

Powerlink 2027-32
Revenue Proposal

Revenue Proposal Reference Group Meeting

October 2025



Powerlink acknowledges the Traditional Owners and their custodianship of the lands and waters of Queensland and in particular the lands on which we operate.

We pay our respect to their Ancestors, Elders and knowledge holders and recognise their deep history and ongoing connection to Country.









Meeting Purpose

- Provide a detailed overview of technology investments and drivers of expenditure in the 2027-32 regulatory period
- Summarise application of incentive schemes in the 2027-32 Revenue Proposal
- Agree on priority issues for engagement prior to Revenue Proposal lodgement

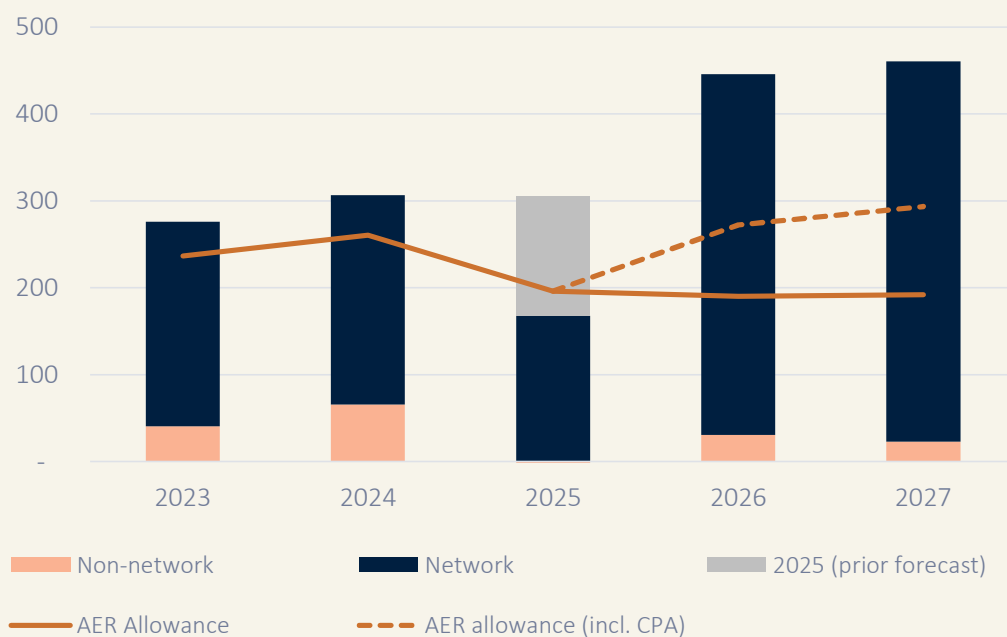
Reminder: this meeting will be recorded and transcribed to aid record keeping

Agenda

Item	Duration	
Treatment of costs in 2022-27 regulatory period	15 minutes	
NGNO program progress update	30 minutes	
Operational Technology (OT)	30 minutes	
Future Grid Operations Technology (FGOT)	30 minutes	
BREAK (15 minutes)		
Incentive schemes	15 minutes	
RPRG feedback on draft Revenue Proposal and priority engagement themes	60 minutes	



Treatment of costs in 2022-27 regulatory period



In response to changed environment, reallocated costs consistent with the Cost Allocation Methodology

- Allocation of costs approx. \$68 million
- AEMS replacement approx. \$68 million

Represented in simplified form in draft Revenue Proposal

Working through the detail to ensure no unintended consequences for customers

We will provide more detail ahead of next RPRG meeting.

NGNO - OT - FGOT interaction

Next Generation Network Operations (NGNO)

- Replace the old Energy Management System (EMS) and related systems with a modern platform
- Provides the same core functions using updated technology
- Establishes a platform for future capabilities

Operational Technology (OT)

- Ongoing investment to keep NGNO systems current and reliable
- Reinvestment in existing assets at their end-of-life to maintain existing levels of service

Future Grid Operations Technology (FGOT)

- Invest in new tools and capabilities to improve how we run the network
- Spending is based on the benefits these improvements deliver.

