



POWERLINK QUEENSLAND
ANNUAL REPORT AND
FINANCIAL STATEMENTS 2011/12



This Annual Report is presented to Powerlink's two shareholding Ministers, the Honourable Tim Nicholls MP, Treasurer and Minister for Trade, and the Honourable Mark McArdle MP, Minister for Energy and Water Supply.

The report forms part of Powerlink's corporate governance processes and provides information about our operations, financial, environmental and social performance for the 2011/12 year. The report is also intended to give our stakeholders including community members, customers, suppliers, as well as those in the energy, commercial, and government sectors, an insight into our operations and our plans for the future.

This report has been prepared in accordance with the provisions of the *Government Owned Corporations Act 1993* (incorporating aspects of the *Financial Accountability Act 2009*) and *The Corporations Act 2001*, and is presented to the Legislative Assembly of Queensland.

Powerlink's Financial Report for 2011/12 is contained in this report.

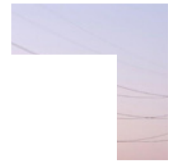
Copies of this and previous Powerlink Annual Reports are accessible online at www.powerlink.com.au and further copies can be obtained from:

Manager Corporate Communications
Powerlink Queensland
PO Box 1193 Virginia
Queensland Australia 4014
Phone +61 7 3860 2111

This document has been printed using environmentally-responsible paper manufactured from 100% recycled paper waste in a process chlorine free environment.

CONTENTS

Corporate Profile	2
Safety	11
Powerlink and the NEM	15
Network Strategy and Operations	19
Network Development	25
People	33
Environment	38
Community	43
Corporate Governance	48
Statistical Summary	60
Index	62
Glossary	64
Terms of Measurement	65
Financial Statements	67



POWERLINK QUEENSLAND



Vision

To be the leading transmission network service provider in Australia, and one of the best in the world.

Mission

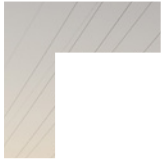
To deliver transmission network services and related services, at world class levels of safety, reliability and cost effectiveness.

Stakeholder Commitments

- Reasonable returns for the owners
- Value for money reliable services to our customers
- The well-being of our employees
- Being a good corporate citizen
- Fair, commercial and courteous dealings with our suppliers.

Values

- Safe
- Respectful
- Proactive
- Ethical
- Cooperative.



CORPORATE PROFILE



Our business profile

Powerlink's business is the reliable and cost efficient provision of electricity transmission services. Powerlink owns, operates, develops and maintains Queensland's high voltage electricity network, which transports electricity in bulk from power generators to the regional distribution networks and a few large industrial customers.

Our place in the National Electricity Market

Powerlink is a Transmission Network Service Provider (TNSP) in the National Electricity Market (NEM). We operate and develop our network in accordance with the National Electricity Rules (NER).

We provide NEM participants with secure, open and non-discriminatory access to our network for the transport of electricity. Regardless of the fuel source used by generators – for example wind, hydro, solar, gas or coal – the high voltage network is needed to securely transport bulk electricity.

We also have an operating agreement with the Australian Energy Market Operator (AEMO) to deliver services that help to securely operate the Queensland power system.

The Queensland Government has appointed Powerlink to undertake the tasks of the Responsible Officer for Queensland, Jurisdictional System Security Coordinator in Queensland, and Jurisdictional Planning Body for electricity transmission in Queensland.

We assess the capability of our transmission network to meet forecast electricity load growth while also meeting mandated reliability standards for electricity transmission.

Where we identify emerging limitations in our network we undertake a transparent process to identify the solution which satisfies the reliability standards at the lowest long-run cost to customers. This process is a requirement of the Australian Energy Regulator's (AER) Regulatory Investment Test for Transmission (RIT-T).

Our network

Our \$6 billion high voltage transmission network comprises 118 substations and 13,930 circuit kilometres of transmission lines.

We take pride in the performance of our network, which is measured against the performance standards set by the AER. Our commitment to delivering operational excellence across our business enables Powerlink to continue to provide a reliable and cost effective transmission network.

Our services

Powerlink does not buy or sell electricity. We transport it between power generators, the distribution networks and a few large industrial customers (such as aluminium smelters). We efficiently transport about 50,000 gigawatt hours of energy per year throughout Queensland.

Powerlink also transports electricity to New South Wales via the Queensland/New South Wales Interconnector (QNI) transmission line.

Electricity distributors Energex, Ergon Energy and Essential Energy take the high voltage electricity from Powerlink's substations and distribute it to more than two million residential and commercial customers throughout Queensland and parts of northern New South Wales.

As well as maintaining our existing network and building new transmission lines and substations to meet electricity demand growth and replace ageing assets, Powerlink also builds new transmission infrastructure for major industrial customers (such as a power generator or mine) seeking connection to its electricity network.

When Powerlink constructs a new line or substation as a 'non-regulated' connection (for example for a mine or liquefied natural gas development), the costs of acquiring, constructing and operating the transmission line and/or substation are paid for by the company making the connection request.

A smaller part of our business involves providing commercial services in the fields of telecommunications, technical services and oil testing.

Our people

We employ around 1,000 people in a wide range of professional, technical, trade, specialist and administrative roles.

It is our shared commitment to Powerlink's values and focus on safety, technical and process innovation, efficiency and stakeholder commitments that secures Powerlink's position as a leader in our field.

Powerlink provides our people with rewarding work opportunities and access to a range of development and career progression opportunities.

ACHIEVING

- Introduced new strategies to strengthen the safety culture at all Powerlink work sites.
- Delivered high level of network reliability and availability; better than the majority of targets set by our regulator.
- Benchmarked as a top quartile performer in terms of cost efficiency and network reliability among international transmission businesses participating in International Transmission Operations and Maintenance Study (ITOMS) 2011.
- Engaged productively with our regulator throughout the process to determine our revenue for the five-year period to 30 June 2017.
- Invested \$752.9 million in capital works to replace and extend the life of ageing assets to maintain reliability of electricity supply and meet electricity demand.
- Invested \$94.3 million in maintaining our network with emphasis on efficiencies in work programs and techniques to minimise network outages.
- Connected two major electricity customers to our network through user-pays agreements.
- Engaged with landowners and stakeholders about our planned new transmission projects.
- Supported better on-ground environmental decision making by improving our environmental work plans.

Our community and environment commitment

We are committed to responsibly managing how we engage with communities and the environment as we operate and develop our network to meet Queensland's electricity demand. Our aim is to consistently establish and maintain long-term, positive relationships with landowners and other stakeholders in the areas near our infrastructure.

We integrate environmental management practices into the way we do our work and our talented people are always seeking out innovative solutions to ensure we continue to strengthen our environmental performance.

Our corporate structure

Powerlink is a Government Owned Corporation (GOC) with two shareholding Ministers. We are a regulated business with the majority of our revenue determined by an independent national economic regulator, the AER. Powerlink also owns a 40 per cent share of the South Australian electricity transmission network ElectraNet.

Powerlink's activities and operations are undertaken in compliance with the *Electricity Act 1994 (Queensland)*, the NER and other relevant statutory requirements.

Electricity supply costs

We are working hard to ensure Powerlink's transmission network delivers the right balance between reliability of supply and cost effectiveness for Queensland electricity consumers. 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.

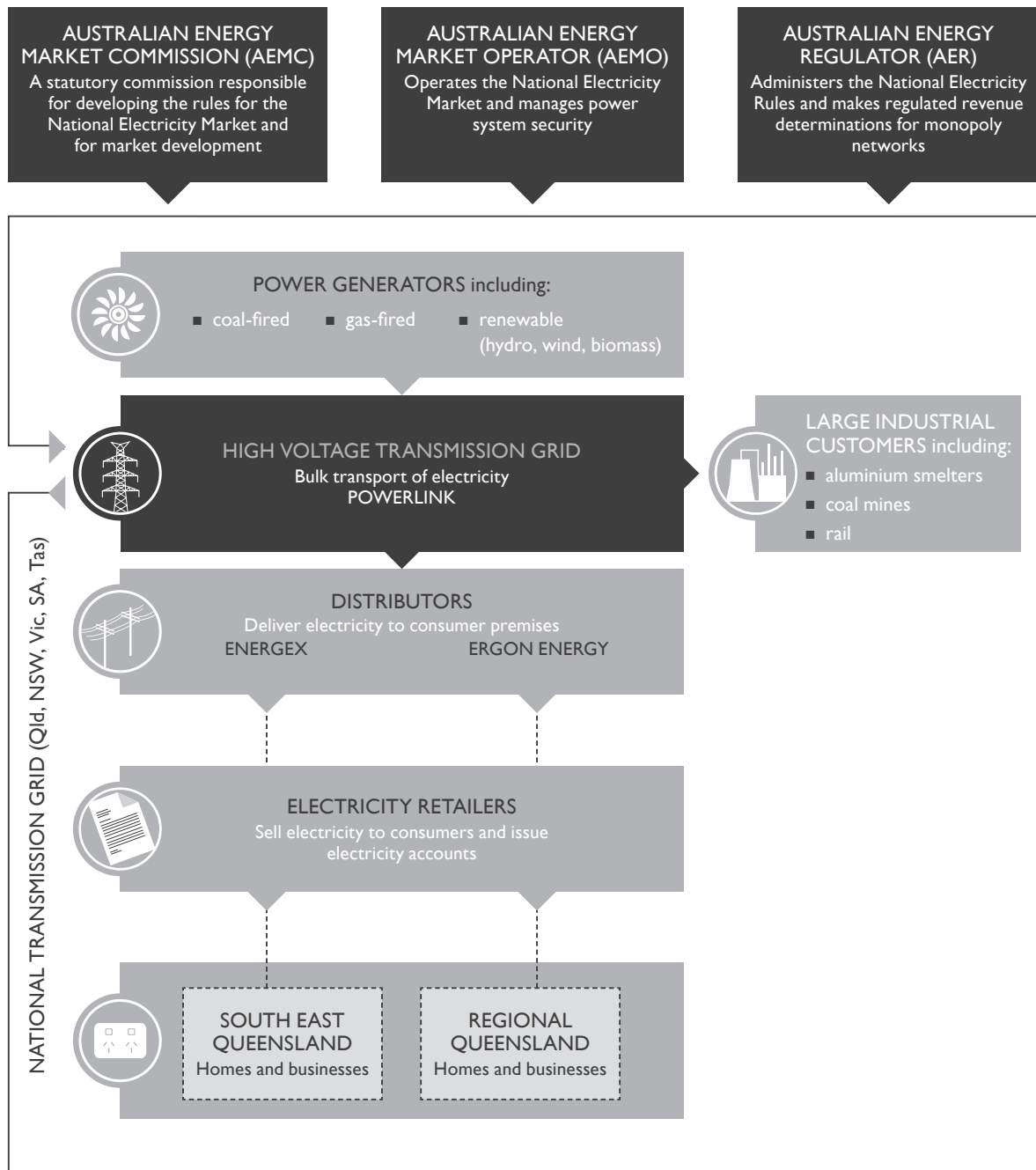
Information about pricing for transmission services can be found on page 16 of this report.

Queensland electricity transmission network



Queensland's power supply industry

Our high voltage transmission network is just one link in the chain supplying electricity to Queenslanders. This diagram illustrates Powerlink's role within the supply chain.



FINANCIAL OVERVIEW

Powerlink business outlook

Powerlink delivered strong financial performance in 2011/12, exceeding its Statement of Corporate Intent (SCI) financial targets. Financial year 2011/12 was the final year of the Australian Energy Regulator's (AER) five-year regulatory determination.

Powerlink's revenue determination for the next regulatory period, effective from 1 July 2012, was delivered by the AER on 30 April 2012. With regulated network revenue representing approximately 90 per cent of Powerlink's overall revenues, this determination will provide the operating and capital expenditure framework for managing the business over the next five years.

The environment Powerlink operates in has changed considerably. Previously Queensland has had high growth in demand for electricity and, associated with this, a growth in infrastructure requirements. The external environment has now changed to be characterised by increased economic uncertainty, and slower growth in demand for electricity. As a Government Owned Corporation, Powerlink aims to strike the right balance between cost and reliability of electricity supply. This approach is consistent with the State Government's approach on debt reduction and reducing cost of living pressures, including electricity prices, while still ensuring an effective and reliable provision of electricity transmission services to Queensland.

During 2011/12 Powerlink started targeting business efficiency improvements through our three years ahead business strategy which was released in March. In particular the strategy includes a productivity and performance focus – one of five key strategic themes. In developing this refocused strategy, Powerlink considered a range of major external drivers relevant to the way it delivers its services. These included concern with rising electricity prices, cost efficiency and meeting stakeholder expectations in relation to value for money for these services.

Alignment of Powerlink operations with shareholder expectations has been achieved through the following:

- Preparation of a new corporate plan focused on meeting Government expectations for efficiencies;
- Review of the management and operational structure of the organisation to drive efficiencies and align resources to the efficient delivery of the transmission services throughout the business;
- Reducing discretionary spending across the organisation where possible, including in the areas of travel, catering, use of consultants and sponsorships;
- Refining the approach to electricity demand forecasting to ensure future demand driven capital expenditure requirements are delivered neither ahead of nor later than the time required;
- Using the most up to date regional and local information prior to committing to any major network development;
- Review of recruitment processes;
- Streamlined accountabilities across the organisation; and
- Ongoing review of business and support activities.

We remain focused on meeting our obligations to deliver a secure and reliable supply of electricity at the lowest long-run cost to consumers.

Powerlink business performance

With a continued strong focus on cost management, Powerlink achieved its key cost target by maintaining controllable operating expenditure at 1.8 per cent of replacement asset value. This and stronger returns from Powerlink's non-regulated business delivered an Earnings Before Interest and Tax (EBIT) result of \$505.8 million. The higher regulated revenue cap due to higher Consumer Price Index (CPI) in accordance with the AER's revenue determination, also contributed to this improved result.

Borrowings

A key driver for Powerlink is to ensure sufficient funds are available to meet all operating and capital expenditure requirements while maintaining an efficient overall cost of funds.

In conjunction with Queensland Treasury Corporation, the composition and duration of Powerlink's debt portfolio has been proactively managed for the market conditions and the funding requirements of the capital works program for the year, with interest cover (times) ratio improving to 3.2 compared to 3.0 in the previous year.

