Waratah Super Battery (WSB) Non-contestable Revenue Proposal

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Transgrid

Benefit for customers

The Project will play an essential role in meeting the needs of electricity customers at the lowest total cost.

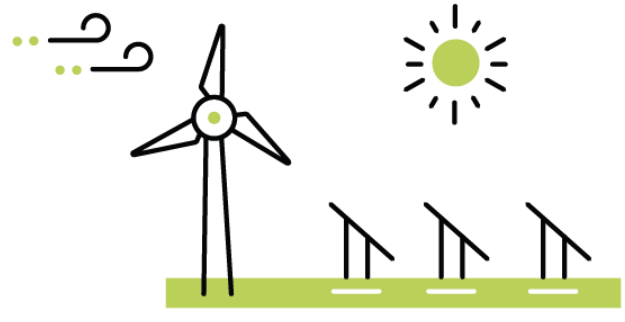
The WSB Project will deliver the following benefits to electricity customers:

- Unlock the potential capacity of the existing network through the network augmentation thereby **allowing more existing generation to be shared**, and
- through the SIPS, allow power flows across the network to be monitored and control the operation of the battery energy storage systems (BESS) and paired generators. The SIPS will act as a 'shock absorber' in the event of any sudden power surges, including from bushfires or lightning strikes.

Affordability

Safety, security and reliability

Support the transition



Overview of WSB Revenue Proposal

- Our WSB non-contestable Revenue Proposal is subject to the EII regulatory framework
- It is the first:
  - non-contestable Revenue Proposal under the EII regulatory framework and
  - Revenue Proposal for the WSB project
- We have maintained consistency with the AER's 2023-28 Revenue Proposal for Prescribed Transmission Services and have applied the AER's 2022 RoRI

We have adopted the decisions in the AER's 2023-28 Revenue Determination for:

- labour and materials escalation rates
- nominated pass through events
- standard asset lives with two exceptions, add new asset classes for
  - SIPS control and
  - financeabiltiy
- debt raising cost unit rate (as a placeholder), and
- equity raising cost parameters

Forecast opex

This shows our total forecast opex of c. $24.9 million, including debt raising costs, by category and overviews the approach we have used to forecast it.

Opex category	$ Million Real 2023-24	Basis for Opex forecast
Maintenance costs (excluding labour escalation)	2.1	Current and proposed maintenance activity unit rates multiplied by projected volumes of activities
Operating costs (excluding labour escalation)	20.2	Projected labour requirements multiplied by labour rates for each resource type and expected annual external audit expenses
Insurance	1.7	Based on independent report from Aon
Real input cost escalation	0.6	Labour escalators as set out in the AER's 2023-28 Revenue Determination
Debt raising costs	0.5	These costs are calculated in the EII PTRM by multiplying the opening RAB value for each year by a debt raising cost benchmark
Total forecast opex[1]	**24.9**	

Notes: 1. Totals may not add due to rounding

Based on a bottom-up build and reflects:

(a) the number and cost of permanent and casual staff needed to operate and/or maintain the assets

(b) the cost of external contractors, consultants and other service providers providing operating and/or maintenance services

(c) insurance and other ongoing expenses exclusively associated with the regulated network assets.

Forecast capex

- This shows our total forecast capex of c. $255.4 million, including equity raising costs, by category and overviews the approach we have used to forecast it.
- We expect that at least 71 per cent of the capex for WSB will be based on market prices obtained through competitive tender processes

Total forecast capex for WSB by category ($M, Real 2023-24)

Capex category	Scope	Capex $M
Transmission lines	• Uprate transmission line 39 Bannaby to Sydney West and lines 3L/4 and 5 Yass to Marulan • Costs based on D&C contract, and rates from our procurement panel	69.8
Substations	• uprate equipment across 22 substations, 11 in Northern NSW and 11 in Southern NSW • Costs based on D&C contract, and rates from our procurement panel	108
SIPS control	• Design, install and commissioning works • Establish a new underground fibre optic cable link between our Armidale substation and a paired generator site • Procure SIPS control panels and equipment • Cost based on quotations, rate from our procurement panel and internal estimates	19.3
Labour and indirect costs	• Project management and other corporate and transaction support costs • Actual capex reflects records in Ellipse and forecast capex internal bottom-up build	56.9
Real input costs	• Internal bottom-up build using AER's forecast real labour cost escalators	0.3
Equity raising costs	• Benchmark calculation using the AER's assumptions	0.7
Total capex		**255.4**

Revenue Adjustments

- The EII regulatory framework provides that a revenue determination may include provision for the adjustment
- These adjustment mechanisms are additional to the pass-through provisions.
  - In some cases these are automatic, AER not be required to review them – annual debt and inflation updates
  - In other cases, these are not automatic, AER would be required to review them

Automatic adjustments

We propose three non-automatic adjustments

1. Actual inflation,
2. Return of debt update to the allowed rate of return
3. Additional contractual payments to EnergyCo

Non-automatic adjustments

We propose three non-automatic adjustments:

- Paired Generation Cost – actual costs for future rounds of paired generation
- Unavoidable Contract Variations including:
  - Changes in the final design of the Project
  - Changes in civil works costs
- Contractor Force Majeure event - which disrupt the contractor during construction phase and result in additional construction costs

Application of the CESS

- Capex for NSW Roadmap and ISP projects is extremely challenging to accurately forecast due to the scale, complexity of each project
- Probability of overspending against the AER's allowance is greater than the probability of underspending – risk is asymmetric
- With NSW projects, no ability to reprioritise capex – this means the CESS penalties could be large
- If faced with large CESS penalties, the project would generate less than the return that investors would reasonably require to invest
- The characteristics of ISP projects and the current market conditions that give rise to the asymmetric risk are:

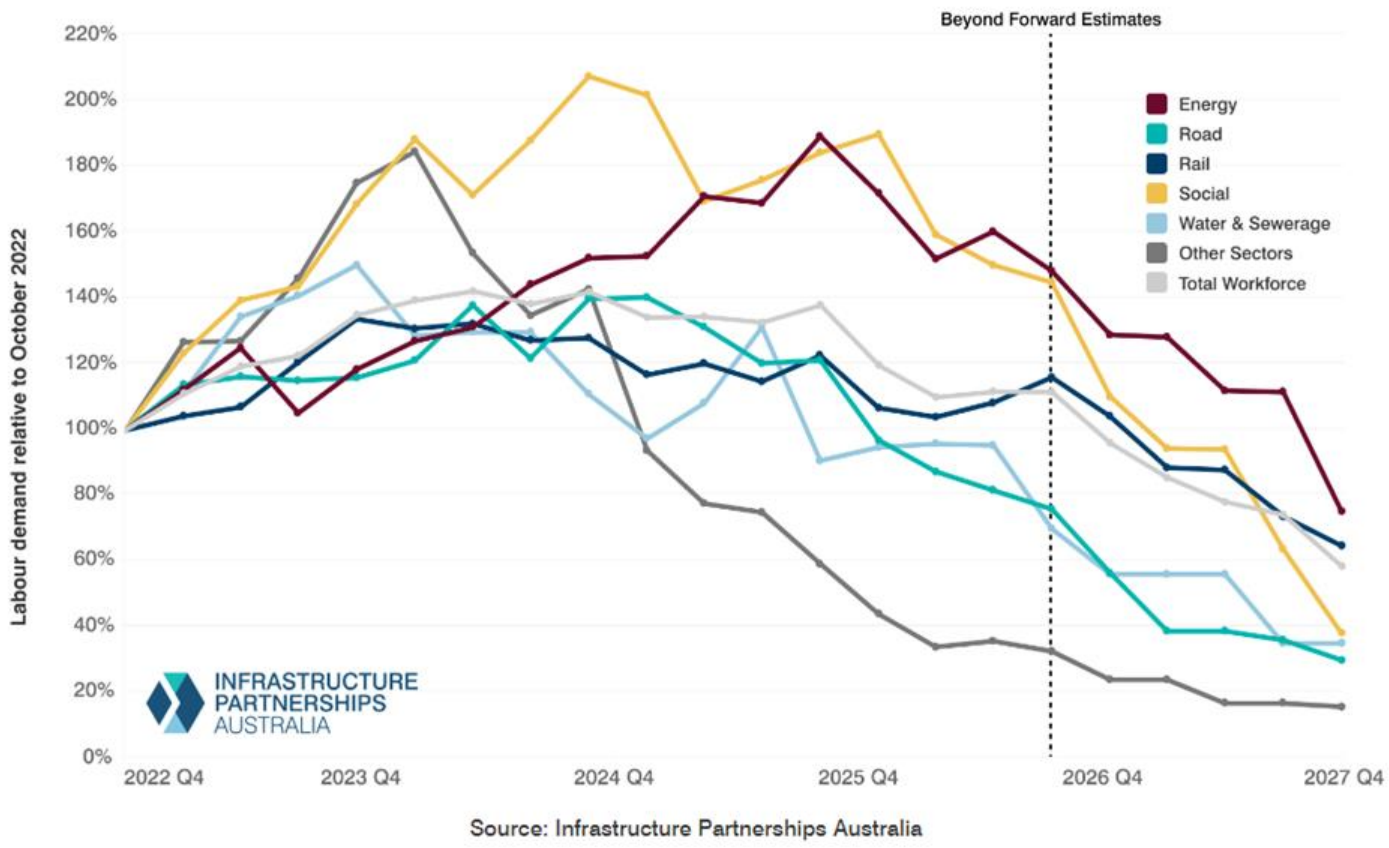
1. **Increasing labour costs** – labour costs are increasing due to the surge in construction activities / demand for construction workers,
2. **Increasing materials costs** – due to surge in construction activity globally, supply chain disruptions and fluctuations in global commodity market prices for raw materials.
3. **The inflation outlook remains uncertain** - actual inflation over the 12 months ending June 2022 –
   - headline CPI increased by 6.1% highest year-ended CPI inflation since early 1990s.
   - RBA forecasts CPI inflation of 6.3% for 12 months to June 2023, which is even higher.
   - Producer Price Index (PPI) for the manufacturing sector increased by 17.7% over 12 months to June 2022.
3. **Contractors are unwilling or unable to offer fixed price contracts –** They are presently offering contracts with flexible pricing and risk-sharing arrangements to accommodate changes and unforeseen circumstances and safeguard against potential losses

We have proposed that the CESS is not applied to this project

Application of the CESS

The IPA forecasts that the infrastructure labour force in NSW will be required to grow by 56 per cent by 2024 to deliver the pipeline of infrastructure projects across NSW and Australia.

Figure 3: Forecast Labour Demand of the Australian infrastructure pipeline over the next five years



Source: Infrastructure Partnerships Australia

Source: Infrastructure Partnerships Australia (IPA), Infrastructure Election Monitor NSW – Red Book, Figure 3

labour costs are increasing due to the surge in construction activities

Commonwealth and State Government infrastructure programs - hospitals, roads, bridges and water infrastructure projects

- large transmission projects on AEMO's ODP, NSW Roadmap and state government agendas:
  - > Project EnergyConnect, VNI West, Marinus Link, Sydney Ring
  - > NSW Government's REZs such as Central-West Orana REZ, New England REZ or Hunter-Central Coast REZ, and
  - > CopperString which is which is supported by the Queensland Government and is being built by Powerlink in north Queensland