Introduction



Purpose

In this presentation, we aim to:

- Provide a progress update on the Next Generation Network Operations (NGNO) program and replacement of our Advanced Energy Management System (AEMS)



Presenter

Mick Jones – Portfolio Director NGNO



Past
Engagement

In September 2024 we presented to the Customer Panel, providing an update on investment need and progress of NGNO.

NGNO need and scope

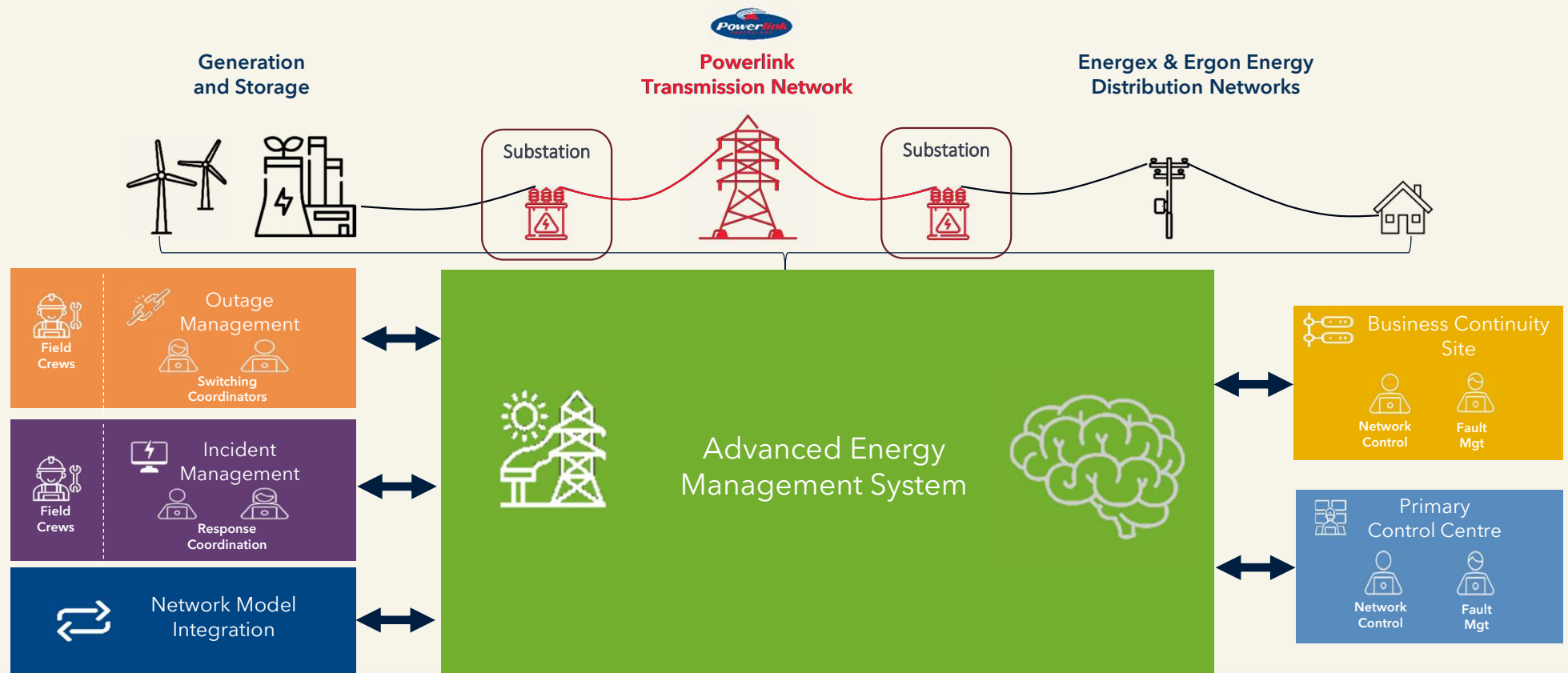
Why investment is needed

- Current Energy Management System (EMS) is 20+ years old and no longer supported by the vendor
- Growing risk to Powerlink's ability to meet obligations as a TNSP

Scope of investment

- Replace EMS and related systems with a modern, flexible, open architecture
- Maintain core operational functions while enabling future enhancements
- Upgrade supporting infrastructure for greater resilience, reflecting:
 - Stronger cyber security requirements for critical infrastructure
 - Lessons from COVID-19 on business continuity and remote operations.