New borrowings for the 2011/12 totalled \$282.7 million with total debt now standing at \$3.85 billion. With a debt to fixed assets ratio of 57.7 per cent (2010/11: 58.8 per cent), this is consistent with the benchmark gearing for regulated electricity businesses in Australia of 60 per cent.

Powerlink continued to maintain an investment grade credit rating on a standalone basis, with all new loan funding obtained through the Queensland Treasury Corporation.

Dividends

Each year the Powerlink Board considers a number of relevant factors such as future capital requirements of the company and the level of returns expected by shareholders to determine an appropriate level of dividends to be paid.

The level of dividends approved by the Board for the 2011/12 year totalled \$146.7 million being 80 per cent of the profit and tax for the consolidated entity.

Capital investment

During the 2011/12 year, Powerlink invested \$752.9 million in capital works projects. This is responding to the emerging growth in the natural resources sector and associated industries with non-regulated investments, as well as replacing aging assets and meeting reliability of supply requirements. Total investment in fixed assets now totals approximately \$6.7 billion.

Summary of Statement of Corporate Intent 2011/12

Our SCI for 2011/12, as agreed with our shareholding Ministers, details Powerlink's performance targets, priorities and strategies. The following table summarises the key financial and non-financial indicators, as incorporated in Powerlink's SCI.

Summary of Statement of Corporate Intent 2011/12

Objectives	Performance measures/targets	Performance outcomes
Meet financial targets		
Achieve specified financial performance targets	Earnings Before Interest and Tax (EBIT) \$478.7 million	EBIT \$505.8 million
	Net Profit After Tax (NPAT) \$160.4 million	NPAT \$203.8 million
	Return on Assets 7.0%	Return on Assets 7.4%
	Return on Equity 7.0%	Return on Equity 9.0%
	Debt/Fixed Assets Ratio 59.6%	Debt/Fixed Assets Ratio 57.7%
	Debt/Debt and Equity Ratio 63.4%	Debt/Debt and Equity Ratio 62.4%
	Interest cover ratio Earnings Before Interest and Tax, Depreciation and Amortisation (EBITDA) 2.8 times	EBITDA 3.1 times
Deliver shareholder value		
To deliver dividends to shareholders, while maintaining at least an 'investment grade' business rating	Dividend payout ratio of 80%	Dividend payout ratio of 80%
	Provide a dividend to shareholders of \$123.4 million	Provided a dividend to shareholders of \$146.7 million
Deliver our capital works program		
Develop the Queensland transmission grid to meet customer electricity demands, and safety and reliability standards	Deliver the required capital works program	Four regulated (prescribed) projects were completed during 2011/12 and 10 are under construction. Two non-regulated customer connection projects were completed and five are under construction. More information can be found on pages 27 to 31 of this report.
	Total capital forecast works expenditure to be \$859 million	Total capital works expenditure was \$752.9 million
Meet non-financial targets		
Achieve safety performance targets	Lost Time Calculation (LTC) 3.0	LTC 1.8
Achieve cost efficiency performance targets	Total network maintenance cost/replacement asset value 1.0%	Total network maintenance cost/replacement asset value 1.0%
	Total controllable operating cost/replacement asset value 1.8%	Total controllable operating cost/replacement asset value 1.8%
To be compliant with relevant environmental legislation. Any reportable environmental instances that occur will be reported	To be materially compliant with relevant legislation	Overall Powerlink's environmental performance continues to be above target, with scheduled audits undertaken. Two environmental incidents were reported in 2011/12, more information about this can be found on page 39 of this report.
Achieve network performance targets (calendar year 2011)	Circuit availability	
	Critical circuits >99.07%	Critical circuits 98.51%
	Non-critical circuits >98.40%	Non-critical circuits 98.60%
	Peak periods >98.16%	Peak periods 98.39%
	System reliability	
	Not more than 5 events in excess of 0.2 system minutes	4 events in excess of 0.2 system minutes
	Not more than 1 event in excess of 1.0 system minutes	0 events in excess of 1.0 system minutes
	Average outage	
	Duration of 1,033 minutes	Duration of 765 minutes



CHAIRMAN'S REVIEW

I am pleased to have joined Powerlink during 2011/12 – a year in which the business has renewed its strategies and focus on delivering cost effective transmission services for Queensland. Powerlink continued to deliver improved financial outcomes with 2011/12 Earnings Before Interest and Tax (EBIT) of \$505.8 million. This strong financial performance has been achieved through continued growth in Powerlink's non-regulated business and Powerlink's focus on cost efficiency and effectiveness in operational aspects of the business, and required capital investment in the transmission network.

Delivering cost efficient transmission services

Powerlink has focused on a number of strategies that will contribute to the current and future cost efficient and reliable operation of the high voltage transmission network, including striking the right balance between reliability of supply and cost. Specific actions taken include safely adding to the capabilities of our live line and live substation work teams, which has expanded the scope of works that can be undertaken without outages on our network. We also implemented new substation design standards which will realise efficiencies in construction and maintenance.

Looking forward, we are embarking on the first year of Powerlink's 2012/13 to 2016/17 regulatory period, and aim to continue to meet the network performance targets set by the Australian Energy Regulator (AER).

Responding to long-term electricity demand

While peak electricity demand was lower in 2012 than the previous year, economic indicators predict a return to sustained long-term growth in the Queensland economy. Powerlink's planning process identifies this return to economic growth as one factor that will sustain an upward trend in electricity demand over the next 10 years. We will ensure Powerlink's network cost effectively meets sustained electricity demand and will continuously review our plans to ensure investment occurs as required, at the lowest long-run cost to customers.

A significant proportion of the electricity demand has been, and will continue to be created by the strong investment in the resources sector, particularly coal and liquefied natural gas developments in South West and Central Queensland. The forecast electricity demand from the resources sector is driving expansion of Powerlink's network in South West Queensland, including construction of a number of customer-funded projects that will connect the customers' new resource developments to the transmission network.

Working together safely toward business goals

Above all else, Powerlink aims to provide a safe and productive workplace for its employees. The Board values initiatives undertaken, such as facilitating safety forums, to improve safety performance of all Powerlink employees and contractors.

Our existing employee development and engagement strategies are strategically targeted to provide Powerlink with the capabilities to meet future business needs. The external environment and our internal focus on cost efficiencies will require strategies to ensure our staff remain informed and aware of the important role they have in contributing to the cost effective operation of our business.

Finally, I wish to thank Powerlink's management and employees for their constructive work in 2011/12. I look forward to working with the Powerlink team and my fellow Directors during the coming year to deliver cost effective and reliable high voltage electricity transmission services.

A handwritten signature in black ink, appearing to read 'Stephen Rochester'.

Stephen Rochester
Chairman of the Board



CHIEF EXECUTIVE'S REVIEW

At Powerlink we are focused on providing transmission services that strike an appropriate balance between reliability of electricity supply and cost to consumers.

Our strategy for the future

Our new business strategy launched in 2011/12 supports our position of balancing cost effectiveness and operational performance. The business strategy has a central theme of cost efficiency and provides a renewed focus on key areas of our business including safety, operational performance, financing, forecasting and stakeholder relationships. It has been embraced by Powerlink people.

Our strategies continue to build on our track record of delivering essential service infrastructure in a timely way to meet growing electricity demand, at the lowest long-run cost to consumers.

A new workplace agreement was agreed upon and approved during the year and will assist us to deliver the business strategy and our commitments to employees.

Strong operational performance

The way in which we go about cost effectively developing, operating and maintaining our network supports Queensland's economic growth.

We monitor our business operations in a number of ways, and I am pleased to report that in 2011/12 Powerlink's transmission network performed well against key operational measures. We met the majority of the 2011 targets set by our regulator, the Australian Energy Regulator (AER); these targets focus on the performance of our transmission network and impacts on National Electricity Market (NEM) participants. Powerlink also benchmarked in the top quartile in terms of cost efficiency and network reliability among transmission providers participating in the 2011 International Transmission Operations and Maintenance Study (ITOMS).

Determining our future revenue

Following a transparent process, the AER delivered its final revenue determination, which will guide Powerlink's regulated business operations over the five-year period to 30 June 2017.

Our revenue reset team engaged productively with the AER and their consultants over an intense year-long period, with preparation of Powerlink's proposal before that. The team was closely supported by many people within Powerlink who provided information, data and analysis.

The final revenue determination by the AER is expected to have minimal impact on the transmission component of a typical residential customer's electricity bill. For a typical Queensland residential electricity consumer, the cost of Powerlink's high voltage electricity grid represents about 10 per cent of the total delivered cost of electricity.

We're conscious of the cost of living pressure on the community, so maintaining a cost efficient transmission service is central to our business strategy.

Managing capital works

We manage a capital works program that includes network augmentations, replacements and life extension projects to deliver a cost effective, reliable transmission services. We aim to manage the program to cost effectively deliver projects within expected timeframes.

During the next regulatory period we move to a scenario where half of our capital works program will comprise replacement of assets that have reached the end of their economic life. Previously, the largest proportion of our capital works program has comprised construction of new network transmission lines and substations to meet forecast electricity demand.

This year, after a critical review of our approach, Powerlink applied a new method to developing electricity demand forecasts, including undertaking our own econometric modelling in addition to using comprehensive external economic advice. As a result, the need to augment our network has been reduced and there is a later requirement to establish a 500 kilovolt network into South East Queensland. The electricity demand forecasts, contained in our 2012 Annual Planning Report, indicate a trend of steadily increasing peak electricity demand in Queensland over the next 10 years.

Powerlink has also experienced a significant workload in advising and responding to enquiries from large industrial customers with an interest in connecting new resource developments to our network, and in planning

and delivering customer works. This year we completed two major customer connection projects, the costs of which were recovered from the customer through a direct negotiation with Powerlink, and a number of other customer works are under way. Our activities in delivering electricity supply to the resource sector support Queensland's economic development.

Working safely

Safety is essential at Powerlink. This year, our Lost Time Injury Frequency Rate (LTIFR) was 3.89. In line with our business strategy, we are refreshing and updating our approach to safety, ensuring it develops in parallel with the national work health and safety harmonisation legislation. A refreshed roadmap that continues to focus on and improve our safety performance over the next few years is under preparation.

We introduced safety behaviour measurements for our field workers, which have helped us to better understand and manage our safety culture. We also continue to build on our strategies that aim to contribute to improved safety performance by our contractors.

Productive engagement and processes

In developing, replacing and maintaining our network we engage in many ways with landowners, communities and other stakeholders throughout Queensland.

We strategically support programs that facilitate engagement with our stakeholders and deliver projects that benefit the communities and environment close to our current and future projects. I take this opportunity to thank our stakeholders and members of the community for their involvement in these programs, and for their productive engagement with Powerlink.

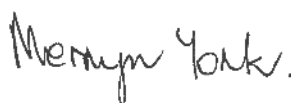
Environmental compliance remains critical to our work and our well-developed environmental audit processes ensure we act on improvement opportunities. During 2011/12, we introduced a new streamlined process for developing and managing Environmental Work Plans for our transmission easements and sites that facilitate better decision making by our people on the ground and continues to improve our environmental performance.

Working together into the future

Powerlink welcomes Stephen Rochester as Chairman and I look forward to working with him and the Directors to deliver Powerlink's business strategy. I also acknowledge David Harrison for his contribution while Chairman and Director in 2012.

I take this opportunity to acknowledge the strong leadership and lengthy service of Powerlink's founding Chairman, Else Shepherd, who completed her role with Powerlink in December 2011 after 17 years. On behalf of all Powerlink people, I extend our gratitude to Else for her support and guidance.

This Annual Report provides striking examples of the capabilities of our people and their balanced approach. I am confident the Powerlink business strategy will guide our performance in delivering cost efficient, reliable transmission services for Queensland. I am equally confident in the capability of our people to progress the strategy in the coming year.



Merryn York
Chief Executive



SAFETY



SAFETY

ACHIEVING

- measured field staff safety related behaviours and used the findings to inform reviews of processes, training and safety programs
- took action to ensure compliance with new health and safety legislation
- audited the corporate safety culture of our major construction contractors
- facilitated principal contractor safety forums to share information and safety strategies.

The safety of all

The safety of our people and the public is essential. Safety is a Powerlink value and is central to all of our activities. We are committed to the continuous improvement of our safety culture and safety performance.

Our Safety Steering Committee reports quarterly to the Board's Audit, Risk and Compliance Committee on compliance with legislation, health and safety performance and other significant health and safety developments. The committee also reports to the Board's Human Resources and Remuneration Committee on strategies, initiatives and performance, and drives programs to improve safety awareness and safe practices among our people.

During 2011/12, we reviewed our safety scorecard and identified lead and lag indicators to be included in our safety reporting for 2012/13.

Safety culture

As part of Powerlink's ongoing commitment to provide employees with a safe working environment, staff within our Network Field Services business unit took part in an Individual Safety Attributes Test (ISAT) to identify improvement opportunities. ISAT is a third party assessment tool designed to examine safety related behaviours in order to identify opportunities to enhance the workforce safety culture.

The ISAT for our Network Field Services business unit measured safety diligence and conscientiousness, coping with pressure, responsibility for safety, communicating safety information and confidence in delivery. The results of the ISAT indicated the business unit displayed a sound level of safety judgement, appropriate behaviours in respect to safety, and may benefit from mentoring and development to promoting more proactive behaviours. Specific opportunities for improvement were identified for all employees.

We are using the information gathered through the ISAT to assist in reviewing the current processes, employee training and safety programs to ensure their suitability and their capacity to continue to provide improvements in safety performance. An action plan has been developed and is being implemented to drive improvements in safety. The ISAT program has been extended to other appropriate work groups where it is expected to provide useful feedback to further enhance Powerlink's safety culture.

Safety management

The *Work Health and Safety Act 2011* (Queensland) and associated regulation came into effect on 1 January 2012, reflecting the national model *Work Health and Safety Act*. In preparation for the national harmonised work health and safety legislation, we implemented actions to ensure our business processes, guidelines, procedures and standards reflected the changed legislative requirements. This process resulted in some changes to our business practices.

Powerlink's Executive Leadership Team participated in a series of training sessions and workshops aimed at raising awareness about the new legislative regime and the duties of officers to exercise due diligence, to ensure they and Powerlink comply with health and safety obligations. The training forms part of an ongoing program to ensure Powerlink and our staff meet their work health and safety obligations.

