POWERLINK AND THE NEM

ACHIEVING

- good performance against the majority of the regulator's network performance standards
- high levels of network availability by minimising the outages on our network
- managing work with a significant number of businesses that have an interest in connecting to our network
- a positive working relationship with the regulator during our revenue reset process.

Our distribution customers

As a Transmission Network Service Provider (TNSP) in the National Electricity Market (NEM), Powerlink delivers bulk electricity via our transmission network to Distribution Network Service Providers (DNSPs).

In Queensland, those DNSPs are Government Owned Corporations Energex and Ergon Energy. Energex is based in South East Queensland and distributes electricity to more than 1.3 million residential, industrial and commercial customers. Ergon Energy services about 680,000 customers throughout Queensland, including rural and remote communities.

Powerlink also supplies electricity to Essential Energy, a New South Wales Government Owned Corporation delivering network services to northern New South Wales.

Our planning role

Each year, Powerlink assesses the capability of the transmission network to meet forecast load growth. This annual process is collaborative – we work with equivalent bodies in other States, Queensland DNSPs and the Australian Energy Market Operator (AEMO) to determine the network's ability to transfer electricity within Queensland, and to and from other regions in the NEM.

We contribute to NEM planning activities undertaken by AEMO, including the development of the National Transmission Network Development Plan.

Revenue and electricity pricing

Powerlink's maximum allowed revenue for the provision of regulated (prescribed) transmission services is determined by the Australian Energy Regulator (AER) in accordance with the National Electricity Rules (NER).

In 2011/12, Powerlink's maximum allowed revenue was $828.5 million. Powerlink's maximum allowed revenue for 2012/13 will be $835 million, as specified in the AER's final revenue determination applicable to the five-year period from 2012/13 to 2016/17.

Powerlink is required to calculate Transmission Use of System (TUOS) charges for our network customers using those allowed revenues and in accordance with the methodology prescribed in the NER and our AER-approved pricing methodology. The AER has forecast that average transmission charges are expected to remain flat in nominal terms over the five-year regulatory period to 30 June 2017.

For a typical Queensland residential electricity consumer connected to the distribution network, the cost of the use of Powerlink's high voltage electricity grid represents about 10 per cent of the total delivered cost of electricity, therefore transmission charges have minimal impact on household electricity bills. Large customers (such as mines) directly connected to Powerlink's network may see transmission as a larger portion of the total delivered cost of electricity, reflective of their unique load and connection circumstances.

Services associated with the connection of individual loads (such as mines or liquefied natural gas developments) and electricity generators are provided on a non-regulated basis. These services are not within oversight of the AER's regulatory framework and are provided on a contractual basis through direct negotiation with the relevant customer.

Under a non-regulated agreement, all costs associated with acquiring, constructing and operating non-regulated customer lines and substations are paid for by the customer making the connection request via commercial charges over the life of the agreement. Under the NER, large customers connecting to the transmission network are also required to pay TUOS charges for the use they are making of the regulated transmission network.

Network performance in 2011

Powerlink has performed well against the majority of the 2011 network performance standards set by the AER. The service target performance incentive scheme comprises two components:

- the network service component that focuses on delivering network reliability
- the Market Impacts of Transmission Congestion (MITC) component, a more recently introduced scheme that focuses on outages that could potentially have an adverse impact on NEM participants.

As part of the revenue reset process, the AER sets calendar-year network performance targets for Powerlink for the duration of each five-year regulatory period. Powerlink's targets and performance for 2011 are as outlined in the table below.

AER Network Performance Standards

2011	AER target for Powerlink	Actual Powerlink performance	Did Powerlink meet the AER target?
Transmission circuit availability – critical elements	99.07%	98.51%*	✗
Transmission circuit availability – non-critical elements	98.40%	98.60%	✓
Transmission circuit availability – peak periods	98.16%	98.39%	✓
Loss of supply event frequency (Number of events > 0.2 system minutes**)	5	4***	✓
Loss of supply event frequency (Number of events > 1.0 system minutes**)	1	0***	✓
Average outage duration (minutes)	1,033	765	✓
Market impacts (dispatch intervals)****	1,570	37	✓

* Transmission circuit availability – critical elements was impacted by the number of planned outages required for refurbishment and replacement works on Powerlink's 275 kilovolt network. This program of planned outages was larger than historically experienced and larger than the program allowed for in the AER target.

