

Introduction

The Integrated Transmission Plan (ITP) is a suite of documents that describes our plans for our regulated transmission business.

The ITP needs to summarise our expenditure for at least 10 years from the start of the following regulatory period. We are also required to provide annual updates.

Regulatory requirements for the ITP and supporting documents

The regulatory requirements for an ITP are set out in Schedule E of the Capex IM. In this report we summarise how our 2023 ITP meets these requirements.

For 2023, the RCP4 Proposal document includes information we usually provide in our annually disclosed ITP Narrative. The schedules accompanying the RCP3 Proposal document are consistent with the RCP3 regulatory templates (RT) agreed with the Commerce Commission and cover the ITP schedules' information requirements.

1. ITP requirements

PART 3 SUBPART 1 Integrated transmission plan (ITP overview)

SUBPART 1 Integrated transmission plan

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

Schedule E1 clauses (ITP overview)

E1 Information to be included in integrated transmission plan

- (1) The information that must be included is:
 - (a) an ITP narrative; and
 - (b) ITP supporting documents.
- (2) The information listed in this schedule in relation to the **ITP narrative** is, unless otherwise stated, required in respect of a period of at least ten **disclosure years** commencing on the first day of the next **regulatory period**.
- (3) The robustness of information provided must be commensurate with the degree of certainty **Transpower** may be reasonably expected to have in respect of it.

Schedule E2 clauses (ITP Narrative)

E2 Information to be included in the ITP narrative

- (1) with reference, where relevant, to the information contained in the ITP supporting documents, a high level-
 - (a) overview of the expenditure and outputs which are proposed for the first **regulatory period** to which the **ITP narrative** relates coinciding with the **disclosure year** and forecast expenditure needs and outputs over the next **regulatory period**; RCP4 Proposal Chapters 8 and 12, Regulatory Templates 1
 - (b) overview of the key assumptions and scenarios used to determine forecast expenditure and **grid outputs**; RCP4 Proposal Chapters 5, 6, 8, and 10
 - (c) assessment of the key uncertainties in the key assumptions, and forecast expenditure and grid outputs; RCP4 Proposal Chapters 5, 6, 8, and 10
 - (d) assessment of the key risks affecting forecast expenditure; RCP4 Proposal -Chapters 4, 5, and 6. RCP4 Regulation Templates 4.
 - (e) assessment of how the key uncertainties and key risks will affect **Transpower's** ability to deliver the forecast **grid outputs**; RCP4 Proposal Chapters 4, 5, and 6. RCP4 Regulation Templates 4.
 - (f) description of the proposed measures to manage and mitigate the key uncertainties and key risks; RCP4 Proposal -Chapters 4, 5, and 6. RCP4 Regulation Templates 4.
 - (g) description of the key relationships, including any synergies or trade-offs, within and between the following:
 - (i) **projects** and **programmes** assumed for the purpose of determining the forecast expenditure; and RCP4 Proposal -Chapters 4, 5, 6, and 8.
 - (ii) the forecast **grid outputs**; and RCP4 Proposal Chapter 7
 - (h) explanations of how key aspects of the ITP narrative take account of any changes in Transpower's strategic directions or scenarios since the publication of the previous ITP narrative, including by reference to any new reports by Transpower on strategic directions or scenarios. RCP4 Proposal -Chapters 1, and 2



Schedule E2 clauses (ITP Narrative)

- (2) forecast expenditure in the form of a schedule in respect of each disclosure year for-
 - (a) operating expenditure (disaggregated by major areas of expenditure); Regulatory Templates 1
 - (b) base Capex (disaggregated by major areas of expenditure); and Regulatory Templates 1
 - (c) approved major Capex (disaggregated by project); Regulatory Templates 1
- (3) forecast grid outputs in the form of a schedule in respect of each disclosure year for-
 - (a) each **revenue-linked grid output measure** described in the **base capex proposal** relating to the first **regulatory period** to which the **ITP narrative** relates; RCP4 Proposal Chapter 7, Regulatory Templates 2
 - (b) all proposed **grid output measures** other than those referred to in (a) above described in that **base capex proposal** relating to the first **regulatory period**; and RCP4 Proposal Chapter 7, Regulatory Templates 2
 - (c) major capex project outputs assumed to be delivered by each approved major capex project; Regulatory Templates 1
- (4) a summary of major capex projects under development, including:
 - (a) a summary of the key issues being addressed with reference to the planning report which is an ITP supporting document; RCP4 Proposal Chapter 10
 - (b) estimates of likely capital expenditure; and Regulatory Templates 1
 - (c) estimates of project timings, including those relating to consultation periods, submissions for approval, construction, and **commissioning**.