In the first half of 2012, Powerlink also delivered presentations and workshops to inform appropriate personnel of the relevant legislation changes, and their impacts on management of work health and safety.

Annual Electrical Safety Audit

Our Electrical Safety Management System is certified annually by an approved external auditor, as required by the *Electrical Safety Act 2002*. The audit in September 2011 found Powerlink continues to meet electrical safety legislative requirements. As a result our Electrical Safety Management System has been recertified. Strategies are being implemented to address the improvement opportunities identified by the audit:

- Construction release protocols have been established and are being rolled out, and associated processes have been amended, to address an improvement opportunity at the interface between construction and commissioning of a built transmission asset.
- A high level safety process review is being undertaken in a staged approach across the business to address an improvement opportunity in circumstances where Powerlink assumes Principal Contractor status for project work.

Safety training

Powerlink is moving to align its safety training to the Australian Electricity Supply Industry (ESI) Skills Passport and its corresponding units of competence from the Australian Quality Training Framework. In 2011/12 we reviewed our existing approach to safety training and identified an opportunity to improve the quality of training and services, and ensure a consistent business-wide approach.

Contractor safety

Tragically during 2011/12 two people died in separate incidents while working as contractors on Powerlink projects. One incident occurred on a maintenance project; the second occurred on a transmission line construction project. Powerlink considers any workplace death to be unacceptable and we acknowledge the importance of our role in contributing to improved safety performance by our contractors.

In 2011/12 we actioned a number of strategies to focus on safety on our worksites and promote a safety culture, including contractor forums and audits, and site observation tours by senior management (as described in the case study on page 13).

Safety forums

In 2011/12, Powerlink facilitated several construction contractor safety forums as an opportunity for Powerlink and its contractors to address safety challenges and improve safety culture.

We facilitated one safety forum for transmission line construction contractors and two safety forums for substation construction contractors. The forums have been successful in generating open exchange and shared learnings which contribute to enhanced safety on Powerlink work sites.

Corporate audits

Powerlink audits major contractors to assess their safety culture from a corporate perspective. The audits, undertaken by a third party, include a desktop audit of safety, environment and quality processes within each organisation. Auditors then move into the field, seeking to assess alignment between on-the-ground performance and the contractor's corporate processes.

During 2011/12, we undertook audits of each of our major construction contractors. The outcomes of the audits are key inputs to our contractor safety forums.

Public safety and infrastructure security

To ensure public safety and the secure operation of the transmission network, Powerlink prohibits certain activities on our easements.

The terms and conditions of our electricity transmission line easements inform landowners of the restrictions applying on the easement. Under the *Sustainable Planning Act 2009 (SPA)* Powerlink is a referral agency for development applications adjacent to existing transmission line easements. When responding to these applications we include appropriate safety advice, particularly with regard to electrical clearance to high voltage infrastructure. We also provide safety advice in response to landowner enquiries about activities on or near our easements.

In 2011/12, we began a campaign of direct letters to landowners who have a transmission line easement on properties where cane farming is undertaken. The letters contain a reminder of personal and operational safety guidelines, and methods for contacting Powerlink for further information.

We also provide information on our website and operate a 24-hour contact number for members of the public who have queries about safety near our transmission assets, including the retrieval of objects inside substation sites.

CASESTUDY

FRESH EYES ON SITE SAFETY

Site observation visits by our senior managers help to reinforce and strengthen our safety culture.

In this first year, the program has involved about 30 visits by engineering senior managers to our substation and transmission line construction sites throughout Queensland. While on site, managers observe first-hand the safety, quality and environmental issues, and engage with the site workers.

Roland Vitelli, Manager Engineering, said the observation visits were valuable for both the Virginia-based managers and the site work teams.

"When I tour a site, I speak with the site manager and the people at the coalface, see their work in action, ask questions and learn about the day-to-day challenges they face," Roland said. "There's no doubt it gives office-based managers a better understanding and appreciation of construction work.

"It's important that we keep safety as essential and reinforce this to our workforce and contractors. The observation visits remind site workers that safety is essential and taken extremely seriously by Powerlink.

"A fresh pair of eyes can sometimes spot an opportunity to avoid complacent behaviours and hazards, work through possible solutions and share information about good safety practices observed at other sites."

Roland said the visits were not intended to be audits, rather an opportunity for managers to discuss their observations with the on-site manager, and then take information back to Powerlink's project management team. Where necessary, some findings are targeted by the project's scheduled audit program. The issues are also often addressed in our contractor safety forums.

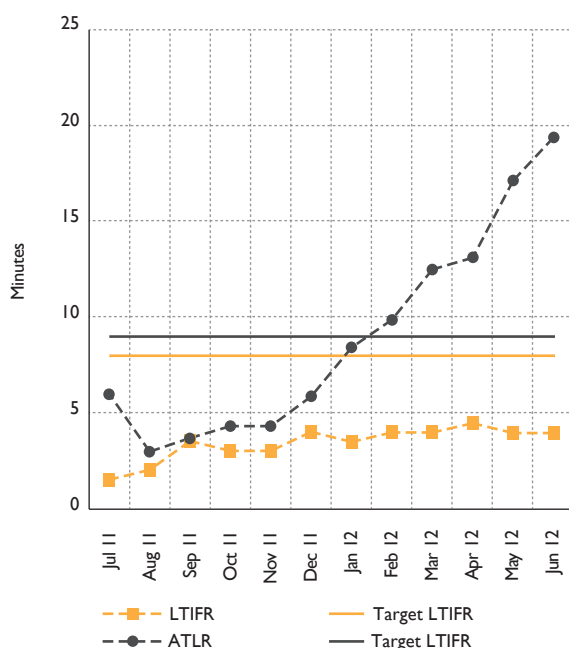
"I find both our Powerlink field-based staff as well as our construction site contractors are usually very appreciative of the site visits," Roland said. "The on-site teams are proud of their work and welcome our interest in a positive way. They are always eager to share their experiences and learn how things can be done better."

Safety performance

A lost time incident is an incident which results in an injury that causes a worker to require a one full day or more off work, and which occurs during work (not on journeys to/from work, or during recess breaks). During 2011/12, Powerlink experienced eight separate lost time incidents. Of these, four of the lost time incidents resulted in only one day lost time, indicating that the severity of the injury was relatively low. There was no common theme or trend demonstrated by the incident or injuries.

Year	LTIFR
2007/08	3.47
2008/09	2.27
2009/10	1.08
2010/11	2.06
2011/12	3.89

Average Time Lost Rate and Lost Time Injury Frequency Rate



The Lost Time Injury Frequency Rate (LTIFR) is the number of lost-time injuries per million hours worked. Powerlink's LTIFR remains below target for 2011/12, but has seen a slight increase this year.

Although the majority of lost time injuries are of short duration, the Average Time Lost Rate (ATLR) has increased in the period since December 2011.

Health and wellbeing

We advocate for a healthy workforce by providing information and access to health services. The types of services offered vary based on individual roles and their specific needs. In 2011/12 we provided education campaigns associated with our annual Flu Busters and Sun Safe programs.

A healthy workforce supports our safety culture and safety performance goals, and in turn our broader business performance.

LOOKING FORWARD

In 2012/13 and beyond, we will:

- review our safety reporting framework and recording of safety issues to ensure the organisation has a good understanding of safety performance, safety culture and the effectiveness of early intervention strategies
- review the effectiveness of safety practices, performance and updated reporting framework in contributing to our desired safety outcomes
- investigate opportunities to apply safety behaviour testing as part of recruitment for key roles in our business.



POWERLINK AND THE NEM



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.

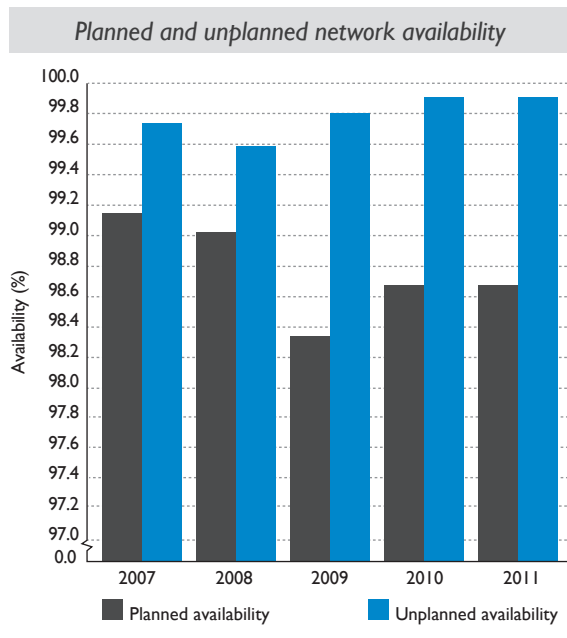
Network availability

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.



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.

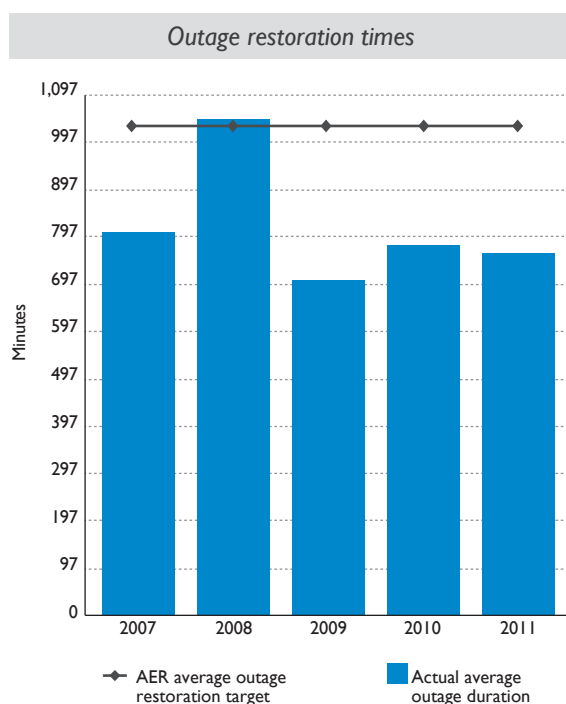
"Our focus was on providing high quality data and documentation to meet the requirements of the NER and support the AER in their decision making. The team relied on the people within our business to provide the information required throughout the process to develop compliant proposals and answer questions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



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.

LOOKING FORWARD

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.



NETWORK STRATEGY AND OPERATIONS



*Transmission Barehand
Live Linesperson,
Andre Leebod.*

NETWORK STRATEGY AND OPERATIONS

ACHIEVING

- recognition as a top performer in terms of cost efficiency and network reliability through international benchmarking
- implemented new methods of replacing and extending the life of parts of our network
- developed new strategies to monitor and respond to weather events that may impact our network
- finalised approvals to acquire easements and sites for 13 future transmission projects
- implemented new substation technology to improve performance.

Power system security

Powerlink oversees the operation of the electricity transmission network 24/7. Working in conjunction with the Australian Energy Market Operator (AEMO), Powerlink ensures the network is operated in a safe, secure and reliable manner.

Our Energy Management System (EMS) was upgraded last year to better meet our emerging business needs. In its first full year of operation, the EMS operated with 100 per cent availability, enabling real-time monitoring and control of the transmission network, as well as data analysis and assessment of the impact of unplanned outages.

Our upgraded dedicated network operator training facility has improved the availability of training in procedures and systems for our network operators. Ongoing training ensures our operators maintain and enhance their capabilities in managing conditions and contingency events on the transmission network, contributing to Powerlink's ability to operate the network in safe, reliable and secure manner.

CASESTUDY

EFFICIENCY GAINS THROUGH SMART SUBSTATION DESIGN

Powerlink has adopted the International Electro-technical Commission (IEC) standard IEC 61850 Communication and Systems for Power Utility Automation, which will enable us to increase the efficiency of control, monitoring and protection systems in our substations.

The new standard provides a platform for Powerlink to adopt new technologies that improve communication between electronic devices used within and outside of our substations, and will deliver higher levels of security and reliability.

Pascal Schaub, Principal Consultant for Digital Technology Infrastructure, said the new solution delivered significant benefits.

"The design, testing and construction are less labour intensive and deliver significant efficiencies and safety improvements," Pascal said. "There are also far fewer connections between electronic devices in the substation and those connections are fibre optic, rather than the copper wiring previously used."

He said Powerlink was implementing the new standard through a phased approach.

"In the first phase, we are developing and implementing a design solution for substation control and protection devices within the substation control building. This is referred to as an IEC 61850 station bus solution. Pilot projects to implement this phase are under way at our Redbank Plains and Blackstone substations.

"The second phase involves implementing new and emerging technology with electronic interfaces between the substation control room and the primary plant equipment located within the substation yard. This is referred to as an IEC 61850 process bus solution, with the process bus being the interface between the control building and the switchyard.

"In 2011/12 we completed the first application of IEC 61850 process bus at a pilot project at our Loganlea Substation, which services metropolitan Brisbane. It was the world's first commercial installation of a substation protection system outside of China that is based entirely upon IEC 61850 process bus.

"Following the success of the project, we are undertaking four more substation refurbishments using the same methodology.

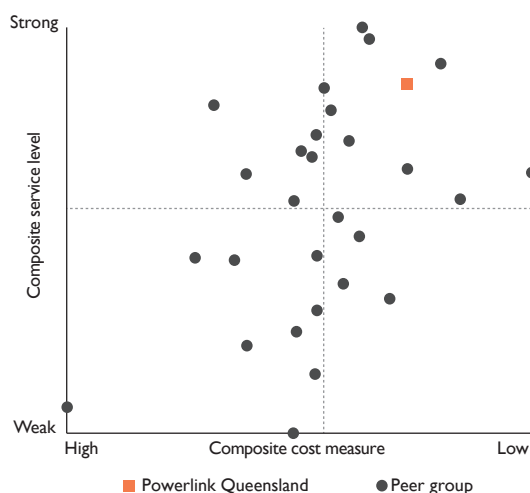
"The learnings from Loganlea Substation have been important and will continue to be realised as Powerlink works towards a full implementation of the new international design standards."

International benchmarking

Powerlink participated in the International Transmission Operations and Maintenance Study (ITOMS) 2011, a biennial benchmarking study of network performance and practices.