Key Network Systems Investments



Key Network Systems Investments



Primary
Control Centre



Advanced Energy
Management System



Outage
Management System



Incident
Management System

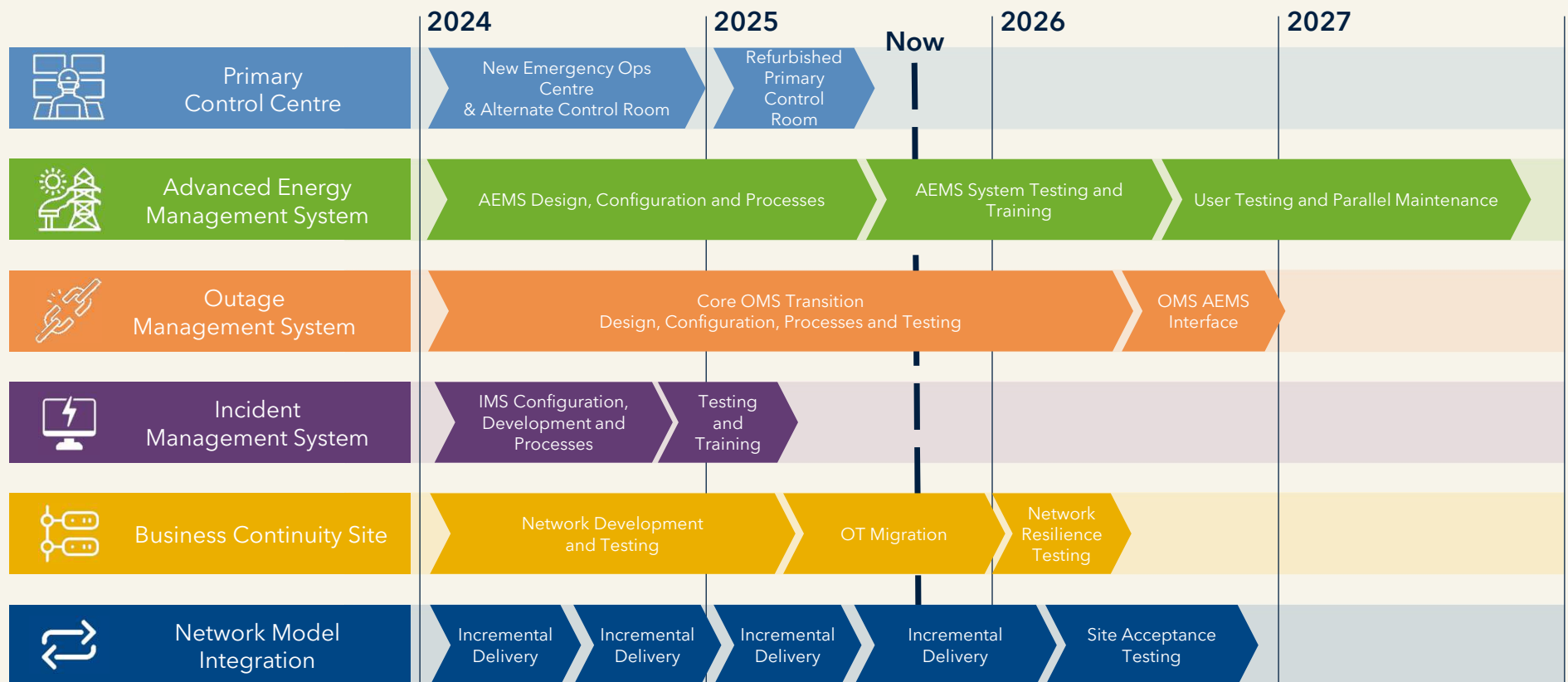


Business Continuity Site



Network Model
Integration

Key Network Systems Investments



Introduction



Purpose

In this presentation, we aim to:

- Summarise the scope of OT and asset categories relevant to the investment plan
- Provide an overview of our draft OT investment plan for the coming regulatory period (2027-32)



Presenter

Mike Green – General Manager Energy and Digital Management



Past
Engagement

At our June RPRG meeting we presented the IT investment plan for 2027-32

Scope of OT within Powerlink

Cyber Security

IT

- Focus: manage data and flow of information for a range of business functions
- Eg. Email, Payroll, Data Warehouse

