concerns.
IM Amendment final decision	Amendments to input methodologies for Transpower New Zealand Limited related to the Transpower individual price-quality path from 1 April 2025.	Sets out the incremental amendments to the 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.
Revised draft IPP Determination 2025	[Revised DRAFT] Transpower Individual Price-Quality Path Determination 2025.	The revised draft legal determination which will enact the IPP when it is finalised in November 2024.
IM Amendment Determination 2024	Transpower Input Methodologies Amendment Determination 2024.	The legal determination which makes incremental amendments to the IMs to implement the changes necessary for RCP4.

Document	Title	Description
Bill impact explainer	Understanding how changes to line charges may impact your electricity bill webpage.	Material aimed at consumers explaining our role and the reset process, and providing indicative bill impacts for consumers in different regions.
Deliverability model	RCP4 Deliverability model	Details our calculation of the deliverability expenditure adjustment and the contingent capex and opex Transpower can apply for through the deliverability reopener during RCP4.

Submissions

- 1.7 We consulted on our RCP4 Issues paper and on our draft decisions, and we received both submissions and cross submissions from a variety of stakeholders including networks and other electricity sector participants, energy users and consumer advocates.
- 1.8 We thank submitters for engaging with this process and providing views. We considered all of the feedback we received. This helped refine our understanding and informed our final decisions. Our responses to submissions for each topic area are covered in the individual attachments.

Our next steps

- 1.9 This paper presents our final decisions on the matters we are required by the Transpower Capital Expenditure Methodology to determine by 30 August 2024.²² The IPP determination will be made final in November 2024. This is to take account of the most up to date WACC estimate,²³ and any consequential decisions. The IPP we finally determine in November will apply to Transpower for RCP4, commencing on 1 April 2025.
- 1.10 The dates for the remaining steps in our IPP reset process are provided in Table 1.4 below.

²² Transpower Capital Expenditure Input Methodology Determination [2012] NZCC 2, clause 2.2.2(1).

²³ The Commission will determine the WACC estimate in September 2024.

Table 1.4 **Dates for remaining steps in our IPP reset process**

Indicative date	Process step
September 2024	Transpower RCP4 WACC published
	Technical consultation on the revised draft of the Deliverability expenditure adjustment in Schedule EA of the RCP4 IPP determination.
October 2024	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
	Transpower's values for the forecast MAR and for the forecast SMAR for RCP4 to be provided by Transpower to the Commission
November 2024	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;
 - 2.1.2 broader policy issues raised in submissions on our draft decisions; and
 - 2.1.3 the wider context for our decisions for RCP4, and how this context has changed since RCP2 and RCP3.

Broader policy issues raised in submissions to our draft decisions

- 2.2 Following publication of our draft decisions for RCP4 in May 2024, stakeholders raised several points in their submissions that touch on broader energy policy issues. We include a brief discussion below on the themes raised in these submissions.

Consumer bill impacts

- 2.3 A number of submitters were concerned about the bill increases resulting from our decisions for Transpower's revenue:
- 2.3.1 The Major Electricity Users' Group (**MEUG**) asked that we report the full impact of the transmission component on end consumers along with wholesale, distribution and retail components.²⁴
 - 2.3.2 Meridian Energy Limited (**Meridian**) recommended that we convey the full extent of the cost increases associated with our draft decisions:

In Meridian's view, it is critical that the greater public understands the full quanta of the expected cost increases (i.e. from April 2025 and the subsequent years – consumers should be aware that the necessary downside of smoothing is that network costs will continue to build for all five years in the regulatory control period) and the reasons for the increases.

Transpower, the EDBs, and the Commission should all aim to ensure that consumers gain this understanding before April 2025. Meridian supports the Commission's attempts to demonstrate and display these increases to consumers so far (e.g. via the Commission's press releases and website) but notes that communicating the changes should be an ongoing effort. Media coverage moves on quickly (and has done so already in this case). Consumer groups could also be asked to assist in communicating the changes.²⁵

²⁴ [Major Electricity Users Group, "submission on RCP4 draft decision" \(26 June 2024\) \(MEUG's submission on RCP4 draft decision\)](#), para 5.

²⁵ [Meridian Energy Limited, "submission on RCP4 draft decision" \(26 June 2024\) \(Meridian's submission on RCP4 draft decision\)](#), para 6-8.

- 2.4 We acknowledge the impact our RCP4 and DPP4 decisions will have on consumer bills. We have applied smoothing to the price path to reduce the size of price increases in individual years in RCP4. 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.
- 2.5 This means bills will continue to increase over the regulatory period. When we published our draft decision, we estimated that the transmission and distribution component of an electricity bill would increase by \$15 per month (\$180 annually) per household, exclusive of GST, on average. We estimate that monthly bills would then increase by an average of \$5 every year for the remaining four years of the regulatory period.
- 2.6 We acknowledge that consumers are facing increasing costs across their electricity bill - network, wholesale and retail. Our focus, under Part 4 of the Act in relation to Transpower, is on the network component.
- 2.7 Our decision and reasons paper and associated documents on consumer impact seek to explain why the revenue increases we have decided are necessary and in the long-term interests of consumers.
- 2.8 There is a responsibility across the sector to transparently communicate these revenue increases and the reasons for the increases to consumers. This includes Transpower and the EDBs that allocate the revenues we set to their customers, retailers who have a direct relationship with consumers, the Electricity Authority, and consumer and industry bodies.
- 2.9 We are engaging with industry bodies, Transpower and distributors, and retailers to ensure consumers get the right information explaining the reasons behind price increases. We will continue to do this throughout the regulatory period to ensure price changes are accurately and transparently communicated to consumers.
- 2.10 We have ongoing interactions with Government agencies regarding sector developments and our respective work programmes. We also brief Ministers at key points in our decision-making process.