 Regulatory Templates 1



Supporting documents

E3 ITP supporting documents

The following **documents**, prepared or updated no more than two years before the submission date:

- (a) an asset management plan that includes the information specified in clause E4;
 - **2022 Asset Management Plan (AMP)**
- (b) a planning report that includes the information specified in clause E5, and **2022 Transmission Planning Report** (TPR)
- (c) a report setting out **Transpower's** output and performance objectives that includes the information specified in clause E6.

2022 Service Measures Report (SMR)



2. AMP requirements

Schedule E4 (Asset Management Plan)

E4 Information to be included in the asset management plan

- (1) overall asset management strategy and objectives;
- AMP Section 3 Our Asset Management Approach
- AMP Section 4 Grid Asset Class Plans
- AMP Section 5 ICT Asset Plans
- (2) overall asset risk management framework; and
- AMP Section 3 Our Asset Management Approach
- (3) asset management plans for each asset class covering;
 - (a) specifications for asset life cycle activities;
 - (b) general condition of existing assets;
 - (c) intended programmes of asset management works;
 - (d) routine maintenance and repair plans for assets; and
 - (e) **programmes** for routine maintenance and repair plans.
- AMP Section 4 Grid Asset Class Plans
- AMP Section 5 Grid Asset Class Plans
- AMP Section 6 ICT Asset Plans
- AMP Section 7 Business Support Asset Plan

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3. Grid Planning Report requirements

Schedule E5 (Planning Report)

E5 Information to be included in the planning report

- (1) the capabilities of the existing grid;
- TPR Chapter 2 Existing National Grid
- TPR Chapter 6 Grid Backbone
- TPR Chapters 7 to 19 Regions
- (2) demand and generation forecasts for the forthcoming 10 years;
- TPR Chapter 3 Forecasting demand and generation
- TPR Chapters 7 to 19 Regions
- (3) the grid's ability to meet future demand and generation needs;
- TPR Chapter 5 Major Industry Trends
- TPR Chapter 6 Grid Backbone
- TPR Chapters 7 to 19 Regions
- (4) the role of the **grid** in facilitating generation; and;
- TPR Chapter 3 Forecasting demand and generation
- TPR Chapter 6 Grid Backbone
- TPR Chapters 7 to 19 Regions
- (5) grid investment that may be required to meet future needs for the next 10 years and beyond, by way of-
 - (a) grid backbone transmission plans for the main North and South Island transmission corridors and for the HVDC link; and
 - TPR Chapter 4 Enhancement and Development Portfolio
 - TPR Chapter 6 Grid Backbone
 - (b) a set of regional plans;
 - TPR Chapter 4 Enhancement and Development Portfolio
 - TPR Chapters 7 to 19 Regions

4. Service Measures Report requirements

Schedule E6 (Report on Output and Performance Objectives)

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

- (1) a longer-term view of the grid outputs and associated grid performance that will be economic to achieve, taking account of-
- (a) performance expectations of end users of electricity, including in relation to the value of unserved energy;
- (b) the costs of delivering changes in the level of grid outputs;
- (c) the impact of committed expenditure on grid outputs; and
- (d) any forecast degradation in asset condition or performance which will affect grid outputs;
- SMR Section 2 Our Services Framework
- SMR Section 3 RCP3 performance and asset health measures
- SMR Section 3.4 Linking Grid Outputs to planning
- SMR Section 3.5 Performance Evaluation of Measures
- (2) a detailed description on the analysis, assumptions and approach used to determine the longer-term view; and
- SMR Section 3 RCP3 Performance and asset health measures
- SMR Section 3.4 Linking Grid Outputs to planning
- (3) an approach to convert the longer-term view to appropriate shorter term objectives for grid outputs.
- SMR Section 3.4 Linking Grid Outputs to planning