Among the 27 international transmission businesses participating in ITOMS 2011, Powerlink was identified as a top quartile performer in terms of cost efficiency and network reliability in both transmission line and high voltage substation categories. Powerlink has participated in ITOMS since 1995, and during the past decade has consistently achieved top quartile performance.

ITOMS also examines the maintenance policies and work practices adopted by participating businesses and offers a forum for international collaboration and information sharing.

ITOMS overall composite benchmark
non-weighted average

Electricity demand forecasts

Consistent with the National Electricity Rules (NER), Powerlink publishes an Annual Planning Report (APR) in June each year, which is issued to National Electricity Market (NEM) participants and other interested parties and is available on our website. The APR provides information about the outlook for the electricity transmission network in Queensland and includes information on forecast electricity requirements, the transmission grid's capability and potential network developments required in the future years, to ensure an efficient, safe and reliable network.

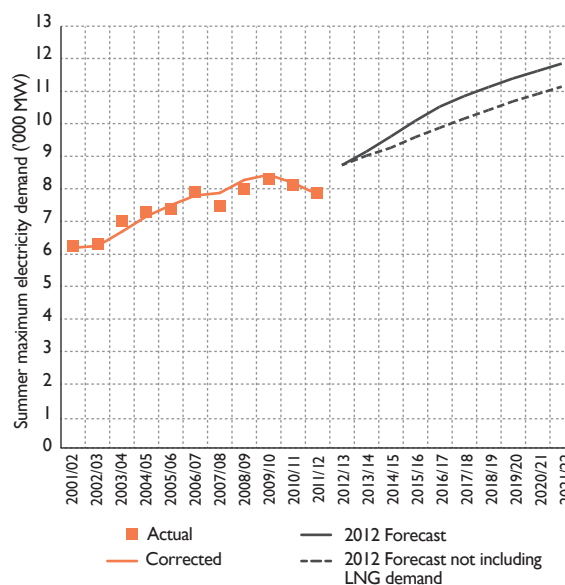
In December 2011, Powerlink undertook a review of demand forecasts from its 2011 APR and published the results in an Annual Planning Report 2011 Update. We undertook the review to support our Revised Revenue Proposal to the Australian Energy Regulator (AER) and to ensure the AER was working with the most recent information. The APR takes a long-term view of electricity demand and energy forecasts and is very dependent on changeable external factors. The update showed there had been some adjustment of figures over the six month period.

The 2012 APR, which was issued on 30 June, indicates that peak electricity demand has steadied in recent years, and was in fact lower in 2012 than in previous years. However peak demand is forecast to increase by an average of 3.5 per cent per year over the next 10 years, which reflects the predicted trends in Queensland's economy – a return to growth following the recent period of economic slowdown. This growth is driven primarily by emerging electricity requirements in the Surat Basin due to proposed upstream processing facilities for multiple liquefied natural gas (LNG) projects and the related growth in the service towns in this region. Without including the LNG industry, forecast demand growth would be 2.8 per cent per year over the next 10 years.

The long-term statewide electricity demand forecast has been revised down when compared to past forecasts due to the slower than anticipated recovery of the State's economy, continued uptake of household solar initiatives, general consumer response to rising electricity prices and the fact that households used less air-conditioning in the mild summer of 2011/12.

This electricity demand forecast for the next 10 years is used by Powerlink to determine timely, safe and efficient transmission arrangements to meet customer needs at the lowest long-run cost.

Queensland maximum electricity demand forecast



* The starting value for the forecast demand (the 2012/13 summer demand) takes account of economic growth forecast to occur from the 2011/12 to 2012/13 summer period. This starting value also takes account of the fact that the peak temperature day during the 2011/12 summer occurred in the January holiday period and therefore was lower than it would have been had similar weather conditions occurred several weeks later.

Capital works program

In 2011/12, Powerlink invested \$752.9 million in capital works projects throughout Queensland to ensure our transmission network continues to meet reliability standards and electricity demand for more than two million customers and to underpin Queensland's economic development, including resource sector projects. We develop our regulated (prescribed) network to meet the needs of electricity consumers and also develop non-regulated transmission assets on a user-pays basis in response to requests by large business customers for example, coal mines and liquefied natural gas developments.

During the next five-year period to 30 June 2017, Powerlink is planning to invest more than \$3.5 billion in capital works to: connect customers, augment the network to meet electricity demand, extend the life of existing assets to maintain reliability of electricity supply, and replace existing assets which have reached the end of life to maintain reliability of electricity supply. Regulated (prescribed) investments make up about 85 per cent of this work. Our investment in regulated (prescribed) projects is expected to decrease in real terms when compared to the five years to 30 June 2012.

Investments are subject to continuous review regarding scope and timing to ensure electricity services are delivered at the time required and at the lowest long-run cost to customers.

Replacement and life extension works

About 36 per cent of our 2011/12 capital works budget was invested in replacement and life extension projects to ensure we continue to maintain a reliable electricity transmission supply. Approximately 50 per cent of the proposed regulated (prescribed) capital allowance for the next five-year period will be invested in replacement works.

As with all activities on our network, we endeavour to minimise the impacts of these works on the NEM and electricity customers through the use of innovative and cost effective techniques.

We used a micropile technique to replace ageing transmission tower footings on our Woree to Kamerunga transmission line in Far North Queensland. This technique, which enables foundations to be drilled in areas where space is restricted, was an innovative solution to minimising ground disturbance in our work locations. Other life-extension projects on our transmission lines include tower painting and replacing components of transmission towers.

Within some of our substations we have undertaken refurbishment projects, including replacing electronic protection and control equipment. We are applying the new International Electro-technical Commission (IEC) standard IEC 61850 Communication and Systems for Power Utility Automation discussed on page 20 to our substation refurbishment program.

Strategies to deliver the capital works program

By avoiding the need to take transmission equipment out of service for maintenance or construction works, we further enhance the reliability of electricity supply and meet the network performance targets set by the AER.

Our live substation and live line procedures have been developed, trialled and approved to ensure the safety and efficiency of our highly trained and skilled technicians. During 2011/12, a new live line procedure was approved for helicopter stringing of new conductor (powerline wire) onto one side of a transmission tower; next to a live conductor suspended on the other side of the transmission tower. A new live substation work method was also approved to upgrade the busbar at Tarong Substation.

As the footprint of our network moves into South West Queensland, we are preparing to establish a local presence to ensure our skilled personnel are readily available to maintain the network and to avoid excessive travel. A new depot near the Surat Basin is planned for establishment by 2016. We currently operate a construction office in Dalby and our people travel regularly to areas within South West Queensland.

Continuous improvement and innovation

During 2011/12, Powerlink undertook a trial to evaluate the effectiveness of a construction contractor acting as a 'Recipient' – ensuring they are trained in and responsible for maintaining safety at a work site. A Recipient role is defined by the *Queensland Electricity Entity Procedures for Safe Access to High Voltage Electrical Apparatus* as a suitably qualified person (that is, meeting national competency requirements) approved by Powerlink who is issued with an Access/Test Permit to work on or near isolated high voltage equipment, and is responsible for the electrical safety within a defined work area. To date, this role has been filled by a Powerlink or Distribution Network Service Provider (DNSP) employee.

The objective of this trial is to improve efficiency. A schedule of monitoring, on-site safety auditing and consultation was undertaken within the trial program including an on-site audit by the Electrical Safety Office, which found the work to be compliant with legislative requirements.

The outcomes of the trial support a risk-based approach in transferring the role of Recipient to contractors with appropriate training and qualifications.

Initiatives to improve network performance

Powerlink is committed to further improving its high standard of network performance. In 2011/12 we undertook initiatives including:

- adopting improved weather monitoring and early warning system for extreme weather events such as floods, fires and cyclones by using near-real time weather data and weather measurements to monitor, predict and assess the potential impact on our transmission network assets
- improving extreme weather event management by more closely collaborating with Emergency Services Queensland to improve access to resources, equipment and capabilities
- testing and approving additional procedures to safely undertake live line and live substation works for planned outages on our network
- implementing new condition monitoring systems to maximise reliability performance of the network, including circuit breaker SF₆ gas density monitoring.

Acquiring easements and substation sites

To secure easements and sites for planned future transmission infrastructure, we comply with the *Acquisition of Land Act 1967* and a planning process approved under the *Sustainable Planning Act 2009* (SPA).

This year we undertook a significant number of easement and site acquisition projects, mirroring the activity and growth in the resources and energy sectors in Queensland, particularly in the Surat Basin and Gladstone areas.

In 2011/12 we began work to refine our process for estimating the timeframe for easement and site acquisition, taking into account the many external factors and stakeholders that may be involved in our process. The outcome of these refinements is expected to deliver efficiencies in terms of resource planning, and customer and stakeholder relationships.

Under the SPA Powerlink must obtain planning approval for new electricity infrastructure. Powerlink does this by requesting Ministerial designation of a transmission line route for community infrastructure before a new line is built. Easement and site acquisition projects which reached the stage of Ministerial designation in 2011/12 are detailed in the table below.

Climate change adaptation strategies

Our network assets are designed to a standard which allows them to operate in a range of environmental conditions. Through a risk assessment process we have identified six key aspects of climate change which may have the potential to impact the resilience of our transmission network:

- dust
- flood
- bushfire
- lightning strikes
- extreme winds
- increasing ambient temperatures.

We have established investigatory projects to further our understanding and develop an adaptation plan for each of these key aspects. The projects will identify the current resilience of transmission and substation equipment and assist in improving that resilience.

Easement and site acquisition projects which reached the stage of Ministerial designation in 2011/12

Non-regulated project description	Regulated (prescribed) project description
Designated during 2011/12	
South Queensland <ul style="list-style-type: none"> ■ APLNG Condabri Substation sites ■ Braemar to Kumbarella transmission line ■ Wandoan South to Woleebee transmission line Central Queensland <ul style="list-style-type: none"> ■ Eagle Downs Substation site ■ Goonyella Riverside Mine Switching Station site ■ QRN Bluff Transmission line ■ QRN Duaringa transmission line ■ QRN Wycarbah transmission line 	South Queensland <ul style="list-style-type: none"> ■ Columboola to Wandoan South transmission line ■ Western Downs to Halys transmission line Central Queensland <ul style="list-style-type: none"> ■ Calvale to Stanwell transmission line Far North Queensland <ul style="list-style-type: none"> ■ Ingham to Tully transmission line
Submitted for designation during 2011/12	
South Queensland <ul style="list-style-type: none"> ■ APLNG Condabri transmission line Central Queensland <ul style="list-style-type: none"> ■ Lilyvale to Surbiton (Galilee Basin – Stage 1) transmission line 	South Queensland <ul style="list-style-type: none"> ■ Springdale to Blackwall transmission line ■ Western Downs to Columboola transmission line North Queensland <ul style="list-style-type: none"> ■ Nebo to Broadlea (Northern Bowen Basin – Stage 1) transmission line

Maintaining our efficient network

In 2011/12 we invested \$94.3 million in maintaining the network to ensure the continued high level of reliability and efficiency expected by electricity customers and our regulator, the AER.

When undertaking maintenance on Powerlink's network, we manage our work programs to minimise the planned outages on our network, and consequently the impact on electricity customers and the NEM. Our 2011/12 planned maintenance program was delivered with emphasis on work bundling and programming, and using non-invasive and live work techniques where possible to minimise the frequency and duration of network outages.

Network maintenance activities 2011/12

Target	Performance	% of target achieved
Planned transmission lines maintenance works (number of work units*)		
1,798.1	1,761.6	98%
Planned substation (including secondary systems) maintenance works (number of work units*)		
8,378.6	8,122.7	97%
Communication site maintenance works (number of work units*)		
893.7	887.4	99%
Total maintenance activities (number of work units*)		
11,070.4	10,771.7	97%

* Work units are used to manage routine maintenance. A work unit represents the comparative effort of work that is required to perform a particular routine maintenance task.

Telecommunications

Powerlink operates a telecommunications network to facilitate the protection, control and monitoring of our transmission network. Limited spare capacity on our telecommunication network is contracted to major customers.

During 2011/12, we installed 232 kilometres of Optical Fibre Ground Wire (OPGW) in North Queensland. The most significant installations were between Yabulu South and Ingham South Substations, and Kareeya, Chalumbin and Turkinje substations.

We also replaced a range of ageing telecommunications equipment in North and Central Queensland. As a result of installing next generation telecommunication equipment, we have significantly improved the reliability and capacity of communications between substation sites and our network control centre.

Infrastructure security

Powerlink's security policy and initiatives target the safety of our people and the public, protection of our network as critical infrastructure, and the need to ensure business continuity.

We continue as a participating member of the International Electricity Infrastructure Assurance (IEIA) Forum to ensure we remain abreast of developments in infrastructure security, and the Energy Sector Group under the Commonwealth Government's Trusted Information Sharing Network (TISN). This year Powerlink also became a member of the State Interdepartmental Committee for Bushfires.

Contingency planning and corporate emergency response

Powerlink's suite of corporate emergency management response plans are regularly reviewed and tested to ensure we have the capability to quickly respond to any network or corporate emergency while maintaining a secure and reliable transmission service.

Applying what we learnt from the South East Queensland floods in early 2011, we have improved our response plans for flood events that impact, or have the potential to impact, our infrastructure.

To refine and ensure our people are familiar with the emergency management response plans, we participated in a number of internal exercises and an annual desktop exercise in conjunction with AEMO.

LOOKING FORWARD

In 2012/13 and beyond, we will:

- continue to evaluate and improve our capability to efficiently deliver our capital works program throughout Queensland
- investigate new methods to facilitate the implementation of new technology and work techniques
- undertake substation refurbishments using substation protection systems based on IEC standard 61850 and work towards full implementation of the design standard
- continue to refine our processes for estimating timeframes for easement and site acquisition.



NETWORK DEVELOPMENT



ACHIEVING

- completed four major regulated (prescribed) transmission network development projects to replace transmission equipment reaching the end of its useful life
- completed two non-regulated customer connection projects
- work is progressing on construction of 10 major regulated (prescribed) transmission developments to be completed over the coming years, which include both new and replacement projects.

Assessing the need for network development

There are a number of drivers that trigger the need for Powerlink to develop our network. The main drivers include:

- the need to build new infrastructure or implement non-network solutions to meet electricity demand
- replacement of aged infrastructure to maintain security of electricity supply
- construction to directly connect a major industrial customer into the transmission network.