Non-transmission solutions

- 2.11 MEUG discussed Transpower's consideration and uptake of non-traditional (or non-transmission) solutions (**NTS**):

MEUG supports the greater use of non-traditional solutions (NTS), across the transmission network, where it is cost effective. We believe further work is needed in this area to understand what Transpower has learned to date from trying to procure NTS, what range of NTS are presently available to Transpower, and what is the state / maturity of the NTS market. Ideally, we want to encourage NTS across both transmission

and distribution networks, and need to consider if there are any regulatory barriers to this market developing further.²⁶

- 2.12 Although transmission upgrades that are presented as prospective MCPs sit outside the consideration of this RCP proposal, we are cognisant of the requirement of Transpower under the Capex IM to consider NTS as part of its MCP process.
- 2.13 As part of Transpower's proposal for a MCP for a grid enhancement or development project, Transpower is required to consider possible NTSs. As part of the requirement for NTS, Transpower must include reasonable information about the investment needs and consultation with interested persons. Further information can be found in the Transpower Capex IM.²⁷
- 2.14 Transpower responded to MEUG's comments with some information about its experience attempting to procure NTS to date. While we do not think it's necessary to introduce new Information Disclosure (**ID**) requirements at this time for this purpose, we will be seeking to better understand Transpower's NTS procurement approach as we process a number of forthcoming major capex proposals (**MCP**).
- 2.15 Given advances in demand-side technologies, we will be looking to see Transpower is seeking and considering NTS options in its ongoing and future MCP processes. We need to ensure Transpower is identifying the most efficient solutions for the grid, in line with the investment test set out in the Capex IM.²⁸
- 2.16 Additionally, we will be focussing on whether Transpower is clearly setting out the NTS technical requirements, so that prospective providers are clear about the technical requirements and whether their solutions are likely to be appropriate.

Our role in regulating Transpower

- 2.17 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.
- 2.18 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.

²⁶ [MEUG's submission on RCP4 draft decision](#), para 16.

²⁷ Commerce Commission, [Transpower](#) Capex IM, Schedule I.

²⁸ Commerce Commission, Transpower Capex IM Determination 2012.

- 2.19 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.
- 2.20 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.²⁹ The IPP may also include incentives for Transpower to maintain or improve its quality of supply, and this may include revenue-linked measures.³⁰
- 2.21 Transpower is required to provide a base capex proposal for us to consider ahead of setting the IPP.³¹ Base capex includes asset replacement and refurbishment, business support, and ICT assets. It excludes MCPs. The process for grid investment through MCPs is set out in the Capex IM and sits outside the IPP price-setting process.³²
- 2.22 On 21 November 2023, Transpower published its RCP4 proposal which describes how it will operate, maintain and invest in the electricity transmission network.³³ Alongside this proposal, Transpower also submitted a report from the Verifier setting out an independent verification opinion on Transpower's RCP4 proposal.³⁴
- 2.23 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**).³⁵

²⁹ Commerce Act 1986, sections 53ZC and 53M(1).

³⁰ Commerce Act 1986, section 53M(2).

³¹ Commerce Commission, Transpower Capex IM, clause 2.2.1 and 2.2.2.

³² Commerce Commission, Transpower Capex IM, clause 3.3.3.

³³ 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>.

³⁴ GHD Advisory and Castalia, [IV report](#).

³⁵ Commerce Commission, Process paper.

- 2.24 In reviewing Transpower’s proposal and reaching our 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 submissions made to us in our stakeholder consultation processes through our Process paper of 9 October 2023, our issues paper of 25 January 2024 (**Issues paper**),³⁶ and our draft decisions of 29 May 2024.³⁷
- 2.25 Timing is an important factor in Transpower’s proposal, to ensure the right investment is made at the right time so that its customers 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. Our review considers the impact that investment decisions now will have on future generations of consumers.
- 2.26 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.³⁸
- 2.27 RCP4 is the first full regulatory period for which Transpower’s regulated revenues will flow through to customer prices using the Transmission Pricing Methodology (**TPM**).³⁹ 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).

The RCP4 context and the contrast with the previous reset

- 2.28 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.
- 2.29 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.

⁴⁴ Commerce Commission, Process paper.

³⁷ Commerce Commission, “[Transpower’s individual price-quality path for the regulatory control period commencing 1 April 2025](#)”, (**Draft decision**).

³⁸ The Transpower price-quality path reopener processes were updated in the 2023 IM Review.

³⁹ A description of the TPM changes can be found at <https://www.transpower.co.nz/our-work/industry/gridpricing/transmission-pricing-methodology/about-tpm>

- 2.30 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.
- 2.31 In reaching our final 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

- 2.32 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 estimating a cost of capital of 7.37%, versus 4.57% which applied over RCP3.^{40,41}
- 2.33 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

- 2.34 RCP4 will commence at a time of significant challenges in the energy sector, driven by decarbonisation and the anticipated electrification of energy processes in place 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.
- 2.35 Transpower has also reported that it is experiencing increased asset costs as global transmission equipment manufacturers are seeing unprecedented demand due to renewables driven electrification.
- 2.36 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.

⁴⁰ 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.

⁴¹ Our WACC determination will take place in September.