OT

- Focus: Controlling physical processes and assets
- Eg. Control Systems, SCADA, Energy Management System

Overview of Powerlink OT Asset Categories

Software



Cyber Security



Network Operations Support



Data Centre Support



Data Network



Servers




Data Storage



OT Investment Plan

\$million, real 2026/27

 Software	Control Systems, Data Historian, Configuration Management, Operating Systems, Databases	39.7
 Cyber Security	OT Security Infrastructure, Security Software, Security Services, ISMP (ADESCSF SP2+)	28.0
 Network Operations Support	Wallboards, Dashboards, Operator Workstations, Operational Telephony	1.8
 Data Centre Support	Uninterruptable Power Supplies, Racks, Cabling, Power Distribution, Automated Power Cutover, SMS Alerting	0.4
 Data Network	Core Switches, Access Switches, Routers, Gateways, Load Balancers	8.6
 Servers	Physical and Virtual Servers, Clock Appliances, High-End Workstations	5.1
 Data Storage	Storage Area Networks (SANs), Backup System, Other Storage	6.6

2027-32 Regulatory Period Total 90.2

Questions?



Introduction



Purpose

In this presentation, we aim to:

- Summarise our investment plan for the coming regulatory period (2027-32)
- Provide context on the key drivers for these investments



Presenter

Emma Rogers – Executive General Manager Field and Asset Management



Past
Engagement

In September 2024 we presented to the Customer Panel providing a network update, highlighting some of the operational complexity, and introduced our Future Grid Operations Strategy.

The increasing complexity of the grid requires targeted investment to mitigate impacts on consumers and disruptive changes to grid operations

Future Grid Operations Technology (FGOT)

Improving operating capabilities and network utilisation

Forecasting & Data Support (\$25m)

Improving short and long-term forecasting to improve network resilience and operations planning

Decision Support & Situational Awareness (\$47m)

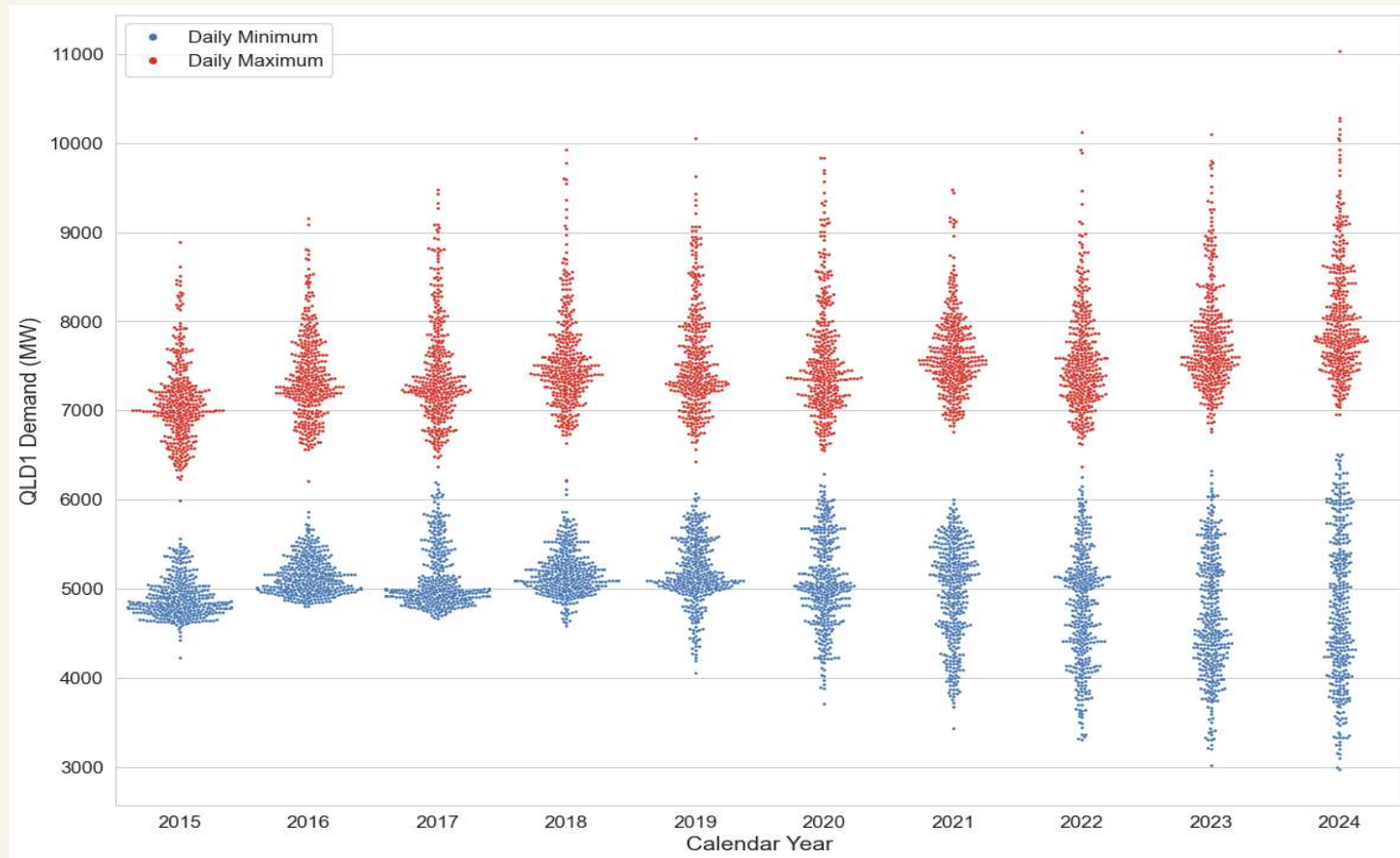
Developing tools to improve control room decision-making, awareness, and operational safety