Non-regulated customer connections

New transmission lines and substations may be constructed when a major industrial customer (such as a generator or mine) needs to connect into the electricity network. When Powerlink constructs a new transmission line or substation as a non-regulated customer connection, the cost of acquiring easements, constructing and operating the transmission line or substation are paid for by the customer making the connection request, under a user-pays arrangement over the life of the agreement. For more information about our customer connection process, please refer to 16.

CASESTUDY

**TRANSMISSION LINE WILL
BOOST SUPPLY TO CENTRAL
AND NORTH QUEENSLAND**

The Calvale to Stanwell transmission line is currently being constructed to reinforce electricity supply in the Central and North Queensland regions, including Gladstone and Rockhampton, and to cater for growth in electricity demand in the resource, industrial and residential sectors.

The 100 kilometre line runs between Calvale Substation (near Biloela, adjacent to Callide A Power Station) and Stanwell Substation (near Rockhampton, adjacent to Stanwell Power Station). The early stages of the project involved removing a de-energised transmission line.

Most of the new transmission line is being constructed on existing easements, which minimises the disruption to landowners, the environment and the wider community.

Kish Eleperuma, Project Manager, said construction of the new transmission line began in October 2011 and is tracking on schedule, despite heavy weather in the region.

"The Powerlink project team is working closely with all stakeholders including landowners to keep them informed about our activities and to minimise the impact of our construction works," Kish said.

"The Calvale to Stanwell transmission line will traverse varied landscapes, including areas of thick vegetation which require specific strategies for constructing access, with minimal environmental impacts.

"A new tower design has been developed to suit the terrain and requirements of this project, and meet Powerlink's design standards. It has been proven successful and may be used on future Powerlink projects."

Kish said regular audits were undertaken on the project and helped to reinforce the essential safety and environmental standards on site.

Regulated (prescribed) investment

Powerlink is required to deliver electricity transmission services to the reliability of supply standards set for it by the Queensland Government, at the lowest long-run cost for consumers. A key driver of the need for new transmission lines and substations is peak demand for electricity. Peak demand is the maximum electricity demand, which occurs at a specific point in time, and is different from overall or daily electricity demand. We have a legal obligation to develop our transmission network so that it can reliably meet peak demand.

New substations and transmission lines may also be needed as replacements for equipment which has reached the end of its useful life. When assessing the replacement of assets, we consider the most appropriate and economic options including complete replacement or life extension. About 36 per cent of our regulated (prescribed) 2011/12 capital works budget was invested in replacement and life extension projects.

Over the next five-year period about 50 per cent of the proposed regulated (prescribed) capital allowance will be invested in replacement and life extension works.

Prior to building a new transmission line or substation we undertake a thorough assessment of alternatives and options to ensure the solution selected is the lowest long-run cost to electricity consumers, while also meeting a balance of safety, environmental and social factors in accordance with the National Electricity Rules.

When identifying network augmentation solutions Powerlink is obliged under legislation to apply a comprehensive assessment process, known as the Regulatory Investment Test for Transmission (RIT-T), an economic benefit test developed by the AER. In applying the RIT-T a consultation process must be conducted, which calls for interested parties and NEM participants to provide feedback on Powerlink's potential network augmentation solution and put forward any credible alternative solutions such as demand-side management. All solutions are evaluated in accordance with the RIT-T economic benefit test to determine which solution can be delivered at the lowest long-run cost to consumers. Powerlink does not build any new regulated (prescribed) network augmentations without going through this process.

Current consultations on regulated (prescribed) network investment:

As at 30 June 2012, Powerlink was undertaking three consultations for proposed transmission augmentations:

- Supply to Bowen Basin coal mining area
- Supply to the southern Brisbane area
- Queensland/New South Wales Interconnector upgrade project.

Major network augmentation projects (regulated)

Major transmission developments: Completed in 2011/12				
Brief description	Project purpose	Milestones achieved	Delivered on or under budget	Delivered within approved schedule
North Queensland				
Yabulu South to Ingham replacement transmission line				
Construction of a 132 kilovolt transmission line to replace an ageing line between Ingham and Yabulu Substations.	To ensure continued reliability of supply to Far North Queensland.	Commissioned 2011.	Final costing is still under progression.	✓
Central Queensland				
Gin Gin Substation				
Replacement of 275/132 kilovolt transformers.	To ensure continued reliability of electricity supply to the Wide Bay area.	Commissioned progressively from 2010 to 2012.	✓	✗ Commissioning of the second transformer was delayed. The timing of outages was adjusted to meet the network need.
South Queensland				
Belmont Substation				
Replacement 275/110 kilovolt transformers and rebuilding and replacement of aged equipment at the 110 kilovolt Belmont Substation.	To ensure continued reliability of electricity supply to South East Queensland.	Commissioned 2011.	✓	✗ Significant weather and network outage constraints impacted on the complex and integrated schedule. However the project was still commissioned in time to meet the network need.
Blackstone Substation				
Replacement of aged equipment at the 110 kilovolt Swanbank A Substation at the new Blackstone Substation.	To ensure continued reliability of electricity supply to South East Queensland.	Commissioned 2011.	✓	✓

Major network augmentation projects (regulated) *continued...*

Major transmission developments: Under construction 2011/12				
Brief description	Project purpose	Construction timetable	Currently within budget	Currently within approved program
North Queensland				
Cardwell to Ingham transmission line				
Construction of a 132 kilovolt transmission line to replace an ageing line between Cardwell and Ingham substations.	To ensure continued reliability of electricity supply to North Queensland.	Construction to be completed in 2013/14.	✓	✓
Tully to Cardwell transmission line				
Construction of a 132 kilovolt transmission line to replace an ageing line between Tully and Cardwell substations.	To ensure continued reliability of electricity supply to North Queensland.	Construction to be completed in late 2012.	✓	✓
Central Queensland				
Bouldercombe Substation				
Installation of a 275/132 kilovolt transformer and replacement of aged secondary systems equipment.	To ensure continued reliability of supply to Central and North Queensland.	Construction to be completed in 2013/14.	✓	✓
Calvale to Stanwell transmission line				
Construction of a new 275 kilovolt transmission line between Calvale Substation and Stanwell Substation.	To ensure continued reliability of electricity supply to Central and North Queensland.	Construction to be completed in 2013/14.	✓	✓
Calliope River Substation				
Replacement of aged equipment at the Gladstone Substation at the new Calliope River Substation site.	To ensure continued reliability of electricity supply to the Gladstone area.	Construction to be completed 2015. Final commissioning works deferred to coordinate with generator outages.	✓	✓
South Queensland				
Columboola to Wandoan South transmission line and Wandoan South Substation				
Construction of a new 275 kilovolt Wandoan South Substation and a 275 kilovolt transmission line between Columboola and Wandoan South Substations.	To ensure continued reliability of electricity supply and increase capacity to meet growing electricity demand in South West Queensland.	Construction to be completed in 2012/13.	✓	✓
Columboola to Western Downs transmission line and Columboola Substation				
Construction of a new 275 kilovolt Columboola Substation and a 275 kilovolt transmission line between Columboola and Western Downs substations.	To ensure continued reliability of electricity supply and increase capacity to meet growing electricity demand in South West Queensland.	Construction to be completed 2013/14.	✓	✓

Major network augmentation projects (regulated) *continued...*

Major transmission developments: Under construction 2011/12				
Brief description	Project purpose	Construction timetable	Currently within budget	Currently within approved program
Loganlea Substation				
Installation of a new 110/33 kilovolt transformer and replacement of aged equipment at the 110 kilovolt Loganlea Substation.	To ensure continued reliability of electricity supply to South East Queensland.	Construction to be completed 2014.	✓	✓
Richlands Substation				
Replacement of aged equipment at the 110 kilovolt Richlands Substation.	To ensure continued reliability of electricity supply to South East Queensland.	Construction to be completed in 2013.	✓	✓
Western Downs to Halys transmission line and Western Downs and Halys substations				
Construction of new 275 kilovolt Western Downs and Halys substations and a 275 kilovolt transmission line between Western Downs and Halys substations.	To ensure continued reliability of electricity supply and increase capacity to meet growing electricity demand in South East Queensland.	Construction to be completed in 2012/13.	✓	✓
Major transmission developments: Committed but not yet under construction				
Brief description	Project purpose	Construction timetable		
North Queensland				
Collinsville Substation				
Replacement of ageing 132 kilovolt equipment at Collinsville Substation.	To ensure continued reliability of electricity supply to North Queensland.	Construction to be completed in 2014.		
Nebo Substation				
Replacement of 275/132 kilovolt transformers at Nebo Substation.	To ensure continued reliability of electricity supply to North Queensland.	Construction to be completed progressively from 2013 to 2014/15.		
South Queensland				
Blackstone Substation				
Replacement of aged equipment at the 275 kilovolt Swanbank B Substation at the new Blackstone Substation.	To ensure continued reliability of electricity supply to South East Queensland.	Construction to be completed in 2014.		
Bulli Creek Substation				
Replacement of aged secondary systems equipment at Bulli Creek Substation.	To ensure continued reliability of electricity supply to South East Queensland.	Construction to be completed in 2013/14.		

Customer connection works (non-regulated – paid for by the customer)

Customer connection works: Commissioned in 2011/12			
Brief description	Project purpose	Customer	Milestones
North Queensland			
Goonyella Riverside Mine connection			
Construction of a 132 kilovolt switching station at Moranbah.	Increase electricity supply capability for coal mine expansion.	BHP Billiton Mitsubishi Alliance (BMA)	Commissioned June 2012.
Central Queensland			
Electrification of Blackwater rail system			
Construction of a 275 kilovolt substation at Raglan (south of Rockhampton).	Increase electricity supply capability to Raglan rail site.	QR National	Commissioned November 2011.
Customer connection works: Under construction in 2011/12			
Brief description	Project purpose	Customer	Construction timetable
North Queensland			
Eagle Downs Mine connection			
Construction of a 132 kilovolt switching station.	To supply electricity for the new Eagle Downs coal mine.	Eagle Downs Coal Management Pty Ltd (EDCM)	2012/13
Central Queensland			
Electrification of Blackwater rail system			
Construction of three new 132 kilovolt transmission lines to three new QR National substations at Bluff, Duinga and Wycarbah.	To provide high voltage electricity supply to Wycarbah, Bluff and Duinga rail sites and help reinforce the electrified CoalRail network in Central Queensland.	QR National	2012/13
South Queensland			
Kumbarilla Park connection			
Construction of a new 275 kilovolt transmission line between Braemar Substation and a new substation at Kumbarilla Park.	Provide high voltage electricity for coal seam methane and liquefied natural gas compression.	Queensland Gas Company (QGC)	2012
Woleebee Creek connection			
Construction of a short 132 kilovolt transmission line from Powerlink's future Wandoan South Substation to Woleebee Creek.	Provide high voltage electricity for coal seam methane and liquefied natural gas compression.	Queensland Gas Company (QGC)	2013
Columboola area connections			
Construction of three 132 kilovolt switching stations and new 132 kilovolt transmission lines between these switching stations and the Columboola Switching Station.	Provide high voltage electricity for coal seam methane and liquefied natural gas compression.	APLNG (Asia Pacific Liquefied Natural Gas)	Progressively during 2013/14.

Customer connection works (non-regulated – paid for by the customer) *continued...*

Customer connection works: Committed but not yet under construction as at 30 June 2012			
Brief description	Project purpose	Customer	Construction timetable
North Queensland			
Wotonga rail connection			
Construction of 132 kilovolt switching station.	To supply the new rail electrification project in the Bowen Basin.	QR National	2014/15
Central Queensland			
Galilee connection			
Construction of a new 275 kilovolt transmission line from Powerlink's Lilyvale Substation to the Galilee Basin.	Provide high voltage electricity for the proposed Alpha and Kevin's Corner coal mines.	Hancock Coal Pty Ltd	2014/15
South Queensland			
Orana connection			
Construction of a new 275 kilovolt substation at Orana (SSW of Chinchilla).	Provide high voltage electricity for coal seam methane and liquefied natural gas compression.	APLNG (Asia Pacific Liquefied Natural Gas)	2014/15
Wandoan Coal Mine connection			
Construction of a 132 kilovolt transmission line between Powerlink's future Wandoan South Substation and Xstrata's Wandoan Coal Mine.	Provide high voltage electricity for the proposed Wandoan Coal Mine.	Xstrata	2014/15
North West Surat connection			
Construction of three new 132 kilovolt switching stations and new 132 kilovolt transmission lines between these switching stations and Powerlink's future Wandoan South Substation.	Provide high voltage electricity for coal seam methane and liquefied natural gas compression.	APLNG (Asia Pacific Liquefied Natural Gas)	Progressively in 2014/15.

CASESTUDY

**CAREFUL SCHEDULING TO
DELIVER THE CALLIOPE RIVER
SUBSTATION**

The completion of the Calliope River Substation in May 2012 marks the first stage in a complex project to replace the original Gladstone Power Station Substation. As well as connecting the Gladstone Power Station to the transmission network, the substation is an important link in the supply of electricity to the growing Central Queensland and Gladstone region.

With power station operations scheduled to continue past 2029 and increasing electricity demand in Central Queensland – driven by growth in the industrial, coal mining and minerals processing sectors – the original substation needed to be replaced.

The Calliope River Substation, comprising 14 substation bays and 17 transmission feeders, is located 2.5 kilometres to the west of the original Gladstone Substation.

The replacement project will in the future deliver a new switchyard for the power station on the original Gladstone Substation site, and associated cabling between the switchyard and the Calliope River Substation.

Paul Woods, Project Manager, said close liaison with Gladstone Power Station owners and operators ensured the construction program did not impact the operations of the power generator.

"Our construction works are carefully scheduled to fall into line with planned outages at the power station," Paul said.

"The first stage of the project was delivered on time and met our target of no significant technical, safety or environmental incidents.

"We prioritised the safety and wellbeing of on-site workers. At times, the conditions at Gladstone were hot and humid, so we introduced strategies to successfully combat heat and fatigue.

"The project Environmental Management Plan guided the work in the flat and swampy environment on Black Harry Island, including importing 146,000 cubic metres of fill to create an elevated substation platform.

"We also carefully planned a series of sediment ponds on site, planted more than 3,500 trees and installed 300 bird boxes. These initiatives are working well in the local environment and attracting wildlife."