Resourcing and deliverability

- 2.37 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.
- 2.38 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.⁴²
- 2.39 In the next chapter we discuss our assessment of Transpower’s ability to deliver its forecast work programme.

Climate impacts and resilience

- 2.40 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.
- 2.41 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 concerned about the resilience of the electricity sector, from 2022 to 2023.
- 2.42 In setting 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 against climate change effects, where these are based on robust forecasts.

Overview of our decision-making framework

- 2.43 Section 52A of the Act sets out the purpose of Part 4 of the Commerce Act 1986 (**Part 4 purpose**):⁴³

(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

⁴² Transpower New Zealand Limited, RCP4 Proposal, p 13.

⁴³ Commerce Act 1986, s 52A.

(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.

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

2.44.1 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;⁴⁴ and

2.44.2 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.⁴⁵

2.45 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.⁴⁶

2.46 There are two IM determinations that apply to Transpower:⁴⁷

2.46.1 The first 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;⁴⁸ and

2.46.2 The second includes the two major functions of the Capex IM to provide for the scrutiny of Transpower's proposed and actual investment, and to incentivise Transpower to deliver those investments efficiently.^{49,50}

⁴⁴ Commerce Act 1986, s 53ZC.

⁴⁵ Commerce Act 1986, s 53C.

⁴⁶ Commerce Act 1986, s 52R.

⁴⁷ 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.

⁴⁸ Transpower IM: Transpower IM Determination 2010 [2012] NZCC 17

⁴⁹ Capex IM: Transpower Capex IM Determination 2012 [2012] NZCC 2.

⁵⁰ Commerce Commission, "[Transpower capex input methodology review – decisions and reasons](#)" (29 March 2018), para X9.2.

- 2.47 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. We consider 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.⁵¹
- 2.48 In applying this concept, we consider that a 'prudent supplier' is a supplier whose planning and performance standards reflect GEIP. A useful definition of GEIP, in relation to electricity transmission services, is found in the Code.⁵²
- 2.49 Our decision-making framework is set out in more detail in our process, decision-making framework, and approach paper.⁵³

⁵¹ Transpower Capex IM, clause 6.1.1(2) and 6.1.1(3).

⁵² '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.

⁵³ Commerce Commission, [Process paper](#).

Chapter 3 Our key decisions for RCP4

Purpose of this chapter

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

Our final decisions are largely unchanged from our draft decisions

3.2 Following consultation, our final decisions are largely unchanged from our draft decisions.

3.3 The following is a brief overview of the key changes we have made since our draft decisions on expenditure:

3.3.1 the capex considered is prudent and efficient is now increased by \$5 million following our review of additional information on Transpower's corridor management programme; and

3.3.2 we have decided that Transpower's estimate for its RCP5 preparation costs of \$2.8 million (constant \$2022/2023) in the opex business support category is prudent and efficient. It is consistent with previously incurred costs and these costs have been appropriately modelled by Transpower.

3.4 In our draft decision we made a deliverability expenditure adjustment based on Transpower's most up to date FTE attainment levels. These adjustments were consistent with Transpower attaining 50% of its forecast FTEs against year-on-year targets.

3.5 Transpower provided us with an FTE update on 16 August 2024. This has resulted in us modifying the year one deliverability expenditure adjustments by decreasing the year one expenditure adjustment, resulting in higher base capex and opex allowances for year one of RCP4. We have retained our draft decision deliverability expenditure adjustments for years two to five of RCP4. Transpower will be able to access this expenditure via the deliverability reopener we have introduced.

3.6 Following our review of Transpower's 16 August 2024 information we identified that the deliverability reopener we published in the draft decision will need to be modified. We will be addressing this with a short technical consultation on a revised deliverability reopener mechanism in the IPP Determination following this final decision.

- 3.7 Following stakeholder submissions on our draft decision, we have included a section to better explain the deliverability expenditure adjustment, the deliverability reopener and the annual delivery report in our Final Decision Attachment E - Deliverability expenditure.⁵⁴ This clarifies how the measures we have introduced address different aspects of delivery risk. This includes the short-term risk of an incentive bonus for non-delivery over RCP4, the longer-term risk of over-forecasting the work programme, and the potential impact over RCP4 and beyond.
- 3.8 Key changes from our draft decisions on the revenue path design are to:
- 3.8.1 allow Transpower to assume a half-yearly capex commissioning assumption in a disclosure year for the purposes of calculating its forecast revenue for each relevant pricing year; and
 - 3.8.2 amend the formula for the CPI disparity adjustment in the capital charge to adequately protect against inflation forecast risk exposure in the regulatory period by making adjustments to target a real return (ie, equal to the real WACC).
- 3.9 Our final decisions on grid output measures are largely unchanged from the draft decision. Our key changes are to amend:
- 3.9.1 the Customer Service measure 2 (**CS2**) for reporting of costs and removing reporting requirements where data is not available. The changes aim to make it easier for customers to understand the number of cost overruns and cost underruns, and how frequently they occur; and
 - 3.9.2 the Asset performance measure 1.2 (**AP1.2**) to reflect how Transpower currently reports on the HVDC capacity limit within the Wholesale Information Trading System (**WITS**).

We approved the majority of Transpower's proposed expenditure

- 3.10 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.⁵⁵

⁵⁴ Commerce Commission, Transpower's individual price-quality path for the regulatory control period from 1 April 2025 Final Decision Attachment E - Deliverability Expenditure (29 August 2024).

⁵⁵ Unless otherwise specified, our final decisions for capex, opex and deliverability adjustments in this Chapter 3 are expressed in constant \$2022/2023.

