Transgrid

People. Power. Possibilities.

2023-28 RIN Schedule 1 Supporting Document

2023-28 Transgrid Revenue Proposal

31 January 2022

Contents

1. Purpose of this document

This document provides information required by clauses 1.6, 21 and 22 of Schedule 1 of the Reset Regulatory Information Notice (RIN) for Transgrid's 2023-28 regulatory period.

- Clause 1.6 material assumption
- Clause 21 Corporate Structure
- Clause 22 Map of Transmission System

2. RIN clause 1.6 material assumption

2.1. Reset RIN requirements

Clause 1.6 of Schedule 1 of the Reset RIN sets out the material assumption information requirements as follows:

1.6 Provide for each material assumption identified in the response to paragraph 1.5(b):

(a) its source or basis;

(b) if applicable, its quantum;

(c) whether, and how, the assumption has been applied and was taken into account; and

(d) the effect or impact of the assumption on the capital and operating expenditure forecasts in the forthcoming regulatory control period taking into account:

(i) the actual expenditure incurred during the current regulatory control period; and

(ii) the sensitivity of the forecast expenditure to the assumption.

2.2. Response to Reset RIN requirements

Table 2-1 and Table 2-2 provides information on the key opex and capex assumptions underpinning our 2023-28 Revenue Proposal.

Table 2-1: Opex key assumptions

Key assumption		Context
Legislative and regulatory obligations	Our capex forecasts are based on our current legislative and regulatory obligations and our Licence requirements.[1]	The NER clause 6A.6.6(a)(2) requires that our total 2023-28 opex forecast is required to comply with all applicable regulatory obligations and requirements for the provision of prescribed transmission services. This is achieved by applying the AER's base-step-trend forecasting approach as required under the AER's Expenditure Forecast Assessment Guideline. We have included two step changes to address the costs arising from changes to our regulatory obligations in the 2023-28 regulatory period: • Cyber security • ISP preparatory works
Network reliability	Our opex forecast will maintain, but not improve, service outcomes consistent with clause 6A.6.6(a)(3)(iii) of the NER.[2]	This is achieved by applying the AER's base-step-trend forecasting approach as required under the AER's Expenditure Forecast Assessment Guideline. In accordance with this approach, we have adopted the AER's rate of change assumptions and productive growth adjustment factor. This ensures that our opex forecast will maintain but not improve our service performance in the next period.
Efficient opex base year	Our 2021-22 opex provides a reasonable basis for our opex forecasts and is representative of our requirements to sustainably provide our services.	We are using our board approved 2021-22 budget as the base year for our 2023-28 opex forecast: • This is consistent with well-accepted regulatory practice to use the penultimate year as the base, and • our 2021-22 opex is efficient. This is discussed Chapter 7 of our Revenue Proposal. We will update our base year opex to reflect our actual 2021-22 opex in our Revised Revenue Proposal which is due to the AER in November 2022.
Cost allocation and capitalisation policy	Our opex forecasts reflect our expenditure capitalisation policy and our CAM, which provides an appropriate basis for attributing and allocating costs to, and between, our prescribed transmission and other services.	Our CAM and capitalisation standard are submitted with our Revenue Proposal. We have updated our capitalisation standard to reflect recent changes in accounting standards. This discussed in section 7.5.1 of our Revenue Proposal. Our CAM has been updated to reflect minor changes only to our ownership and operational structure.
Opex trend assumptions	Our forecast changes in input costs, output growth and productivity are reasonable and	We have adopted the AER's rate of change assumptions and productive growth adjustment

[1] Licences are issued under the Electricity Supply Act 1995 (NSW) and Electricity Transmission Supply Code July 2016 Utilities (Technical Regulation) Electricity Transmission Supply code, 2016

[2] NER clause 6A.6.6, total forecast opex is required to maintain the quality, reliability and security of supply of prescribed transmission services