** One system minute is a measure of energy not supplied during transmission disturbances. It is the amount of energy that would be transported during one minute at the system maximum demand.

*** The impact to the network resulting from weather events of Tropical Cyclone Yasi and the South East Queensland flood occurred during this reporting period. Due to their extreme nature these events are excluded from the performance results under AER guidelines.

**** A dispatch interval is the five-minute period at which AEMO recalculates the generation dispatch and pricing across the NEM.

Network availability

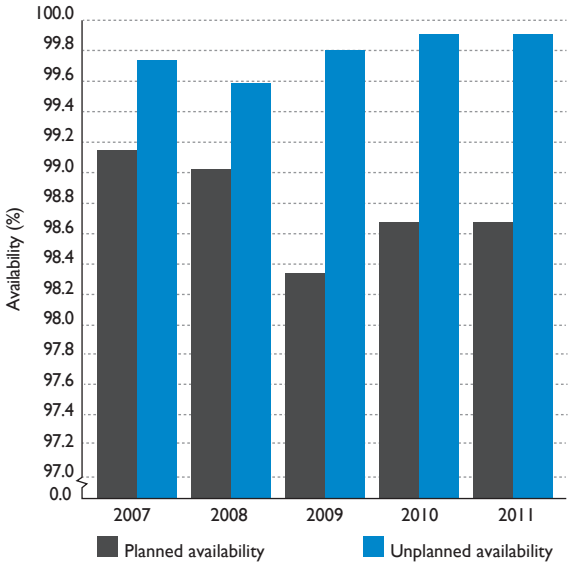
Powerlink's network availability is measured in terms of the duration of planned and unplanned network outages. Planned outages are put in place to enable maintenance and other works to safely take place on our network. Typically, these do not impact on electricity supply to our customers and we implement a number of strategies to minimise the number and duration of planned outages. Unplanned, or unexpected, outages can occur for a number of reasons, such as extreme weather-related incidents like cyclones or floods or occasional faults on the transmission network.

The AER does not set performance targets specifically for planned and unplanned outages on the transmission network.

In 2011, network availability less unplanned outages, was 99.91 per cent indicating a very high level of plant and equipment in service. During the past five years unplanned availability has consistently reached more than 99.5 per cent, with the past three years delivering very high levels of unplanned availability.

Network availability less planned outages was 98.68 per cent in 2011, which is in line with the average of the past five years.

Planned and unplanned network availability



CASESTUDY

WORKING COOPERATIVELY ON THE REVENUE RESET

The final revenue determination for Powerlink was delivered by the AER on 30 April 2012 after almost a year of engagement between the two entities. For Powerlink, this two-year process was both rigorous and transparent, with documents published on the AER website and comment sought from interested parties.

Stewart Bell, Manager Revenue Reset, said given the regulatory process sets more than 90 per cent of Powerlink's revenue, the resulting determination is significant.

"We engaged with the AER as closely as possible throughout the process, which included a workshop and site visits to help familiarise the AER and their consultants with Powerlink.

"We followed the prescribed schedule of activities, lodging Powerlink's initial proposal in May 2011 and a revised proposal in January 2012 following the release of the AER draft determination.

"Our proposals responsibly took into account Powerlink's operating and capital expenditure requirements which are driven by ongoing load growth and the replacement of ageing assets.

"Our focus was on providing high quality data and documentation to meet the requirements of the NER and support the AER in their decision making. The team relied on the people within our business to provide the information required throughout the process to develop compliant proposals and answer questions from the AER and their consultants.