Wide Area Monitoring Protection and Control (WAMPAC) (\$13m)

Upgrading systems with controls, wide-area visualisation tools, and integration of emerging grid technologies

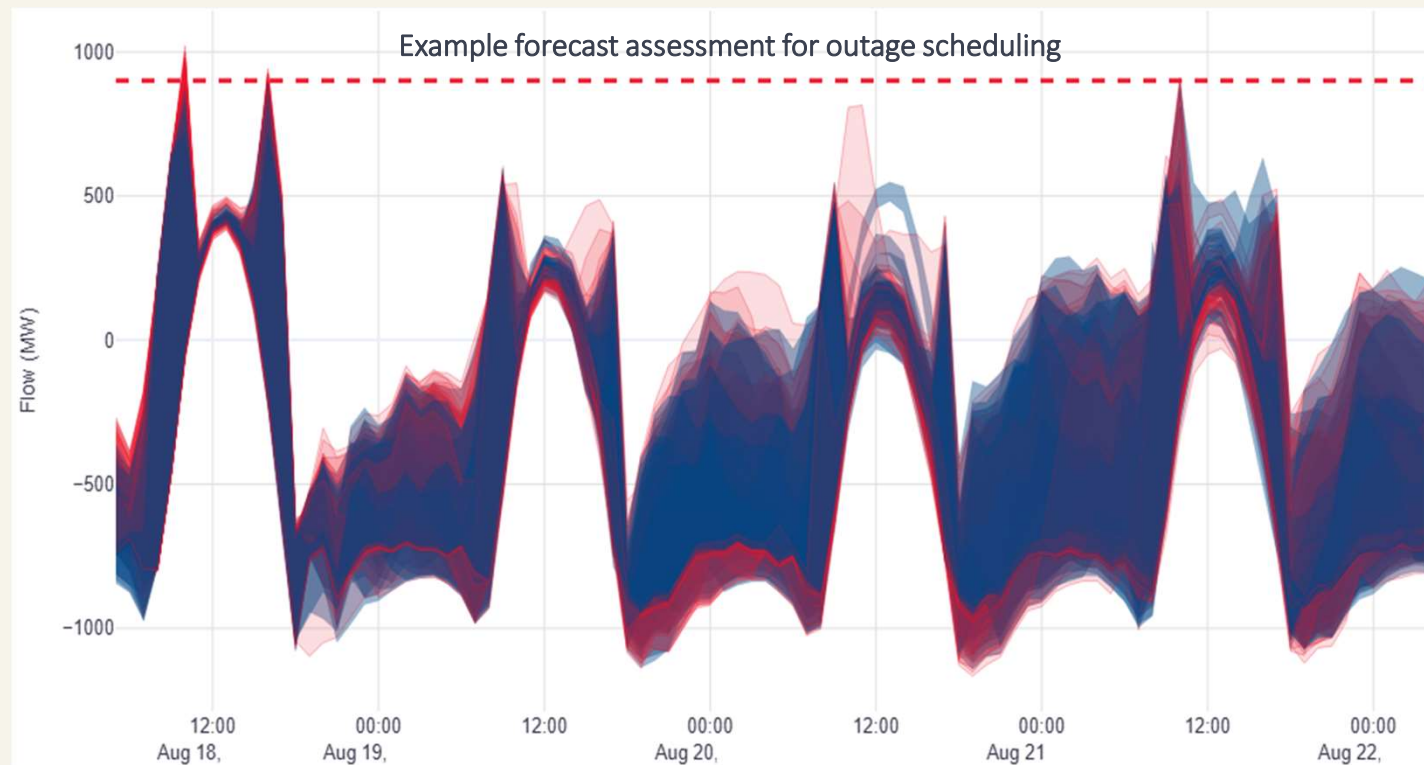
Total:
\$85m

Forecasting and Data Support – Key Drivers



Forecasting and Data Support - Proposal

The **Forecasting and Data Support** portfolio improves Powerlink's ability to anticipate and respond to