Key assumption		Context
	appropriately reflect the trend in our future opex, given our (adjusted) opex base year and expected growth in RAB	factor as set out in its 2021 Transmission Benchmarking Report in forecasting opex. As discussed in Chapters 4 and 7 of our Revenue Proposal our opex is efficient.
Cost escalations	The cost escalations that we have applied in developing our opex forecasts are representative of the increased costs that we will incur in the next period[3]	We have applied real labour cost escalators determined by independent consultants BIS Oxford to our labour costs. At this stage, we have not applied a real increase in materials costs although we forecast that the cost of materials will increase at a rate faster than CPI.
Inflation	The inflation that we have has applied in developing our opex forecasts is representative of the inflation-related costs that we will incur in the next period and is consistent with the AER-preferred inflation forecasting method.[4]	We have forecast expected inflation based on the AER's December 2020 final decision on the treatment of expected inflation,[5] which is also reflected in the AER's PTRM.
Cost pass throughs and contingent projects	The AER will approve our nominated pass through events and contingent projects	In addition to the defined events[6] in the NER, we have proposed four nominated pass through events for the 2023-28 period: • insurance coverage event • insurer's credit risk default event • natural disaster event • terrorism event These events are unpredictable and beyond our control can substantially change our expenditure within a regulatory period. These events are not included in our opex forecasts. Pass-through events are required so that we can recover (or pass through) the costs of these events should they occur in the next regulatory period. Our contingent projects as set out in Chapter 17. These projects are not included in our opex forecasts will only proceed subject to the AER determining that they have met the triggers.

[3] Real labor cost escalators are based on BIS Oxford Economic forecasts
[4] AER, Regulatory Treatment of Inflation, Australian Energy Regulator, December 2020
[5] AER, Final position – regulatory treatment of inflation, December 2020.
[6] In accordance with NER rule 6A.6.9(a)

Table 2-2: Capex key assumptions

Key assumption		Context
Legislative and regulatory obligations	Our capex forecasts are based on our current legislative and regulatory obligations and our Licence requirements.	The NER clause 6A.6.7(a)(2) requires that our total 2023-28 capex forecast is required to comply with all applicable regulatory obligations and requirements for the provision of prescribed transmission services This is achieved by applying a bottom up build to determine our forecast capex, based on our plans, policies and procedures which in turn reflect legislative and regulatory obligations and our Licence requirements. Our capex forecast has been prepared consistently with the approach taken for budgetary, planning and governance processes used in the normal running of our business.
Network reliability	Our capex forecast will maintain, but not improve, service outcomes consistent with clause 6A.6.7(a)(3)(iii) of the NER.	As discussed in chapters 5 and 8 of our Revenue Proposal and our Repex Overview Paper our forecast capex will enable us to: • maintain our network risk index at current levels over the 2023-28 regulatory period, and • maintain a consistently high level of reliability over the 2023-28 regulatory period.
Demand forecasts	Our forecasts are required to meet DNSPs' connection point demand forecasts (published in our TAPR) reconciled to AEMO's forecasts.	Our demand forecasts are published in our 2021 Transmission Annual Planning Report. These are discussed in Chapter 8 of our Revenue Proposal and our Augex Overview Paper.
Value of customer reliability (VCR)	Our capex forecasts reflect AER's VCR, which represents the monetary value different types of customers place on having access to a reliable electricity supply. The VCR is a key input into how we determine when to replace assets on our network.	We have relied on the VCR in the AER's most recent 2019 final decision on VCR. This is an input in our network risk index discussed in section 4.2 of our Revenue Proposal.
Unit rates and project costs	The unit rates and project costs that we have applied in developing our capex forecasts are representative of the costs that will be incurred in the next regulatory period.	We forecast the costs of our Augex and Repex projects and programs using our MTWO estimating database which reflects actual outturn costs built up over more than 10 years. The costs of some unitised Repex programs are based on historical actual costs for similar work. These costs do not reflect impacts associated with the long-term effects of the COVID-19 pandemic. This is discussed in Chapter 8 of our Revenue Proposal