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

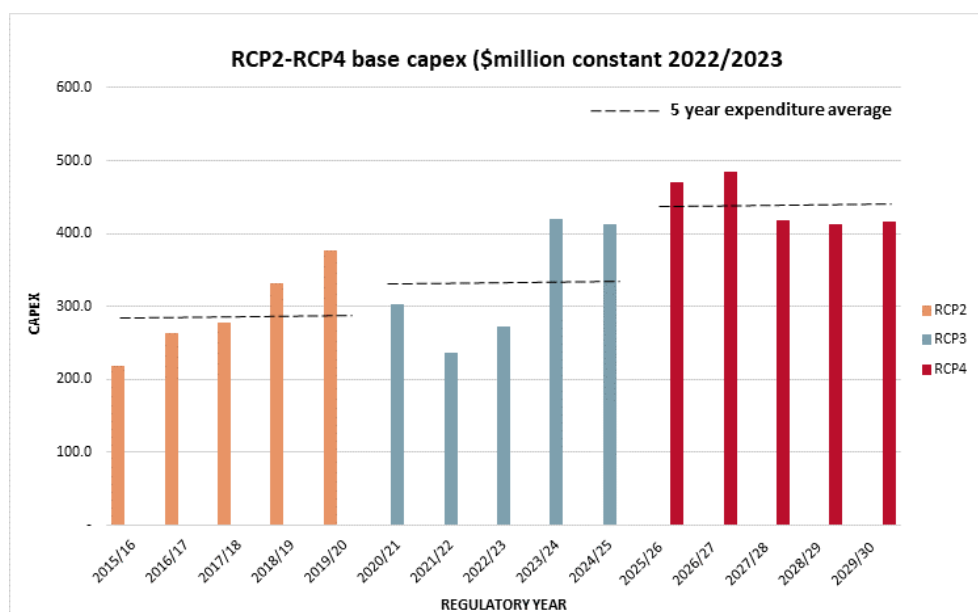
Expenditure category	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	RCP4 total ⁵⁶
Capex	461.4	494.2	439.5	426.7	429.6	2251.5
Opex	384.6	386.9	399.1	396.9	381.3	1948.8
Total	846.0	881.1	838.5	823.6	811.0	4200.3

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

Capex

3.12 Transpower 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 proposed for RCP4.

Figure 3.1 Transpower's proposed RCP4 base capex compared to previous regulatory periods



3.13 Transpower considered 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 change driven major events.

⁵⁶ Note that some numbers in tables may not sum to the totals displayed, due to rounding.

- 3.14 Transpower is also experiencing increased asset costs as global transmission equipment manufacturers are seeing unprecedented demand due to renewables driven electrification.
- 3.15 We have reviewed Transpower's full capex proposal that includes the base capex it proposed as UIOLI, for resilience and customer electrification. Following this review, we consider that \$2,251.5 million (constant \$2022/2023) of proposed capex is prudent and efficient, consistent with GEIP, and meets the Capex IM assessment criteria.
- 3.16 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 downwards adjustment for deliverability to the capex we consider is prudent and efficient.
- 3.17 Deliverability expenditure adjustments are based on Transpower's estimate of what it believes it can deliver based on recruitment attainment targets. The deliverability adjustments in this final decision have been based on Transpower's most recent recruitment progress in attaining its target.
- 3.18 Our final decision is a downwards deliverability capex adjustment of \$110.1 million (constant \$2022/2023).
- 3.19 Our deliverability model is based on Transpower information that apportions expenditure to full-time equivalent staff (**FTE**) levels attained.⁵⁷ Since the draft decision, the approved expenditure has slightly increased which has also modified the deliverability expenditure adjustment in each year of RCP4.
- 3.20 Applying the downwards deliverability expenditure adjustment has resulted in us approving \$2,141.3 million (constant \$2022/2023) of capex (including capitalised leases), which is below the \$2,251.5 million (constant \$2022/2023) that we consider is prudent and efficient.
- 3.21 Transpower will be able to seek additional base capex through the deliverability reopener, which is triggered when Transpower applies for and provides us with an update of its recruitment progress, noting that we will be carrying out a technical consultation on the deliverability reopener mechanism following the publication of this decision.⁵⁸

⁵⁷ Commerce Commission, RCP4 Deliverability model, 29 August 2024.

⁵⁸ Following Transpower's 16 August 2024 updated information we identified that the operation of the deliverability reopener we published in the draft decision may need to be modified. Following publication of this decision, we will publish further technical consultation materials and notify stakeholders.

Our review of the capex proposal

- 3.22 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 the proposed expenditure.
- 3.23 Transpower's proposal has been comprehensively reviewed and verified, and we consider 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. We have relied upon the Verifier's report in reaching our conclusions.
- 3.24 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.
- 3.25 Transpower has also significantly advanced its understanding of resilience risk, risk consequence, and economic measures to justify mitigations. On this basis, it has proposed resilience expenditure in a separate base capex programme, which we have largely approved.
- 3.26 Following our review of the proposal we consider that \$2,128.4 million of base capex is prudent and efficient, consistent with GEIP, and meets the requirements of the Capex IM. This includes \$67.2 million for resilience capex. These figures compare with Transpower's proposed base capex of \$2,167.4 million which included \$75.0 million for resilience capex.
- 3.27 In addition to resilience expenditure proposed as part of base capex, Transpower 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 of \$123.8 million that it could access on a UIOLI basis.
- 3.28 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.
- 3.29 We consider resilience UM expenditure should be progressed where there are high priority exposure mitigations.
- 3.30 For resilience UM expenditure that we have not approved, we encourage Transpower to further develop its business cases and economic justifications and utilise the mid-period reopener process.