The planned 500 kilovolt network

To efficiently meet the forecast long-term electricity demand in South East Queensland, Powerlink has plans to construct a 500 kilovolt transmission network in Southern Queensland. One 500 kilovolt transmission line is capable of carrying about the same amount of electricity as three 275 kilovolt transmission lines, with a much smaller land use requirement. Most of the easements for the future 500 kilovolt network have been progressively acquired over the past two decades, as part of our long-term planning processes.

Since 2009, we have regularly reviewed the timing of the Halys (near Kingaroy) to Blackwall (near Ipswich) 500 kilovolt transmission line, which is the first of Powerlink's future 500 kilovolt projects, to take account of electricity demand forecasts and electricity generation outlook. Our 2012 Annual Planning Report has identified on current forecasts there is sufficient capability in the transmission network and the need for the Halys to Blackwall project is not expected to be triggered until 2018/19.

LOOKINGFORWARD

In 2012/13 and beyond, we will:

- undertake consultation for transmission investments for supply to north of Rockhampton
- progress our capital works program, with about 50 per cent of the regulated (prescribed) component comprising replacement or life extension projects for equipment which has reached the end of its useful life
- complete construction of:
 - Tully to Cardwell replacement transmission line
 - Columboola to Wandoan South transmission line and Wandoan South Substation
 - Western Downs to Halys transmission line and Western Downs and Halys substations.



PEOPLE



*Live Substation Technicians,
Lorne Markham and Tony van Melis
at Abermain Substation.*

PEOPLE

ACHIEVING

- surveyed our employees to measure engagement and guide future activities
- reached agreement on a new enterprise agreement with strong endorsement from our employees
- improved our development engineer program
- a new approach to develop the leadership capabilities of our people
- new recruitment strategies that deliver efficiencies and better selection outcomes.

Employee engagement

Powerlink recognises the importance of having employees who are engaged, who strive to perform and deliver on business objectives. Employee engagement at Powerlink was measured with a staff survey in May 2012. Gaining an understanding of our employee engagement is important to the process of delivering our business strategy. The information we gathered from this survey will be used to develop action plans for future initiatives across the business, and will guide the development of practical outcomes to enhance employee engagement.

Participation in the survey was high, with 84 per cent of Powerlink employees taking part. Participation was above the target rate across all sections of our business, providing validity to the survey results. Results from the survey and action plans will be shared with the business in 2012/13.

Covey reenergised

Powerlink has implemented Stephen Covey's *7 Habits of Highly Effective People* program since 1997. The program has been very successful in helping shape Powerlink's culture and fostering respectful and productive interaction between our people. A review was undertaken during the year to refresh the program and ensure it continues to link directly into Powerlink's business strategy and practices.

CASESTUDY

**IMPROVING RECRUITMENT
PROCESSES AND OUTCOMES**

The efficiency of Powerlink's recruitment processes and the quality of our selection decisions have been enhanced by a number of initiatives introduced this year.

The changes include implementing an online recruitment system so hiring managers can track progress from start to finish. Powerlink also introduced an improved and consistent template for position descriptions, which helps potential applicants to assess their own suitability, skills and experience for advertised roles.

Amy Brutton, Senior Recruitment Services Advisor, said Powerlink had enhanced the support and training available to assist managers to improve their recruitment activities.

"We provide guidance and training for our hiring managers," Amy said. "The training particularly focuses on assessing applicants for team and motivational fit, and finding opportunities to efficiently and effectively assess and reference check candidates against criteria."

Ray Holzheimer, Substation Field Project Manager, has successfully applied the new recruitment strategies to fill field-based, professional and managerial positions.

"The new recruitment process and training adds a lot of value – it saves my time, ensures a standardised process and results in better appointment decisions," Ray said.

"Our position descriptions now more strongly focus on the criteria that really matters to the job, and that helps to select applicants effectively. We then interview with standardised questions to evaluate the applicants' technical fit with the role. Finally, we use improved interviewing techniques to select an applicant with the right behavioural fit.

"The whole process has been streamlined by the improved framework and tools, hand-in-hand with the support and skills training available to managers."

Working at Powerlink Enterprise Agreement

After receiving strong endorsement from our employees, our new Working at Powerlink Enterprise Agreement received final approval from Fair Work Australia and commenced operation on 30 March 2012. The new agreement provides benefits for employees, while balancing legislative requirements, stakeholder and community expectations, key business needs, and underpinning Powerlink's values.

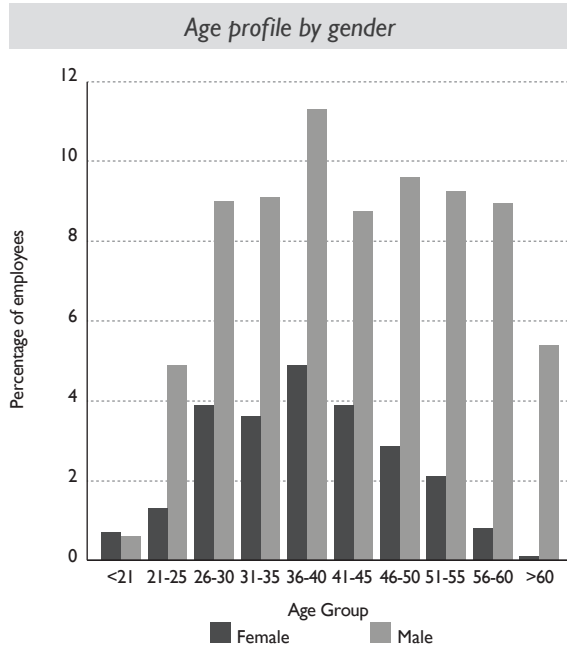
During the negotiation phase, we introduced additional mechanisms to ensure extensive and timely communication with our employees, including updates by email, team talks, drop-in sessions, fact sheets, a dedicated page on our intranet, and a question and answer service.

The Enterprise Agreement was negotiated with our employees and their representatives – the Association of Professional Engineers, Scientists and Managers, Australia (APESMA); the Communications, Electrical, Electronic, Energy, Information, Postal, Plumbing and Allied Services Union of Australia – Electrical Division (ETU); the Australian Municipal, Administrative, Clerical and Services Union, Central and Southern Queensland Clerical and Administrative Branch (ASU); and the Queensland Services, Industrial Union of Employees (QSU).

Workforce profile

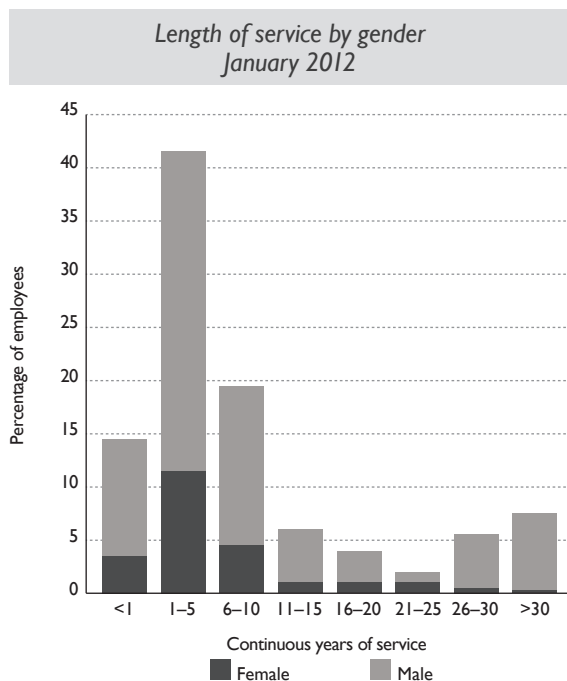
Powerlink employs just over 1,000 people with a range of specialised skills to deliver our business objectives. Our employees demonstrate a high level of commitment and expertise as they perform a range of professional, technical, trade, specialist and administrative roles. Powerlink is firmly committed to a policy of anti-discrimination, which is applied in recruitment, selection and promotion of all employees.

Powerlink's approach to diversity in the workplace creates positive outcomes for the business by ensuring access to the broadest external workforce, particularly in critical skill areas, and to leadership and talent pools. Our employees represent a range of age groups – the Powerlink employee age profile is presented in the 'Age profile by gender' table opposite. In our annual workforce planning, we consider potential retirements and prepare for this through succession planning and by developing skills across the workforce, ensuring critical skills are retained to meet business needs.

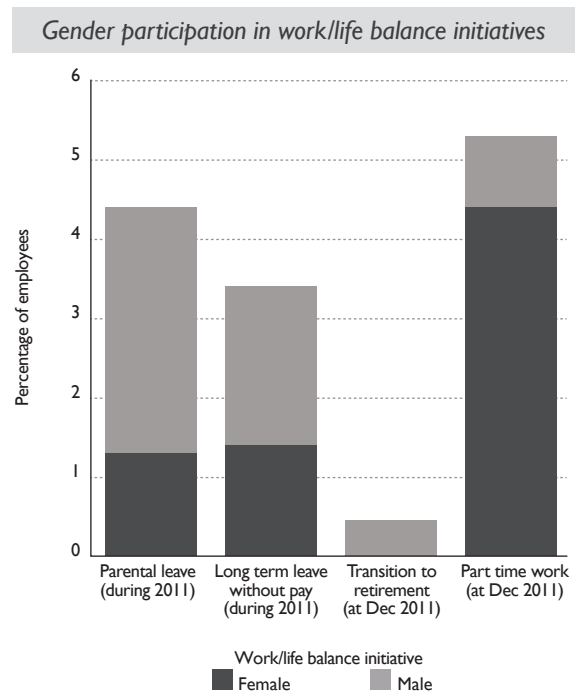


Employees with five years' service or less represent just over half of our workforce, and include the greatest proportion of our female employees. One third of our workforce has greater than 10 years of service. Historically, Powerlink has a low employee turnover: In 2011/12 our employee turnover rate was 4.9 per cent (excluding retirement).

This length of service demonstrates the long corporate memory within the business that contributes to our business capability. It also signals the high skill level of our employees, including the specialised technical capabilities within our workforce.



Powerlink has a suite of work/life balance initiatives designed to encourage and support participation in the workplace, particularly for those employees with family responsibilities. These initiatives include paid parental leave, part time work for parental leave, earlier access to long service leave, job sharing, cultural diversity leave, working from home, purchased leave and phased retirement support. Uptake of these work/life balance initiatives is shared among men and women, with women representing the largest proportion of the part time workforce.



Training and development programs

About seven per cent of our workforce participates in our Trainee and Graduate Development Programs for graduate engineers and information technologists, development engineering officers, administration trainees and apprentices to ensure we have the capability to meet future business requirements.

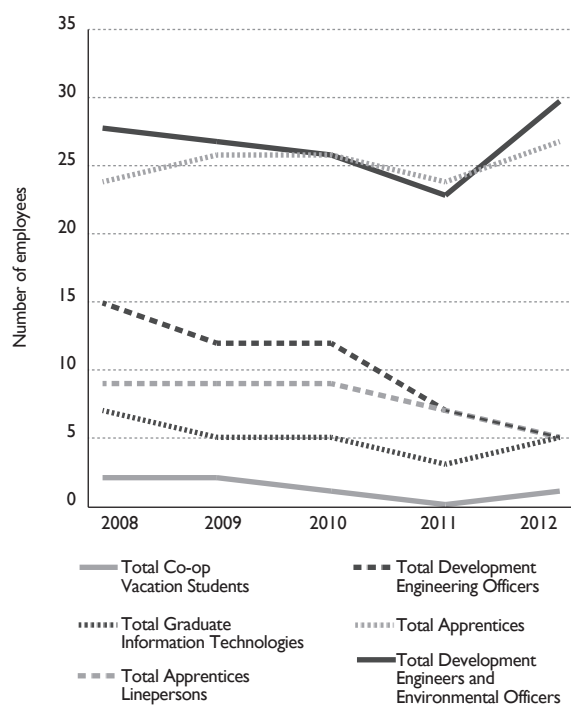
It is our aim that the proportion of female electrical engineers and engineering officers entering Powerlink through development programs is at least proportional to the female student participation rates. During the coming year we expect to put in place actions to facilitate this aim and to measure our progress against it.

In the past year we implemented changes to our development engineer program, focusing on providing participants with a more comprehensive experience across the range of engineering activities within Powerlink.

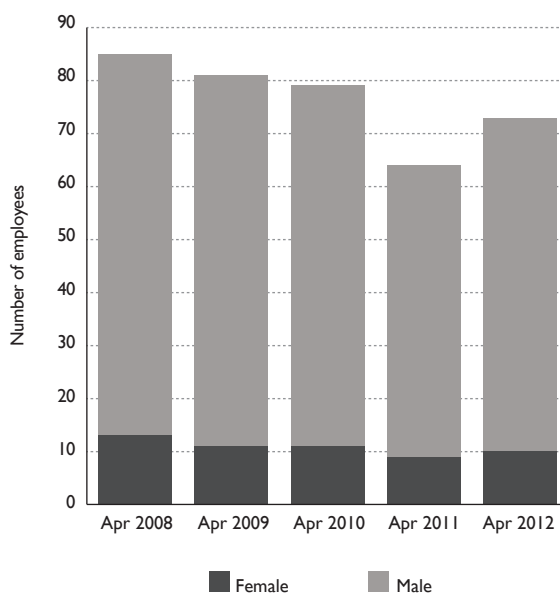
The changes were based on the outcomes of a review undertaken in 2010/11, and included changing the duration of the program from five years to four years, with shorter rotations across a broader aspect of the business. Improvements were also made to the selection process for candidates. To allow these changes to be implemented and embedded, recruitment for the program was temporarily suspended. As a result, the numbers of development engineering officers declined. We plan to increase the number of participants during 2012/13.

A review of the graduate information technologist program will be undertaken in 2012/13.

Employees in development roles



Gender participation in development roles



Management and leadership development

Powerlink's leadership development opportunities include three structured development programs to build the capabilities of our managers.

During 2011/12, a review of our Management to Leadership Program was undertaken to identify improvement opportunities. As a result of this review, we implemented the *9 Conversations in Leadership Program*, consisting of a sequence of externally facilitated group discussions underpinned by contemporary leadership theory. The program is structured to develop and evaluate leadership capabilities, and has delivered demonstrable results in the Australian and South African energy sectors. Currently, 20 leaders are engaged in our program and their experience will be monitored and evaluated to inform our future leadership development strategies.