short, medium, and long-term changes in demand, generation, and system conditions



Forecasting and Data Support - Proposal

Benefits for customers

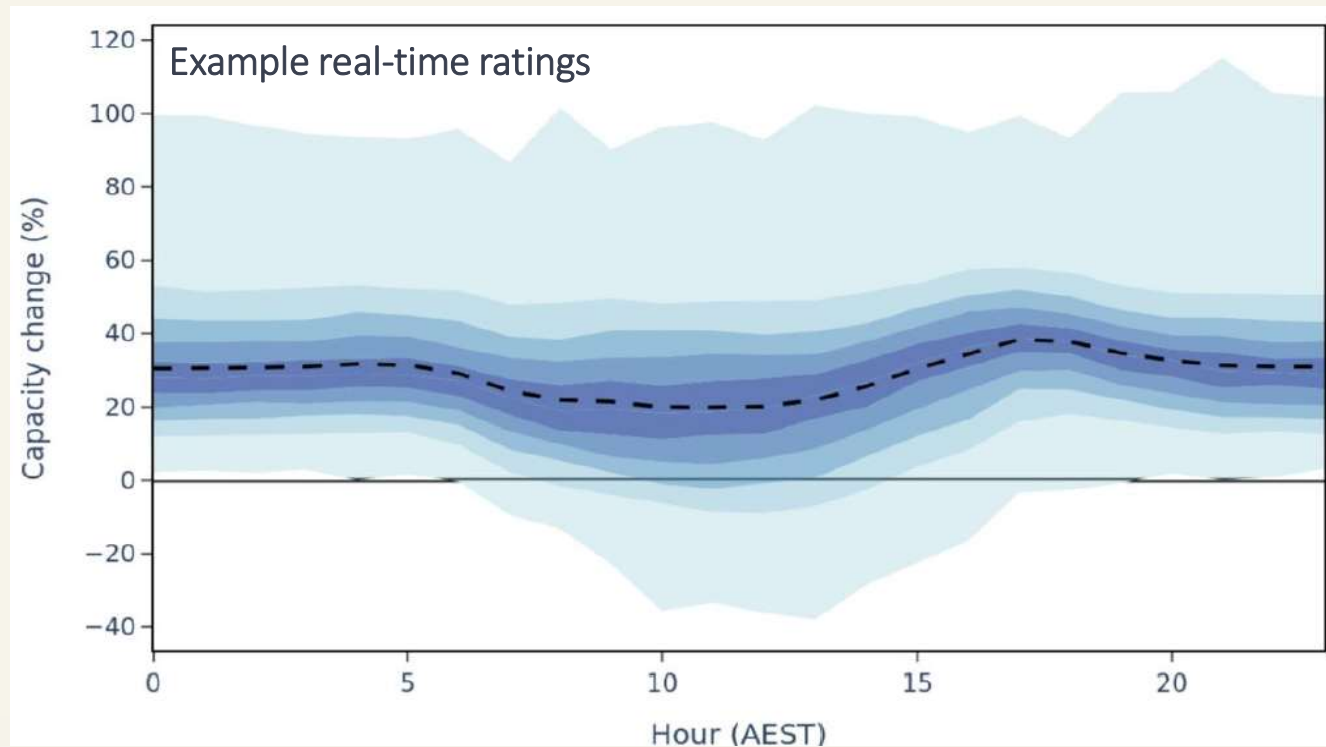
- ⊕ Improved outage certainty (current and future)
- ⊕ Reduced chance of outage rescheduling lowering cost to serve
- ⊕ Greater resilience to changing system dynamics reducing the probability of unplanned outages and load shedding