- 3.31 Table 3.2 summarises Transpower’s proposed capex and the capex we have assessed as being prudent and efficient, for each of the key capex programmes. Table 3.3 summarises our conclusions following our resilience expenditure review.

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

Expenditure programme	RCP4 Proposal ⁵⁹	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	111.7
ICT capex	209.4	209.4
Business support capex	34.7	28.9
Capitalised leases	58.7	58.7
Total	2,151.4	2,119.9

- 3.32 We present the resilience expenditure review in Table 3.3 separately from the capex totals in Table 3.2 as Transpower’s resilience expenditure includes both capex and opex.

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

Expenditure programme	RCP4 Proposal ⁶⁰	Prudent and efficient
Resilience expenditure	75.0 (capex)	67.2 (capex)
	12.2 (opex)	3.8 (opex)
Resilience UM expenditure	123.8 (capex)	64.4 (capex)
	3.8 (opex)	3.8 (opex)
Total	198.8 (capex)	131.6 (capex)
	16.0 (opex)	7.6 (opex)

⁵⁹ 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.

⁶⁰ 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.

- 3.33 Further detail on our decisions relating to Transpower's RCP4 base capex can be found in our final decision paper: Attachment B - Capex.
- 3.34 In view of our decision to approve such a significant increase in the base capex allowance for RCP4, we also discuss below under "Work programme deliverability" the risk of Transpower not being able to deliver on its base capex programme.

Opex

- 3.35 Transpower proposed \$1,961.4 million of opex, including resilience uncertainty mechanism opex of \$3.8 million that Transpower proposed on a UIOLI basis.
- 3.36 We reviewed the proposed expenditure and consider \$1,948.8 million (99.4%) of opex is prudent and efficient and consistent with GEIP.
- 3.37 This total includes an additional \$2.8 million of business support opex for RCP5 preparation which we consider is prudent and efficient compared to our draft decision. This opex is consistent with previously incurred costs and these costs have been appropriately modelled by Transpower.
- 3.38 Table 3.4 summarises the proposed opex, and the expenditure that we 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 ⁶¹	7.6 ⁶²
Asset Management and Operations	461.8	461.8
Sustainability	2.4	2.4
Business Support	320.1	320.1
ICT Opex	232.6	234.9
ICT Software as a Service	57.4	57.4
Insurance	181.1	181.1
Total	1,957.6	1,948.8

- 3.39 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 would be a 20.1% expenditure uplift for RCP4 compared to what Transpower estimated it will spend as opex by the end of RCP3 (\$1,632.6 million).
- 3.40 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.

⁶¹ Note the \$12.2 million is exclusive of the additional \$3.8 million of resilience UM opex (which is assessed in Attachment B – Capex of this final decision package).

⁶² 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.

- 3.41 In assessing the opex steps and trends, we relied on the Verifier's report to inform our analysis of whether the steps and trends were prudent and efficient. We also carried out additional reviews of the more material components of Transpower's proposal, and where the proposed expenditure was materially different to what was reviewed and verified by the Verifier.
- 3.42 In particular, we have focused our assessment on:
- 3.42.1 Transpower's proposed base year for the purposes of its base-step-trend forecasting methodology;
 - 3.42.2 whether Transpower's proposed replacement and refurbishment capex reduces Transpower's grid maintenance opex; and
 - 3.42.3 whether Transpower's proposed resilience expenditure reduces Transpower's insurance opex.

Transpower's base year

- 3.43 Our decision is to use 2022/2023 as the base year for Transpower's base-step-trend method used to develop its opex forecasts. 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 (doing which would result in lower returns to shareholders).

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

- 3.44 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. The amount of grid maintenance opex is not necessarily reduced by the proposed replacement and refurbishment capex.
- 3.45 We spot checked that Transpower's asset management plan reflects this increasing asset age. Transpower's asset health models inform grid maintenance. This is likely to be informed by risk and to consider an opex/capex trade-off. Based on our assessment, we are satisfied that Transpower has established the need for its grid maintenance even with the increase in asset replacement and refurbishment.

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

- 3.46 We consider Transpower has justified its proposed insurance expenditure and sufficiently explained the relationship between its resilience expenditure and insurance. It explained that resilience was used to minimise the outage impact resulting from an event, while insurance is applied to replacing or repairing assets damaged by an event. We consider the two expenditure categories are used for different purposes and both are prudent.

Our view on other areas of opex

- 3.47 We have made reductions to the opex allowance for Transpower's preventive maintenance programme to address a pricing error which had resulted in higher forecasted expenditure in its proposal.⁶³
- 3.48 We have increased Transpower's Information Services and Technology (IST) opex for information and communications technology costs related to its TransGO project,⁶⁴ due to increased project forecast certainty resulting in a higher forecast amount. We assess that this change was prudent and efficient, based on additional information and explanations provided from Transpower.⁶⁵
- 3.49 The 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.
- 3.50 Transpower's proposal has been comprehensively reviewed and verified, and it 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.
- 3.51 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.

⁶³ This is explained in Attachment C – Opex, para 4.212.

⁶⁴ TransGO is the national telecommunications network that underpins all the communications network services used by Transpower. This project refreshes the communications infrastructure.

⁶⁵ We discuss our reasoning in Attachment C – Opex.