Our Foundations of Management Series aims to provide all managers at Powerlink with confidence and capability to understand and apply Powerlink policies and procedures related to managing and developing employees. In 2011/12, we offered six modules to managers.

Foundations of Management Module	Number of participants
<i>Employee Development</i> – identifying the development needs of staff and planning to meet those needs.	145
<i>Legal and Risk Management</i> – corporate governance, legal and risk fundamentals.	87
<i>Work Health and Safety</i> – included Powerlink's Safety Management System, overall responsibilities, hazard management, incident and event management, health management, training and authorisation.	106
<i>Change Leadership</i> – insight into the way individuals experience change, and coaching tools and techniques.	60
<i>Navigating the Performance Review Process</i> – planning and conducting effective performance reviews.	100
<i>Effective Resourcing</i> – processes and skills for effective resourcing including documenting clear selection criteria and behavioural interviewing skills.	137

Career progression opportunities

It is Powerlink policy that all positions are advertised internally before they are advertised in an external marketplace, unless there is a strong reason to move directly to external advertising. In this way, Powerlink offers staff opportunities for development and career progression within the business.

Enabling employees to advance their careers and experience new opportunities within Powerlink helps us to maintain a high staff retention rate.

Employee recognition

Recognising excellence in our workplace is one of Powerlink's strategies for creating a desirable culture that helps us to achieve our business goals, and attract and retain high quality employees. Our annual Powerlink Excellence Awards acknowledge individuals and teams who have implemented innovative work practices or initiatives in the workplace and celebrate the achievements of all employees.

Our 2011 Excellence Awards recognised outstanding achievements in the categories of technical, business, safety, leadership and environment and community. In all, two gold, eight silver and 16 highly commended awards were presented to employees across a range of teams.

A number of our employees have received recognition from external parties for their exceptional achievements and potential. We congratulate the following people:

- Chief Executive, Merryn York was named in Engineers Australia's 2012 list of Australia's Top 100 most influential engineers.
- Chief Operating Officer, Simon Bartlett AM received an Order of Australia for service to engineering, particularly to the electricity supply industry in Queensland, and to professional organisations.
- Development Engineer, Sarah Hiley was awarded the University of Queensland E. S. Cornwall Memorial Scholarship. The scholarship enables engineering graduates to gain experience abroad in the electricity industry.
- Manager Environmental Strategies, Stephen Martin received a 2011 CIGRE Technical Committee Award in recognition of his outstanding contribution to the work of Study Committee C3 – System Environmental Performance. CIGRE is the International Council on Large Electric Systems.
- Research and Development Manager, Dr Dave Allan received the Institute of Electrical and Electronics Engineers (IEEE) Power Engineering Society Outstanding Engineer Award (Queensland) for 2011. IEEE is the world's largest professional association for the advancement of technology. In 2011, Dave's appointment as Adjunct Professor at the University of Queensland was renewed for a further three years.

LOOKING FORWARD

In 2012/13 and beyond, we will:

- develop and implement a leadership framework and a new leadership development strategy that incorporates recruitment and selection, performance management, reward and recognition, training and development
- develop and implement a talent management framework that focuses on succession planning, attraction and retention strategies, and identifying the capabilities of our people
- develop a technical training strategy that better meets our future business needs
- develop and implement action plans to enhance employee engagement in response to the outcomes of the employee engagement survey
- continue to roll out improvements to our strategic recruitment process.



ENVIRONMENT

ENVIRONMENT



ACHIEVING

- our field worker environmental training is aligned with new national training modules
- streamlined our Environmental Work Plan process to deliver environmental and efficiency benefits
- reduced our paper consumption and introduced new toner and battery recycling.

Environmental Management System

Powerlink's Environmental Management System (EMS) provides a framework for monitoring and reporting against key environmental aspects of our business activities. During 2011/12, our Environmental Steering Committee began a review of the EMS, considering each aspect's importance to our business, our compliance obligations and response, environmental performance scoring, current information and processes, investments in related research, and areas for improvement.

Our environmental auditing strategy monitors our performance against relevant legislative requirements and internal requirements. Scheduled environmental audits undertaken in 2011/12 included:

- project delivery audits focused on substation construction in Southern Queensland
- substation maintenance audits
- land and environment audits
- an independent audit of our EMS
- an independent audit of our compliance with the *National Greenhouse and Energy Reporting Act 2007* (NGER Act).

The audits confirmed proper implementation of a number of planned improvements, including increased awareness of the condition assessment for containment systems at our substations and improvements in the reporting of non-routine situations on easements. Strategies to address the key areas for improvement identified by the audits are being progressed with our stakeholders and will be reviewed in 2012/13 audits.

The outcomes of all audits were evaluated against our key performance indicators and reviewed by the Environmental Steering Committee.

During the year, Powerlink reported two environmental incidents to the Department of Environment and Resource Management (DERM) (as of 30 March 2012, the relevant functions of DERM are delivered by the Department of Environment and Heritage Protection):

- 16 December 2011 – we advised DERM of a potential sediment release from the Richlands Substation site. DERM undertook inspections and made suggested improvements, but no formal action was taken.
- 11 November 2011 – we advised DERM that Siam weed *Chromolaena odorata* (a Class 1 weed) was discovered at several tower locations on the Yabulu to South Ingham transmission line. While the outbreak was not the result of Powerlink activities, we reported and managed the issue.

Measures to ensure compliance

Powerlink continually monitors the external environment for legislative changes and state planning policies with the potential to affect our activities. Monitoring, combined with consultation with relevant bodies helps us to ensure our activities continue to be compliant. During 2011/12, our initiatives included:

- contributed to an Energy Networks Association (ENA) submission on the Commonwealth draft *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Environmental Offset Policy and accompanying draft offset assessment guide
- readiness to implement the Queensland Government's Biodiversity Offset Policy
- implementing the Queensland Government's Koala Offset Policy
- examining the implications for Powerlink of the *Commonwealth Clean Energy Act 2011*. The carbon pricing mechanism will not apply directly to Powerlink as our emissions are well below the threshold. Powerlink is planning strategies to manage expected minor and indirect impacts.

Environmental training

Powerlink provides both general and specialised environmental training to our employees to ensure they are equipped to undertake their roles and understand their responsibilities. We also recognise World Environment Day annually by providing information and raising awareness among our employees.

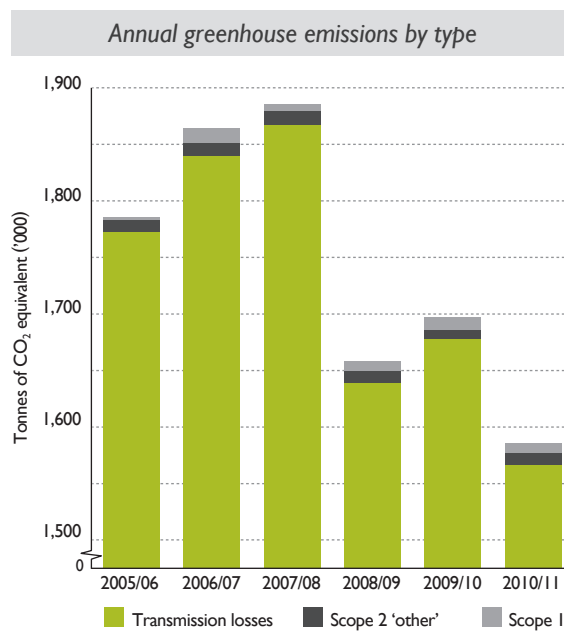
Powerlink has participated in an ENA working group dedicated to developing national guidelines for environmental training and a supporting handbook for electricity industry construction and maintenance teams. These tools will ensure environmental training and awareness is consistently delivered throughout the industry and linked to recognised national competencies. During 2011/12, the suite of national training modules was approved by the Australian Skills Quality Authority.

Powerlink has developed a training matrix for field staff, which aligns with the national training framework. Detailed mapping of current skills and training will be undertaken in 2012/13 to identify the most efficient way of ensuring requirements are met and integrated into business processes.

Emissions management and reporting

Powerlink submitted its annual report on energy and greenhouse gas emissions under the Commonwealth Government's NGER Act. An external audit verified the accuracy of our 2011 report. Our 2012 NGERs report will be submitted as required in October 2012. Following this submission, our audited 2011/12 emissions data will be reported in our 2012/13 Annual Report.

We continue to improve the quality of our data collection and reporting mechanisms, and action strategies to address the opportunities for improvements identified by the independent auditors.



CASESTUDY

NEW APPROACH TO ENVIRONMENTAL WORK PLANS

Our new process for developing and managing Environmental Work Plans (EWPs) for construction, operation and maintenance activities on our easements and sites will help us to better manage environmental matters in the field.

An EWP is a document that maps environmental and Cultural Heritage information, and landowner agreements on Powerlink sites.

Melissa Lunney, Environmental Strategist, said the EWPs have been streamlined to meet business need and to deliver significant environmental and efficiency benefits.

"Previously EWPs were only developed for sites in the Wet Tropics World Heritage Area and could only be modified and accessed by certain parts of the business. Our new approach is to now ensure EWPs are developed for all Powerlink's transmission line, substation and communications sites.

"We've also made them more accessible to teams across the business, which helps us to share important information about how to manage our work in the field.

"If one of our field workers identifies a new issue or constraint, they can now easily add information into the EWP system and produce updated mapping for all users.

"That means our data is more accurate, more accessible and more current, which adds up to better informed decision making on the ground," Melissa said.

At the end of 2011/12, the staged roll-out of the new EWP process and system across the business was almost complete.

Transmission losses

More than 98 per cent of greenhouse gas emissions reported by Powerlink are associated with transmission losses. Transmission losses result from energy lost as heat due to electrical resistance when electricity flows through the transmission network. Greenhouse gas emissions associated with transmission losses can be quantified as the CO₂ emissions associated with the generation of additional electricity to make up for the lost energy.

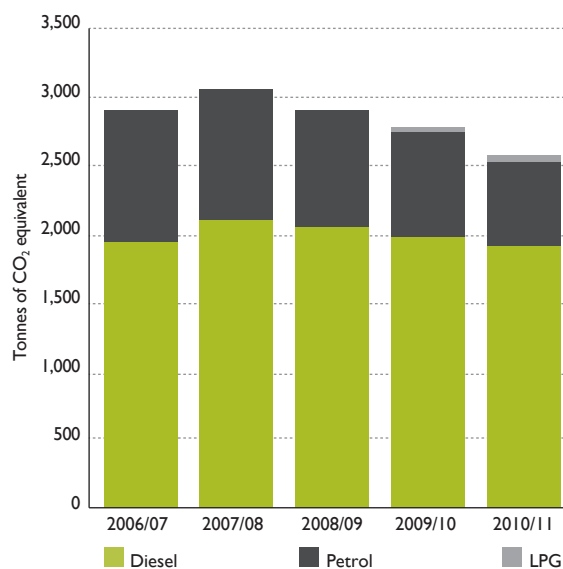
Greenhouse gas emissions associated with transmission losses are influenced by several factors, many outside the direct control of Powerlink, including:

- the actual electricity consumption for each point in time
- location of generating plant supplying the electricity demand
- the fuel type and efficiency of generation supplying the demand
- electrical resistance of transmission lines used in supplying the electrical load.

Powerlink's planning process, which is in line with the AER's Regulatory Investment Test for Transmission (RIT-T), involves financial assessments of transmission loss differences resulting from augmentation and selection of the augmentation option that results in lower transmission losses. This can lead to investments that economically reduce greenhouse emissions.

Fuel consumption

Powerlink's emissions from fuel consumption are predominantly attributable to our vehicle fleet. Fuel emissions decreased in 2010/11 as a result of strategies to replace older vehicles with more efficient vehicles and a decrease in kilometres travelled. Looking ahead to our 2011/12 reporting, we expect an increase in fuel consumption as a result of an increase in our vehicle fleet, and the more remote location of transmission projects which require our people to drive greater distances to sites.

Emissions from fuel consumption, transport and stationary usage

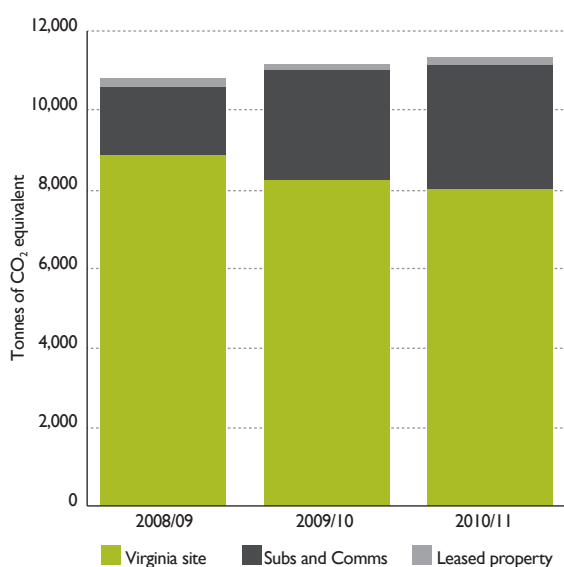
Electricity consumption

Powerlink purchased 6,030 megawatt hours of green power through Ecofund, equivalent to about 69 per cent of the estimated annual energy used at our Virginia site during 2011/12.

Electricity consumption at our Virginia site has decreased over recent years due to the use of energy efficiency measures including smart lighting. Total recorded electricity consumption at substations and communication sites has increased due to an increase in the number of sites and improvements in the quality of data collated.

We expect that our overall electricity consumption figures will show an increase in 2011/12 because of the inclusion of our Narangba warehouse, which opened in mid 2011. We continue to look for opportunities to improve our energy efficiency across our business operations.

Electricity consumption by type



Recycling and waste management

Our well-established regime of recycling business-related waste includes electronic equipment and larger waste items, particularly scrap metal and transformer oil. We encourage our people to act sustainably in their day-to-day business activities. Powerlink provides information about recycling opportunities to all of our employees. In response, our employees participate strongly in recycling initiatives.

This year we focused on reducing our use of paper and printing and, with the support of our employees, reduced our paper consumption by 13 per cent. We also successfully introduced new toner and battery recycling initiatives.