What investments are proposed (\$million)

Short-term Operational Forecasting Capability (Sub-regional)	7
Network Operational Advanced Analytics	12
Long-term Outage Visibility Tool	1
Real-time Network Risk Capability	5

Decision Support and Situational Awareness - Proposal

Improved **Decision Support and Situational Awareness** is vital to Powerlink's ability to make timely, risk-informed decisions through enhanced data integration, visualisation, and analytics.



Decision Support and Situational Awareness - Proposal

Benefits for customers

- ⊕ Improved network and asset utilisation enhances reliability and reduces electricity costs
- ⊕ Reduced cognitive load on controllers improves safety and reliability of electricity supply
- ⊕ More efficient management of switching sheets and permits, reducing restoration times

What investments are proposed (\$million)

Improved Decision and Information Support Tool	18.5
Operational Tool for Real-time Contract Management	2.5
Alarm Optimisation and Analytics	3
Mobile Switching Application	12
Substation Entry Mobile Application	2
Real-time Equipment Ratings	4
Residual Power System Security Capability uplift	5

Wide Area Monitoring Protection and Control - Key Drivers



Over the next 5 years we are forecast to install over a dozen WAMPAC schemes to maximise utilisation of the primary network



The more schemes in place, the greater the need for coordination to ensure system security



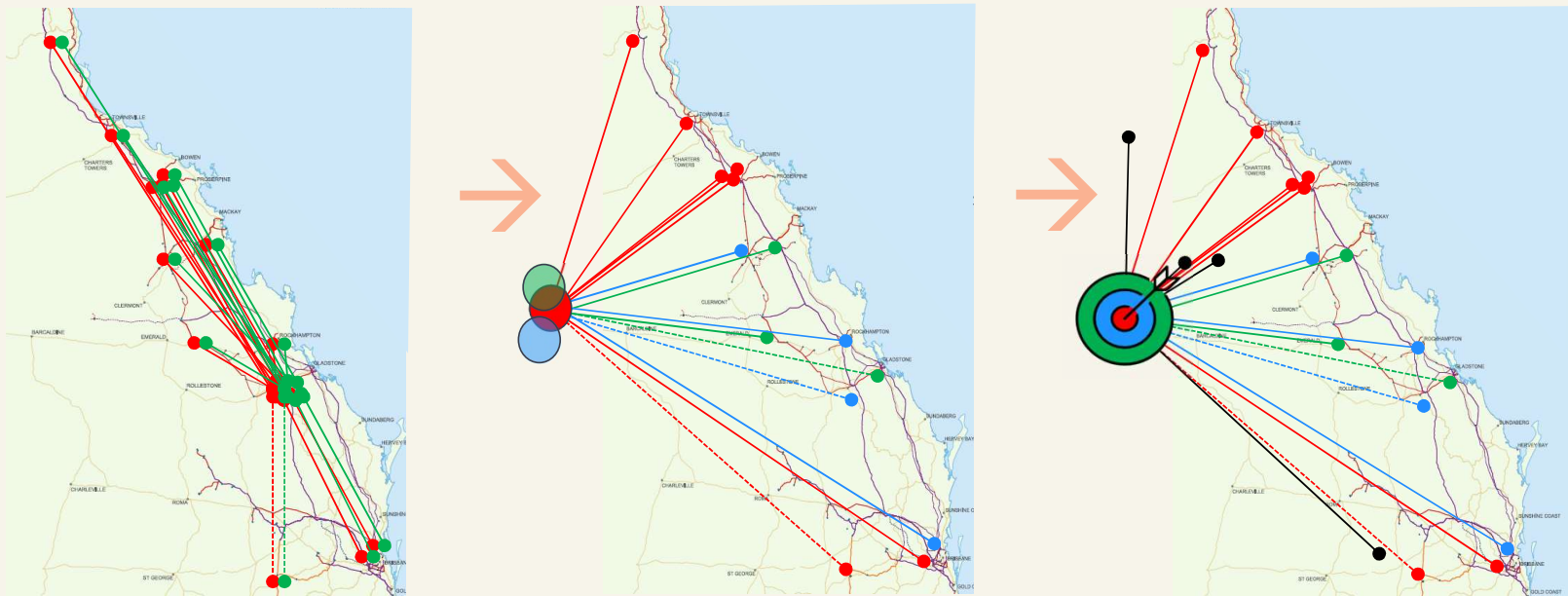
Powerlink has phasor measurement units (PMUs) installed across Queensland to facilitate WAMPAC schemes and is sending data to AEMO