Key assumption		Context
Cost allocation and capitalisation	Our capex forecasts reflect our capitalisation policy and our CAM, which provides an appropriate basis for attributing and allocating costs to, and between, our prescribed transmission and other services.	Our CAM and capitalisation standard are submitted with our Revenue Proposal. We have updated our capitalisation standard to reflect recent changes in accounting standards. This discussed in section 7.5.1 of our Revenue Proposal. Our CAM has been updated to reflect minor changes only to our ownership and operational structure.
Cost escalations	The cost escalations that we have applied in developing our capex forecasts are representative of the increased costs that we will incur in the next period	We have applied real labour cost escalators determined by independent consultants BIS Oxford to our labour costs. At this stage, we have not applied a real increase in materials costs although we forecast that the cost of materials will increase at a rate faster than CPI.
Inflation	The inflation that we have has applied in developing our capex forecasts is representative of the inflation-related costs that we will incur in the next period and is consistent with the AER-preferred inflation forecasting method	We have forecast expected inflation based on the AER's December 2020 final decision on the treatment of expected inflation,[7] which is also reflected in the AER's PTRM.
Cost pass throughs and contingent projects	The AER will approve our nominated pass through events and contingent projects	In addition to the defined events[8] in the NER, we have proposed four nominated pass through events for the 2023-28 period: • insurance coverage event • insurer's credit risk default event • natural disaster event • terrorism event These events are unpredictable and beyond our control can substantially change our expenditure within a regulatory period. These events are not included in our capex forecasts. Pass-through events are required so that we can recover (or pass through) the costs of these events should they occur in the next regulatory period. Our contingent projects as set out in Chapter 17. These projects are not included in our capex forecasts and will only proceed subject to the AER determining that they have met the triggers.

[7] AER, Final position – regulatory treatment of inflation, December 2020.
[8] In accordance with NER rule 6A.6.9(a)

3. RIN clause 21 Corporate Structure

3.1. Reset RIN requirements

Clause 21 of Schedule 1 of the Reset RIN sets out the corporate structure information requirements as follows:

21. Corporate Structure

21.1 Provide charts that set out

(a) the group corporate structure of which Transgrid is a part; and

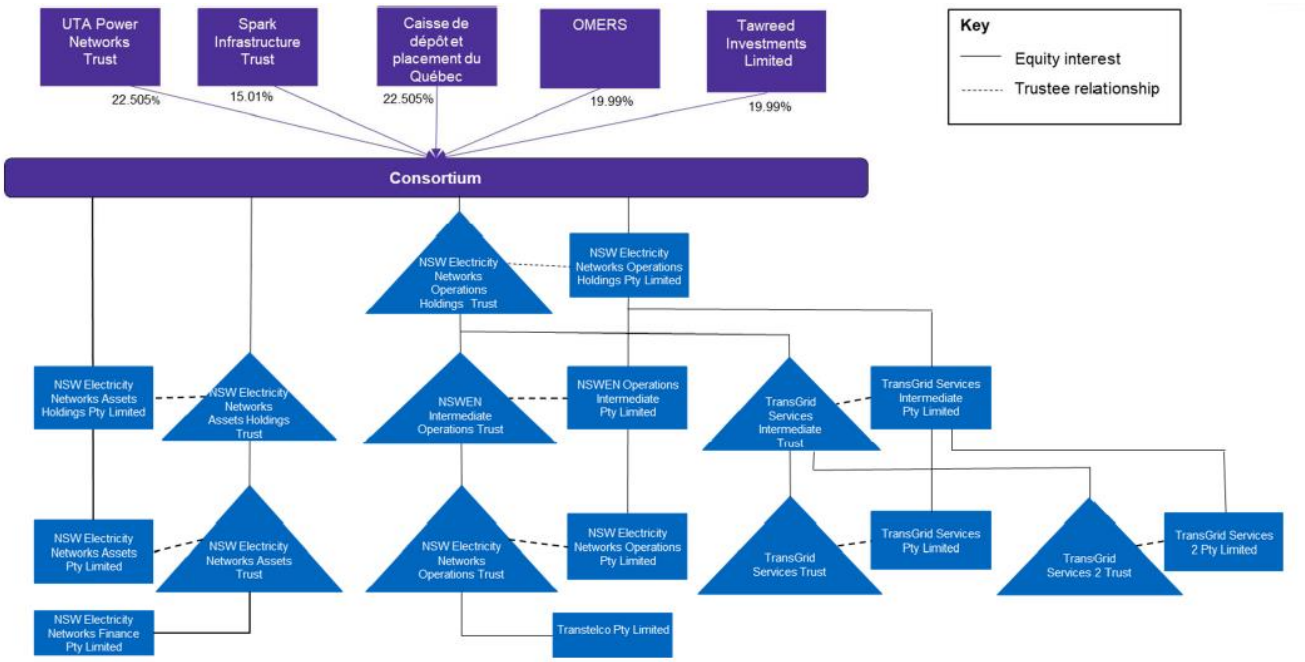
(b) the organisational structure of Transgrid.

3.2. Response to Reset RIN requirements

3.2.1. Corporate structure

Figure 3-1 provides the information required by clause 21.1(a) of Schedule 1 of the Reset RIN.