Delivery risk expenditure adjustment

- 3.52 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 expenditure adjustment (reduction) to the opex we consider is prudent and efficient. We discuss how we addressed deliverability issues in our final decision Attachment E - Deliverability.
- 3.53 Our deliverability expenditure adjustments have been based on Transpower’s estimate of what it believes it can deliver based on recruitment levels. The deliverability expenditure adjustments in this final decision are based on Transpower’s most recent recruitment progress in attaining its target. Our final decision delivery risk opex adjustment is \$61.7 million.
- 3.54 Applying the deliverability expenditure adjustment has resulted in final decision amounts that are below the expenditure that we consider is prudent and efficient.
- 3.55 Applying the deliverability expenditure adjustment has resulted in an opex allowance of \$1,887.1 million, which is below the \$1,948.8 million that we consider is prudent and efficient.
- 3.56 Transpower will be able to seek additional opex through the deliverability reopener, which is triggered when Transpower applies for and provides us with an update of its recruitment progress, noting that we will be carrying out a technical consultation on the deliverability reopener mechanism following the publication of this decision.⁶⁶
- 3.57 More detailed information on our assessment of Transpower’s opex proposal in our final decision Attachment C - Opex.

Work programme deliverability

- 3.58 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.
- 3.59 While Transpower has provided us with an update on its staff recruitment progress, we have remaining concerns it may not achieve the uplift in FTE numbers required to deliver the full work plan over the five-year RCP4 period.

⁶⁶ Following Transpower’s 16 August 2024 updated information we identified that the operation of the deliverability reopener we published in the draft decision may need to be modified. Following publication of this decision, we will publish further technical consultation materials and notify stakeholders.

- 3.60 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.
- 3.61 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.
- 3.62 The 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.
- 3.63 Given these concerns, and following analysis based on Transpower’s estimates of what it may deliver over RCP4 and how its recruitment has progressed, we have made deliverability expenditure adjustments to Transpower’s expenditure allowances.
- 3.64 Coupled with this adjustment, we are introducing a new IPP deliverability reopener into the Transpower IM determination.⁶⁷ This is intended to be a relatively streamlined reopener, where Transpower can apply from year one to year four 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.⁶⁸

**Table 3.5 Expenditure contingent on Transpower’s recruitment
(\$ million constant 2022/2023)**

Expenditure category	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	RCP4 total ⁶⁹
Capex	-	26.4	28.3	28.0	26.0	108.7
Opex	-	13.8	14.7	16.4	14.6	59.4
Total	-	40.1	42.9	44.4	40.6	168.0

⁶⁷ Commerce Commission, Transpower IM Amendment Determination 2024.

⁶⁸ Commerce Commission, Transpower Individual Price-Quality Path Determination 2025, Schedule EA.

⁶⁹ Note that some numbers in tables may not sum to the totals displayed due to rounding.

- 3.65 The deliverability reopener has been calculated using information provided by Transpower on the expenditure contingent on Transpower's recruitment and is based on its estimate of base capex it can deliver, and opex it incurs for different FTE attainment levels on a year-on-year basis.⁷⁰
- 3.66 As part of our review of the RCP4 proposal 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 used Transpower's FTE scenario information as the basis for the deliverability adjustments in our modelling.⁷¹

Transpower 16 August 2024 additional information

- 3.67 In our draft decision we based our proposed deliverability adjustments on Transpower's most up to date FTE attainment levels (as of January 2024).
- 3.68 On 16 August 2024, Transpower provided us with an update on its most recent FTE attainment levels as of 30 June 2024 (the end of the 2023/2024 Transpower disclosure year).
- 3.69 This updated information indicates that Transpower is closer to a 90% FTE attainment level (931 FTEs) against the year-on-year target of 936 FTEs. This is compared with our draft decision which modelled Transpower on a trajectory to attain 50% of its target year-on-year FTEs.
- 3.70 In our final decision we have incorporated Transpower's 30 June 2024 FTE update into our deliverability modelling and as a result, have amended the RCP4 year one deliverability adjustment. We have retained the deliverability adjustments we set in the draft decision for years two to five of RCP4, in anticipation of Transpower making its first reopener application following 30 June 2024, and before 31 August 2025.
- 3.71 In our draft decision we set the 2025/2026 capex deliverability adjustment to \$6.5 million and the opex deliverability adjustment to \$13.0 million. Following the Transpower 30 June 2024 FTE update information these adjustments are now \$1.4 million and \$2.3 million for capex and opex respectively.
- 3.72 Following Transpower's 16 August 2024 updated information we identified that the deliverability reopener we published in the draft decision will need to be modified. This is because the FTE attainment levels for a disclosure year ending 30 June will be more than a year behind the revenue need.

⁷⁰ Commerce Commission, RCP4 Deliverability model, 29 August 2024.

