2018 ITP COMPLIANCE REPORT

INTRODUCTION

The Integrated Transmission Plan (ITP) is a suite of documents that describes our plans for our regulated transmission business. In the second to last year before a Regulatory Control Period (RCP) we must submit an ITP to the Commission.

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.

OUR 2018 ITP

For 2018, the RCP3 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.

For further information on our RCP3 Proposal document and the 2018 ITP, refer to section 1.5 of the RCP3 Proposal document.

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 2018 ITP meets these requirements.
### 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**;

- RCP3 Proposal Section 2.4 – Proposal overview
- RCP3 Proposal Chapter 5 – Renewal capex
- RCP3 Proposal Chapter 6 – Grid opex
- RCP3 Proposal Chapter 7 – ICT capex and opex
- RCP3 Proposal Chapter 8 – Support capex and opex

(b) overview of the key assumptions and scenarios used to determine forecast expenditure and **grid outputs**;

- RCP3 Proposal Section 2.1 – Strategic environment
- RCP3 Proposal Section 2.4 – Proposal overview
- RCP3 Proposal Chapter 3 – Overview of expenditure chapters
- RCP3 Proposal Chapter 4 – Enhancement and Development
- RCP3 Proposal Chapter 5 – Renewal capex
- RCP3 Proposal Chapter 6 – Grid opex
- RCP3 Proposal Chapter 7 – ICT capex and opex
- RCP3 Proposal Chapter 8 – Support capex and opex

(c) assessment of the key uncertainties in the key assumptions, and forecast expenditure and **grid outputs**;

- RCP3 Proposal Section 2.1 – Strategic environment
- RCP3 Proposal Section 2.4 – Proposal overview
- RCP3 Proposal Section 4.3 – Changes in external environment (Enhancement and Development)
- RCP3 Proposal Section 5.1 – Overview (Renewal capex)
- RCP3 Proposal Section 6.1 – Maintenance
- For further information, see section 2 of the 2018 Asset Management Plan (AMP).

(d) assessment of the key risks affecting forecast expenditure;

- RCP3 Proposal Section 2.2 – Business capability
- RCP3 Proposal Section 2.4 – Proposal overview
- RCP3 Proposal Section 5.1 – Overview (renewal capex)
- RCP3 Proposal Section 6.1.4 – Adjustments to expenditure forecast (maintenance)
- RT04 – Information Schedules (Risk Register)
- For further information, see section 3.4 of the 2018 Grid Outputs Report.

(e) assessment of how the key uncertainties and key risks will affect Transpower’s ability to deliver the forecast **grid outputs**;

- RCP3 Proposal Section 2.4.2 – Output measures, targets and incentives
- RCP3 Proposal Section 5.1 – Overview (Renewal capex)
- RCP3 Proposal Section 6.1 – Maintenance
- For further information, see section 3.4 of the 2018 Grid Outputs Report.

(f) description of the proposed measures to manage and mitigate the key uncertainties and key risks;

- RCP3 Proposal Section 2.2.2 to 2.2.5 – Improvements in strategy and risk management, grid planning and ICT planning; improvement priorities
- RCP3 Proposal Section 2.3.5 – Delivery planning
- RT04 – Information Schedules (Risk Register)

(g) description of the key relationships, including any synergies or trade-offs, within and between the following:
(i) **projects** and **programmes** assumed for the purpose of determining the forecast expenditure; and

(ii) the forecast **grid outputs**.

- RCP3 Proposal Section 2.2.3 – Improvements in grid planning
- RCP3 Proposal Section 2.3.3 – Solution prioritisation
- RCP3 Proposal Section 6.1.7 – Predictive Maintenance
- RCP3 Proposal Section 2.4.2 – Output measures, targets and incentives

(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.

- RCP3 Proposal Section 2.1 – Strategic environment

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**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);

- RT01 Expenditure Forecasts

(b) **base Capex** (disaggregated by major areas of expenditure); and

- RT01 Expenditure Forecasts

(c) approved **major Capex** (disaggregated by project);

- RT01 Expenditure Forecasts

(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;

- RT02 Output Incentives Model
- RCP3 Proposal Section 2.4 – Proposal overview

(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

- RCP3 Proposal Section 2.4 – Proposal overview

(c) **major capex project outputs** assumed to be delivered by each approved **major capex project**;

- RT01 Expenditure Forecasts

(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**;

- RCP3 Proposal Section 2.4 – Proposal overview

(b) estimates of likely **capital expenditure**; and

- RCP3 Proposal Section 2.4 – Proposal overview

(c) estimates of project timings, including those relating to consultation periods, submissions for approval, construction, and **commissioning**.

- RT01 Expenditure Forecasts (Major Capex and Outputs)
## Supporting documents

### ITP Clause E3

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;
   - 2018 Asset Management Plan (AMP)
(b) a planning report that includes the information specified in clause E5, and
   - 2018 Transmission Planning Report (TPR)
(c) a report setting out Transpower’s output and performance objectives, that includes the information specified in clause E6.
   - 2018 Grid Outputs Report (GOR)

## Schedule E4 (Asset Management Plan)

### E4 Information to be included in the asset management plan

1. Overall asset management strategy and objectives;
   - AMP Section 1 – Introduction
   - AMP Section 3 – Our Approach to Asset Management
   - AMP Section 4 – Grid Asset Class Plans
   - AMP Section 5 – ICT Asset Plans

2. Overall asset risk management framework; and
   - AMP Section 3 – Our Approach to Asset Management

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 – ICT Asset Plans
   - AMP Section 6 – Business Support Asset Class Plan
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 2 – Existing National Grid
   - TPR Chapter 3 – Investment Uncertainties
   - TPR Chapters 7 to 19 – Regions

(3) the grid’s ability to meet future demand and generation needs;
   - TPR Chapter 6 – Grid Backbone
   - TPR Chapters 7 to 19 – Regions

(4) the role of the grid in facilitating generation; and;
   - TPR Chapter 3 – Investment Uncertainties
   - 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;
      - TPR Chapter 6 – Grid Backbone
   (b) a set of regional plans;
      - TPR Chapters 7 to 19 – Regions
Schedule E6 (Report on Output and Performance Objectives)

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.

- GOR Section 2 – Grid Output Measures Framework
- GOR Section 3.4 – Linking grid outputs to planning
- GOR 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

- GOR Section 3 – Proposed refinements for RCP3
- GOR Sections 3.2 and 3.3 – Proposed service performance and asset health measures and targets
- GOR 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.

- GOR Section 3.4 – Linking grid outputs to planning