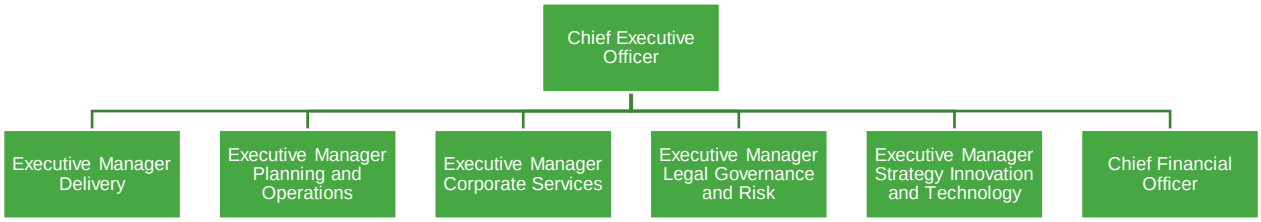
Figure 3-1: Transgrid corporate structure



3.2.2. Organisational structure

Figure 3-2 provides the information required by clause 21.1(b) of Schedule 1 of the Reset RIN.

Figure 3-2: Transgrid organisational structure



4. RIN clause 22 Map of transmission system

4.1. Reset RIN requirements

Clause 22 of Schedule 1 of the Reset RIN sets out the transmission system information requirements as follows:

22. Map of Transmission System

22.1 Provide a map of Transgrid's transmission system at the time of submitting information in response to this notice. This map, together with any appropriate accompanying notes, should identify and describe the locations and voltages of existing transmission lines and other major network assets.

22.2 Provide a separate document identifying the locations and different ratings of transmission lines and other major network assets.

4.2. Response to Reset RIN requirements

4.2.1. Transmission system map

Figure 4-1 and Figure 4-2 provide the information required by clause 22.1 of Schedule 1 of the Reset RIN.