Incorporating real-time PMU data into the control room allows high-resolution visibility of the network, enhances simulation tools and improves decision making

Wide Area Protection and Control - Proposal

The **WAMPAC** program of work addresses the need for a more dynamic and automated control environment, enabling Powerlink to respond in real time to system fluctuations and disturbances.



Wide Area Protection and Control - Proposal

Benefits for customers

- ⊕ Increased network utilisation and reduced generation curtailment, lowering electricity costs
- ⊕ System strength monitoring, ensures stable and secure power supply
- ⊕ Improved detection, faster response to power system issues and through real time analysis of events

What investments are proposed (\$million)

Head End Architecture Upgrade	6
Real-time Visualisation of Wide Area PMU Data and Network Oscillation	7

Questions?



Service Target Performance Incentive Scheme (STPIS)

An incentive-based regulatory mechanism designed to encourage transmission businesses to improve or maintain their service performance

We have applied the current version of STPIS (version 6) – in line with the AER's final decision in April 2025

- We proposed Service Component targets for 2027-32 consistent with the AER's historical data ranges
- We will provide information on any potential projects under the Network Capability Component annually in future Transmission Annual Planning Reports
- We will contribute to development of an alternative Market Incentive Component as part of the AER's working group.

Efficiency Benefits Sharing Scheme (EBSS)

An incentive-based regulatory mechanism that encourages Network Service Providers to continuously improve their efficiency in operating expenditure

We have applied the current version of the EBSS

- Net carry-over from the 2022-27 regulatory period \$223.6 million (negative)
- EBSS target for the 2027-32 regulatory period \$1,746.7 million.

Capital Expenditure Sharing Scheme (CESS)

An incentive-based regulatory mechanism to encourage network businesses to undertake efficient capital expenditure during a regulatory control period

We have applied the CESS in place at the time of our 2022-27 Revenue Proposal in calculating net carry-overs

- Net carry-over from the 2022-27 regulatory period \$121.6 million (negative)
- True up for last year of previous regulatory period \$4 million (negative)
- CESS target for the 2027-32 regulatory period \$2,781.7 million

We have proposed an alternative approach to the calculation of the net carryover amount that considers the circumstances during the current period

- This would reduce the net negative carry-over amount to \$37.9 million
- Noting RPRG feedback, we will provide additional information on the methodology applied.

Demand Management Innovation Allowance Mechanism (DMIAM)

An incentive-based regulatory mechanism that provides network businesses with funding for research and development in demand management projects that have the potential to reduce long-term network costs

We propose not to apply DMIAM for the 2027-32 regulatory period

- consistent with our commitment to continue driving efficiency through business as usual practices (consistent with approach taken for the 2022-27 regulatory period).



Preliminary RPRG feedback and discussion Priority engagement themes

Upcoming



Insurance
Cost pass throughs
Non-network capital
Deliverability of capital program



Priority engagement themes
Overview of Revenue Proposal
Evaluation criteria



Agenda to be confirmed
(rescheduling from January)



Agenda to be confirmed



Agenda to be confirmed



Agenda to be confirmed