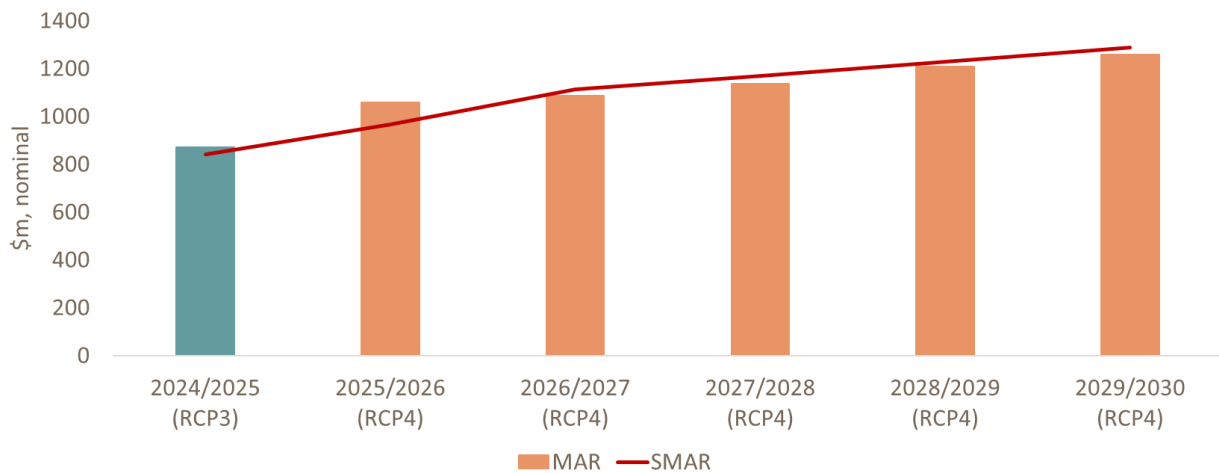
⁷¹ Transpower provided us with capex and opex information for 50%, 75%, 90% and 100% FTE uplift scenarios against year-on-year targets.

- 3.73 As a consequence, and following this final decision, we will be carrying out a short technical consultation on a revised deliverability reopener modelling mechanism in the IPP Determination.
- 3.74 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.
- 3.75 We considered a number of options of varying complexity to mitigate against a RCP4 under-delivery risk. We provide further detail on the delivery risk, the options considered and how we reached our final decisions in Attachment E – Deliverability expenditure.⁷²

Revenue effects of our expenditure input decisions

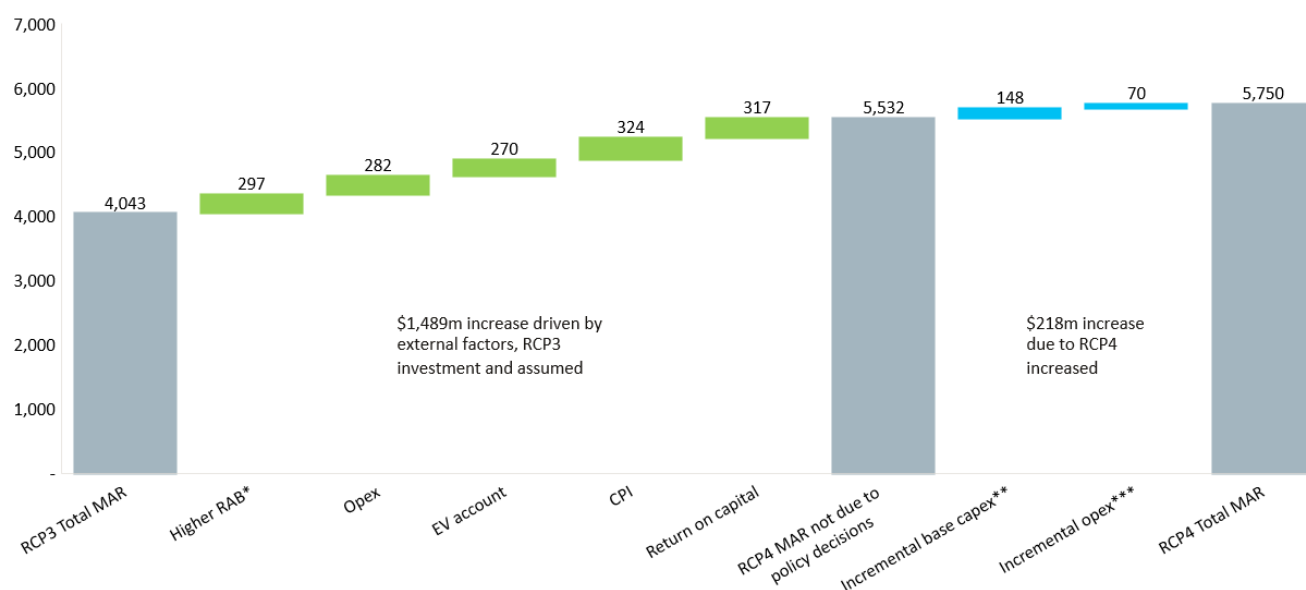
- 3.76 Our final decision on the smoothing profile of revenue for RCP4 is to set a smoothed price path, with the following steps and estimated growth rates:
- 3.76.1 15.11% for each of years one and two of RCP4; and
- 3.76.2 5.00% for each of years three to five of RCP4.
- 3.77 We note that the estimated growth rates will be finalised by November 2024 once we determine the final regulatory WACC to be used for setting the price path.
- 3.78 Figure 3.2 illustrates our estimated price path for RCP4 based on our final decisions for the inputs used to calculate the forecast MAR, from which we have generated a forecast SMAR by applying the rules in the Transpower IM.

⁷² Commerce Commission, Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Final decision Attachment E Deliverability expenditure.