Figure 4-1: Transgrid's electricity network map

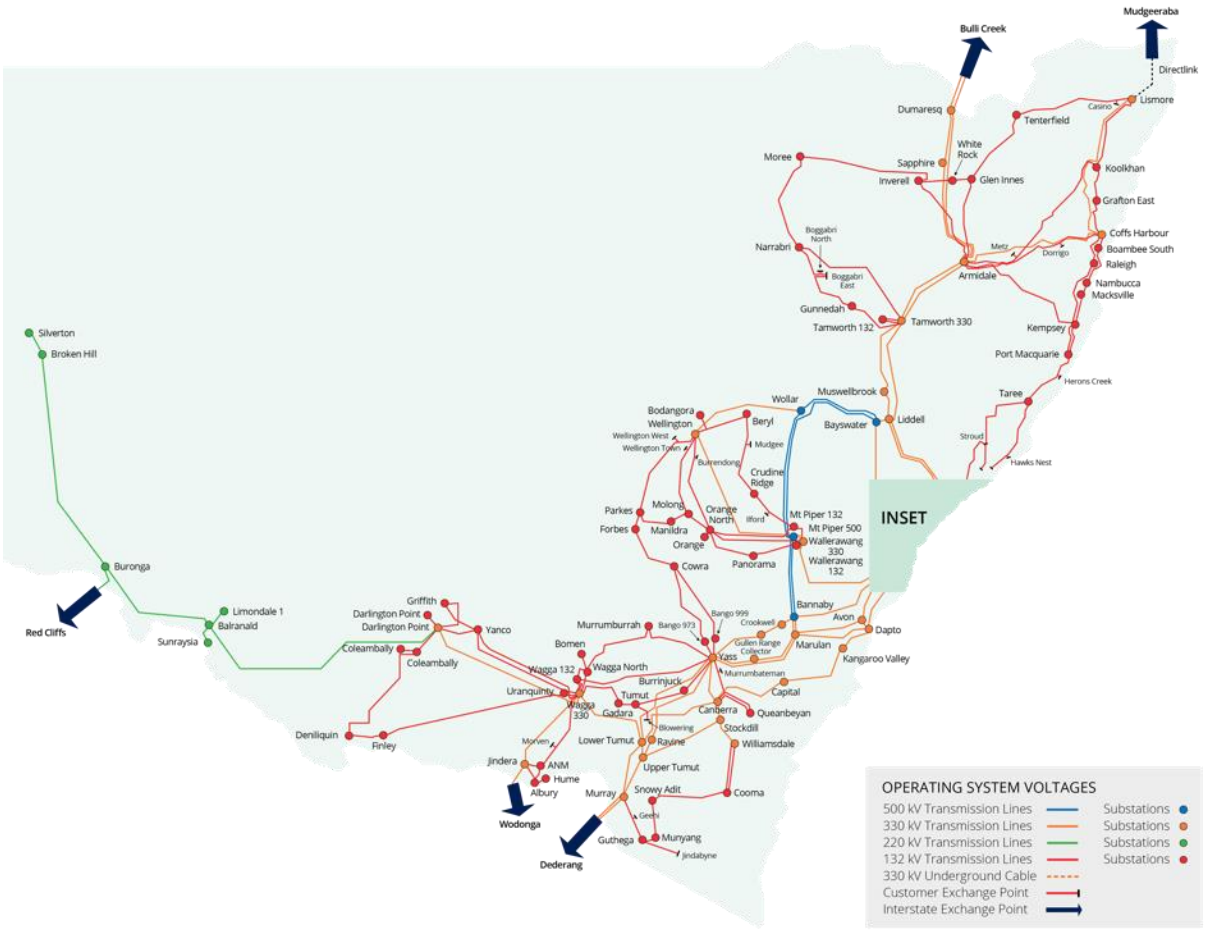
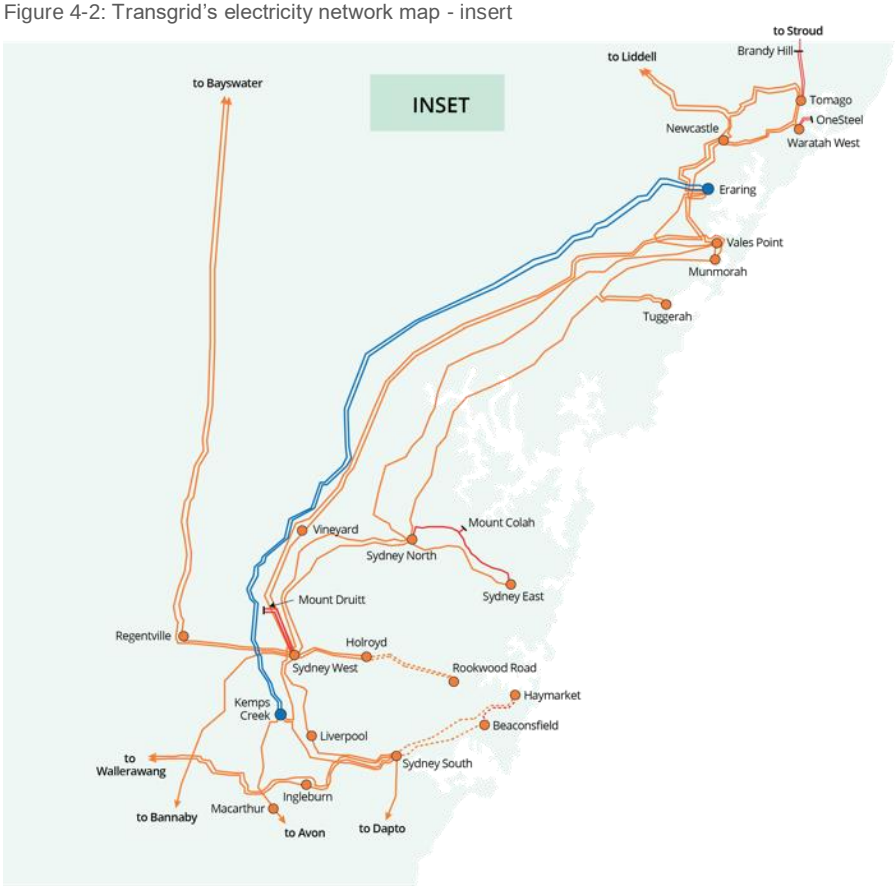


Figure 4-2: Transgrid's electricity network map - insert



4.2.2. Ratings of transmission lines and major network assets

Refer to RIN Workbook 1 – Forecast, Table 7.9.3 Network Limit Information for ratings of transmission lines and major network assets in substations. The locations of the transmission lines and major network assets in substations are shown in Figure 4-1 and Figure 4-2.