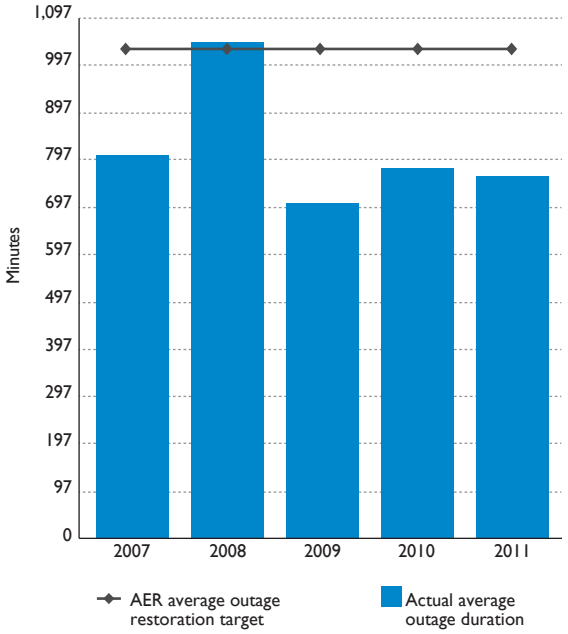
"Informing and liaising with other stakeholders is another key part of the process, and we engaged proactively with the Energy Users Association of Australia (EUAA) and other interested customers to keep them informed of Powerlink's proposals and the various stages of the reset process," Stewart said.

Stewart said Powerlink's collaborative and collegiate approach to responding to information requests throughout the process was acknowledged and complimented by both the AER and their consultants.

Network restoration

When an unplanned outage occurs on our network, we measure how quickly we get the network back into service. Our performance in 2011 was strong, well inside the AER target, showing the strategies we have implemented are contributing to improved performance.

Outage restoration times



Market impacts

We consider how to minimise impacts on the NEM when planning and scheduling outages on our network. We also consider alternative work methods, such as live work, to allow maintenance to be completed without the need for network outages. Our performance in 2011 was better than the target set by the AER, which means we are delivering better outcomes for electricity customers and the NEM.

New network connections

During 2011/12, we worked closely with a number of project proponents with an interest in connecting to Powerlink's transmission network. Interest has continued to be strong from proponents of coal, coal seam methane and liquefied natural gas developments located in the Surat, Bowen and Galilee Basins. We have also worked on connection arrangements with proponents of renewable generation proposals including various wind farm proposals in North Queensland.

Customer connection works completed and under construction in 2011/12, and those committed as at 30 June 2012 are detailed on page 30 of this report.

Regulatory issues

Powerlink is committed to furthering the NEM objective, which is to promote an efficient, reliable and safe electricity supply for the long-term interests of customers. Consistent with this commitment, we take an active role in initiatives to define and guide the future development of the NEM.

Powerlink is a participating member of Grid Australia, the organisation representing the owners of Australia's electricity transmission networks in the NEM, plus Western Australia's transmission grid owners. Grid Australia identifies issues of interest to transmission network owners and advocates for practical solutions that are in their common interest and which further the NEM objective. Much of Powerlink's engagement in issues related to NEM development is therefore directed through Grid Australia.

In 2011/12, Powerlink participated, both directly and through Grid Australia, in a number of processes affecting the NEM and network service providers:

- The AEMC Transmission Frameworks Review, relating to the arrangements for the provision and use of electricity transmission services in the NEM, with a view to ensuring that the incentives for generation and network investment and operating decisions are effectively aligned to deliver overall efficient outcomes.
- The AEMC's consideration of proposals to change the NER framework for revenue regulation.
- The Productivity Commission review of benchmarking and interconnection of networks in the NEM.
- The proposed application to energy network businesses of the *Energy Efficiency Opportunities Act 2006* (Commonwealth).

Powerlink is also a member of the Energy Networks Association (ENA), the national body representing gas and electricity transmission and distribution network businesses in Australia.

LOOKINGFORWARD

In 2012/13 and beyond, we will:

- report on Powerlink's performance against the AER network performance targets on an annual basis
- advise and provide connection services for proponents of new development projects in Queensland with an interest in connecting to the transmission network
- continue to actively participate in regulatory processes affecting the NEM.