Figure 3.2 Forecast SMAR and forecast MAR (RCP4) (\$ nominal)

Main drivers of revenue increase

- 3.79 The total estimated smoothed forecast revenue allowance (ie, forecast SMAR) we have approved for Transpower in RCP4 is \$5,766 million (nominal). This represents an increase of 42% from RCP3. We note that the forecast revenue allowance may change pending the setting of the regulatory WACC estimate in September.
- 3.80 Figure 3.3 illustrates the factors influencing the total building blocks based RCP4 revenue on which the smoothed price path is based (ie, the forecast MAR). The main drivers of change in the estimated forecast MAR compared to RCP3 (accounting for \$1,489 million of the total increase– in green) are:
- 3.80.1 an increase in estimated WACC shown as higher return on capital;
 - 3.80.2 an increase in inflation;
 - 3.80.3 a higher regulatory asset base value;
 - 3.80.4 additional opex and incentive payments (IRIS); and
 - 3.80.5 Transpower’s recovery of net under-recovered revenue from RCP3 in the economic value account (EV account).
- 3.81 Figure 3.3 also illustrates that the incremental investment that we assess and approve, accounts for about \$218 million of the total increase (in blue).

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

* inclusive of CPI on asset base

** inclusive of incremental WACC impact/CPI

*** inclusive of CPI

3.82 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. Higher interest rates and inflation mean the cost for Transpower to continue with its capex and opex programmes increases. 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 revised draft price path, which was estimated as at 1 April 2024, is 7.37%. We will be setting a final cost of capital for Transpower in September 2024 by applying the WACC formula in the Transpower IM.

How we smoothed Transpower's price path

3.83 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 final decision to have an estimated two-year step change of 15.11% in years one and two of RCP4.

3.84 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.

- 3.85 While the annual increases are significant uplifts in nominal terms, our price path smoothing will reduce price shocks consumers might have faced at the start of RCP4 if no smoothing were applied.
- 3.86 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 estimated revenues 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.
- 3.87 Further detail on our final decisions relating to Transpower's RCP4 revenue can be found in our final decision paper: Attachment A - Revenue path design.

Quality standards and grid output measures

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

Table 3.6 Final grid output measures for RCP4

Measure name	Revenue at risk (\$ million)	Quality standard	RCP4 measure description
AH: Asset Health	-	Yes	Proportion of assets in poor health for selected asset classes.
AP1: Asset Performance 1 – HVDC capacity availability	1	Yes	HVDC energy availability (%) of the inter-island HVDC system.
AP1.2: HVDC operational availability	-	No	Measures HVDC link's operational capacity limit calculated as the available operating capacity limit against the maximum capacity of the HVDC link.
AP2: Asset Performance 2 – HVAC selected asset availability	2	Yes	Average percentage of time selected HVAC assets are available during a disclosure year.
AP3: Asset Performance 3 – Return to service	-	No	Extent that Transpower keeps to planned outage times in relation to selected HVAC assets.
AP4: Asset Performance 4 – Return to services communications	-	No	Extent that Transpower communicates delays to planned outage return times in relation to selected HVAC assets.
CS1: Customer Service 1 – Overall customer satisfaction	-	No	Average level of overall customer satisfaction based on responses in an annual customer engagement survey.
CS2: Customer Service 2 – New and enhanced grid connections	-	No	Reports on delivery of new and enhanced grid connections.
GP1 – Grid Performance 1	7.6	Yes	Number of unplanned interruptions across all points of service (POS) in a sub-category during a disclosure year.
GP2 – Grid Performance 2	7.6	Yes	Average duration of unplanned interruptions greater than one minute, across all POS in a sub-category during a disclosure year.
GP4: Energy not served (previously labelled NR and GP3)	-	No	Amount of energy demand that is not supplied due to a transmission interruption to supply.

3.90 Transpower reviews the grid output measures before each regulatory period and 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.

- 3.91 The Verifier and stakeholders generally supported Transpower's proposed changes. However, some modifications raised concerns. Firstly, if the targets are too easy to achieve, the measure will not achieve its intended purpose, which is to incentivise improved or maintained quality of service. Secondly, if the quality standards for some measures are removed, there would be no incentive to maintain a minimum level of quality. We 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.
- 3.92 Following submissions on our draft decision, we have amended CS2 and AP1.2. We have also made some changes to the implementation in the drafting of our final decision in the revised draft IPP determination. Otherwise, our final decision remains the same as our draft decision.
- 3.93 Further detail on our final decision relating to Transpower's RCP4 quality standards and grid output measures can be found in our final decision paper - Attachment D: Quality standards and grid output measures.⁷³

⁷³ Commerce Commission, *Transpower's individual price-quality path for the regulatory control period commencing 1 April 2025: Final Decision Attachment D - Quality standards and grid output measures* (29 August 2024).

Chapter 4 IM amendments

Purpose of this chapter

- 4.1 This chapter provides a connection to our final reasons paper on IM amendments that give effect to five discrete issues considered in conjunction with the IPP reset.

IM amendments

- 4.2 In the course of the IPP reset process, we identified potential amendments to the Transpower IM 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.⁷⁴ We did not carry out a broader review of the Transpower IM, as this was done in the 2023 IM Review.
- 4.3 We have considered discrete IM amendments to give effect to five issues identified as part of the IPP reset:
- 4.3.1 implementing RAB indexation, following the 2023 IM Review;
 - 4.3.2 introducing a reopener to address expenditure deliverability risk;
 - 4.3.3 adjusting the Transpower IPP reopeners to allow for any consequential effects on quality standards;
 - 4.3.4 amending the forecast Economic Value (EV) adjustment formula to exclude any values associated with a deposit paid to secure a manufacturing slot for replacement HVDC Cook Strait cables; and
 - 4.3.5 correction of typographical and other drafting errors.
- 4.4 Further detail on the final IM amendments can be found in our Transpower IM amendment decision paper.

⁷⁴ 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. We published our draft decisions on the IM amendments on 29 May 2024 and sought submissions on our draft IM amendment decisions alongside our draft RCP4 IPP determination decisions.