Research and development

Powerlink invests in research focusing on practical land and environmental management issues. We participate in a number of research and development programs that:

- examine wildlife interactions with our infrastructure
- assist us to continually improve our methods of managing vegetation
- assist us to continually improve site stabilisation and rehabilitation practices.

In 2011/12, we maintained our commitment to research projects including:

- investigating the movements of mahogany gliders near powerline easements and their use of fauna crossings in Far North Queensland
- quantifying the ecological value that can be retained on powerline easements by applying different construction techniques and vegetation management practices
- the effect of soil preparation, planting and seeding methods in establishing revegetation sites
- the effect of clearing practices on minimising soil loss in areas of dispersive sodic soils. This project was nominated as a finalist in the 2012 Healthy Waterways awards.

Powerlink is supporting koala research being undertaken by the University of Queensland's Koala Fund (UQKF). The research contributes to the scientific knowledge base on koala behaviour and rehabilitation of koala habitat, and helps meet our obligations under the new *State Planning Policy 2/10: Koala Conservation in South East Queensland*. The research outcomes will help Powerlink continue to refine our approach to conservation strategies, including managing mitigation and rehabilitation activities near koala habitats.

Cultural Heritage

We respect Cultural Heritage and take a long-term view to proactively managing Cultural Heritage for the life of our transmission assets. Powerlink considers two kinds of Cultural Heritage when planning our developments:

- Aboriginal Cultural Heritage – areas and objects that are significant to Aboriginal people
- Historical Cultural Heritage – areas and objects of historical significance post 1788 that are not solely associated with Aboriginal tradition and custom.

When acquiring easements or land to build our transmission assets our aim is to avoid or minimise harm to all Cultural Heritage. We consult with Aboriginal people, Cultural Heritage consultants, local communities, landowners and government agencies to identify any places of spiritual, cultural or historical significance. This enables us to put in place all reasonable and practical measures to avoid or minimise harm to Cultural Heritage.

We are required to meet obligations outlined in the *Queensland Aboriginal Cultural Heritage Act 2003* and the *Queensland Heritage Act 1992*, and Federal Cultural Heritage legislation.

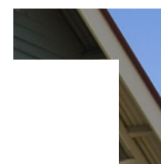
The environmental impact assessment and associated work plans developed prior to construction provide us with a roadmap for how we will manage all types of Cultural Heritage. We also develop Cultural Heritage Management Plans (CHMP) with relevant Aboriginal parties to ensure the management of significant Aboriginal Cultural Heritage areas and objects.

In 2011/12, we continued to build on new relationships with Aboriginal parties in South West and Central Queensland, where Powerlink has a more recent presence.

LOOKING FORWARD

In 2012/13 and beyond, we will:

- continue to review the environmental aspects identified in our EMS
- address the skills and training opportunities identified in 2011/12, in a way that aligns with the national training initiative
- work with research partners to identify methods to recycle our business-related waste materials which currently do not have a market, for example porcelain and toughened glass transmission insulators
- complete the roll-out of our new EWP processes.



COMMUNITY



Senior Project Manager Andrew Owen (right) speaking with community members

COMMUNITY

ACHIEVING

- community engagement on 14 environmental impact assessments for major transmission projects
- engaged with diverse stakeholders through a variety of methods
- reviewed our sponsorship guidelines and identified a more strategic approach to corporate community investments
- responded to 342 applications for development and easement co-use, as well as enquiries from landowners and asset operators about activities on or near our easements.

Stakeholder engagement

As our operations stretch across Queensland, we have a diversity of stakeholders that we engage with when conducting our business. It is our aim to share information with our stakeholders in an effective, timely and transparent way. We use a variety of methods when engaging with our stakeholders, including, but not limited to: face-to-face meetings, providing reports and briefings, workshops, letters, internet and other written and verbal communication.

Throughout the 2011/12 year we have engaged with stakeholders including:

- shareholding Ministers
- government departments
- council officers
- Members of Parliament
- Mayors and Councillors
- Australian Energy Regulator (AER)
- Australian Energy Market Commission (AEMC)
- Australian Energy Market Operator (AEMO)
- electricity distributors
- large customers
- landowners
- community and environmental groups
- suppliers and contractors
- industry associations
- unions
- Energy Users Association of Australia (EUAA)
- Energy Networks Association (ENA)
- Grid Australia
- other transmission network service providers
- our employees
- media.

Consultation for new infrastructure projects

Before we can construct a new transmission line or substation, Powerlink needs to undertake environmental assessment and community consultation in accordance with a government approved process under the *Sustainable Planning Act 2009* (SPA).

Throughout this Environmental Impact Assessment (EIA) process we consult with community members and stakeholders about the need for the new transmission infrastructure and how we will minimise or mitigate associated environmental, economic and social impacts, and publish an Environmental Impact Statement (EIS). We also share information about the processes we need to undertake to ensure we meet our legislative and regulatory obligations.

Under the SPA, Powerlink obtains planning approval for new electricity infrastructure. Powerlink does this by requesting Ministerial designation of a transmission line route for community infrastructure, before the transmission line can be built. Further information about projects which reached the stage of Ministerial designation in 2011/12 can be found on page 23.

Consultation activities for easement and site acquisition projects are traditionally spread over a number of years. There are a number and variety of activities undertaken in accordance with the consultation required under the SPA. Activities can include: public advertising, media releases, face-to-face communication, newsletters and other written and verbal communication.

Consultation for new infrastructure projects

EIA Consultation activities	Project stage as at 30 June 2012
North Region	
Collinsville Substation	
Consultation for EIS concluded April 2012.	Request for Ministerial designation is currently being prepared.
Central Region	
Broadsound to Lilyvale transmission line	
Consultation commenced May 2012.	Draft EIS is currently being prepared.
Eagle Downs Mine Connection	
Consultation for EIS and designation completed.	Ministerial designation was received in December 2011. Construction is under way.
Galilee Basin Transmission Project (Stage 1 and Stage 2)	
Consultation for EIS and designation for Stage 1 concluded.	Request for Ministerial designation for Stage 1 was submitted in December 2011.
Draft EIS for Stage 2 completed January 2012.	Final EIS for Stage 2 is being prepared.
Northern Bowen Basin (Stage 1 and Stage 2)	
Consultation for EIS and designation for both stages completed.	Request for Ministerial designation for Stage 2 is currently being prepared.

Consultation for new infrastructure projects continued...

EIA Consultation activities	Project stage as at 30 June 2012
South Region	
Cumbboola South Transmission Network (transmission line and switching components)	
Consultation for EIS and designation for transmission line component completed.	Transmission line component – request for Ministerial designation is currently being prepared.
Consultation for EIS and designation for switching station component of the project completed.	Switching station component – Final EIS was published in July 2011. Ministerial designation was received in December 2011. Project construction began May 2012.
Cumbboola to Wandoan South transmission line and Wandoan South Substation and Wandoan South to QGC Woleebee transmission line	
Consultation for EIS and designation completed.	Ministerial designation was received in January 2012. Construction of the transmission line commenced in May 2012.
Cumbboola to Western Downs transmission line and Cumbboola Substation	
Consultation for EIS and designation completed.	Request for Ministerial designation is currently being prepared.
Orana Substation	
Consultation for Draft EIS conducted.	Final EIS is currently being prepared.
Springdale to Blackwall transmission line	
Consultation for EIS and designation completed.	Submitted for Ministerial designation in December 2011.
Wandoan South to Eurombah	
Consultation commenced.	Draft EIS being currently being prepared.
Wandoan South to Wandoan Coal Connection	
Consultation for Draft EIS under way.	Draft EIS under consultation as at 30 June 2012.
South East Region	
Larapinta to Algester transmission line and Larapinta Substation	
Consultation for EIS completed. Consultation for proposed designation under way.	Request for public comment on proposed Ministerial designation was made in June 2012.
Molendinar Substation	
Consultation for Draft EIS under way.	Draft EIS under consultation as at 30 June 2012.

Community Benefits Program

Powerlink's Community Benefits Program gives community groups the opportunity to apply for funding to carry out projects of local importance in areas close to our new transmission lines. The programs facilitate key council and other community stakeholder engagement during transmission line construction, and build positive longer-term relationships for transmission line operation and maintenance activities.

The Community Benefits Program supports community projects that deliver tangible and lasting benefits, and essential facilities and services. Funding provided is separate and in addition to compensation that is paid directly to landowners affected by new transmission line easements.

During 2011/12, we administered two programs providing support for 20 community projects in the Western Downs and South Burnett regions and 16 community projects in the Townsville and Hinchinbrook regions.

Community and environment programs

We continued to deliver on Powerlink's strategic environmental and community-based commitments in 2011/12, with a focus on facilitating productive working relationships with local government, communities and other stakeholders in areas traversed by existing or future transmission assets. Our programs have been successful in building stakeholder understanding of our existing and planned network activities, while supporting practical, community-based initiatives aimed at improving the amenity of areas near our existing and future transmission infrastructure.

CASESTUDY

**TACKLING EROSION
WITH WESTERN DOWNS
LANDOWNERS**

Erosion management workshops were held for more than 60 landowners across Wandoan, Miles and Tara in early 2012, funded by Powerlink's Community Environmental Program in partnership with Western Downs Regional Council.

High-intensity summer storms make erosion in the Western Downs area a major degradation issue. The hands-on workshop, run by the Queensland Murray-Darling Committee (QMDC) and Landcare, has equipped Western Downs landowners with practical skills to better manage erosion and help protect their land.

"The workshops were motivating because they were relevant and we continue to share information through fact sheets and learnings from the monitoring sites established," says QMDC Project Manager Vanessa McDonald.

"This is an investment in the long-term management of erosion across the catchment," she said.

Terry Miller, Powerlink's Manager Network Development, said the workshops were part of the community projects funded by the Community Environment Program.

"The erosion management workshops and other projects funded by the program provide widespread community benefit," Terry said. "They improve the amenity of areas in the vicinity of Powerlink's future high voltage electricity infrastructure in the Western Downs Regional Council area."

GreenWorks

Our GreenWorks program is delivered in partnership with the Lockyer Valley, Somerset, South Burnett and Toowoomba Regional Councils, and Ipswich City Council, and with the involvement of local community members and environmental groups.

The program supports worthwhile environmental projects near future proposed 500 kilovolt transmission lines in Southern Queensland. In 2011/12, GreenWorks committed to support six projects addressing important local environment issues including extending support for erosion control in a hard hit flood area, rehabilitating and conserving high value bushland and wetlands, enhancing koala habitats, and providing environmental and Indigenous bush tucker education.

The six new projects were selected from a field of high calibre applications submitted by local community groups, and are expected to deliver positive environmental benefits while promoting environmental education to younger members of the community. All projects are expected to be completed by June 2013 when the program is scheduled to conclude.

Community Environmental Program

The Community Environmental Program is a strategic initiative that facilitates key council and other local stakeholder engagement by supporting community and environmental projects near Powerlink's future infrastructure in South West Queensland. The program is a partnership with Western Downs Regional Council, with the commitment and involvement of community members and groups.

In July 2011, we announced a round of funding would be allocated to community groups from across the Western Downs for 11 projects that will provide long-term environmental benefits.

The constructive stakeholder relationships forged during the program have assisted in generating community and stakeholder understanding of Powerlink's activities.

Strategic sponsorships

Powerlink has a long-standing tradition of investing within communities in the vicinity of its transmission network, and supporting and building relationships with key stakeholder groups as a part of its corporate citizenship activities. During 2011/12, we supported strategic sponsorships in the fields of community, education, environmental and industry activities. We sponsored specific activities in regional and urban Queensland, undertaken by groups including the Local Government Association of Queensland, Landcare Queensland, Engineers Australia, Energy Users Association of Australia (EUAA), Healthy Waterways, and the Bioelectromagnetics Society.

This year we again undertook a review of our sponsorship guidelines to ensure continued consistency with the State Government framework. We also further reviewed the framework to identify opportunities to take a more strategic approach supporting Powerlink's business objectives and values through our corporate community investments. Strategies to address those improvement opportunities have been identified and will be implemented in the coming year.

Staff support for community organisations

For the third consecutive year, Powerlink and its staff supported the Salvation Army Christmas Appeal in 2011 to assist families throughout Queensland. As part of the appeal, our staff participated in a range of voluntary activities.

This year for the first time, Powerlink offered its employees an opportunity to participate in a corporate giving initiative – the Larapinta Trail Challenge, which is being run in September 2012 in support of the Reach Foundation. Employees were given the opportunity to apply in writing and one person was randomly selected to take part. Powerlink is supporting the employee's participation with in-kind assistance, and Powerlink staff are actively fundraising through a variety of initiatives.

Integrating infrastructure into communities

During 2011/12 Powerlink responded to 342 applications for development and easement co-use, in our role as a referral agency for development applications adjacent to existing transmission lines and easements, under the *Sustainable Planning Act 2009*. We respond to enquiries from landowners and asset operators with regard to their activities near or on our easements and offer planning advice, assistance and tools to planning and development professionals, including mapping of transmission easements in local government planning schemes and easement co-use guidelines.

Our property search service responded to approximately 8,000 enquiries as to whether Powerlink has an interest on a nominated or adjacent property, or if we are investigating a new line route which may affect the property.

Electric and Magnetic Fields

Electric and magnetic fields (EMF) are found everywhere electricity or electrical equipment is being used – including in the home, office, work sites and around transmission lines. Like other transmission authorities in Australia, Powerlink takes advice about EMF from recognised national and international health authorities. Powerlink continues as a member of the Energy Networks Associations (ENA) Committee that monitors and compiles up-to-date information about EMF on behalf of all electricity network businesses in Australia.

In Australia, the Federal Government agency responsible for EMF regulation is the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). ARPANSA has concluded that "scientific evidence does not firmly establish that exposure to 50Hz EMFs found around the home, the office or near power lines is a hazard to human health". (Source: ARPANSA fact sheet Electricity and Health.) Nevertheless, Powerlink follows the ENA EMF policy which includes applying a 'prudent avoidance' approach when designing and siting new electricity network infrastructure. This includes trying to locate new transmission assets away from homes, schools and community facilities where it is practical and cost effective to do so.

We continue to provide information from recognised public health authorities to interested communities and address EMF in the Environmental Impact Assessment (EIA) undertaken for any new Powerlink asset. We also carry out EMF readings at the request of landowners. EMF readings at the boundary of a typical Powerlink easement are generally similar to those people would come across in their daily activities at home or work.

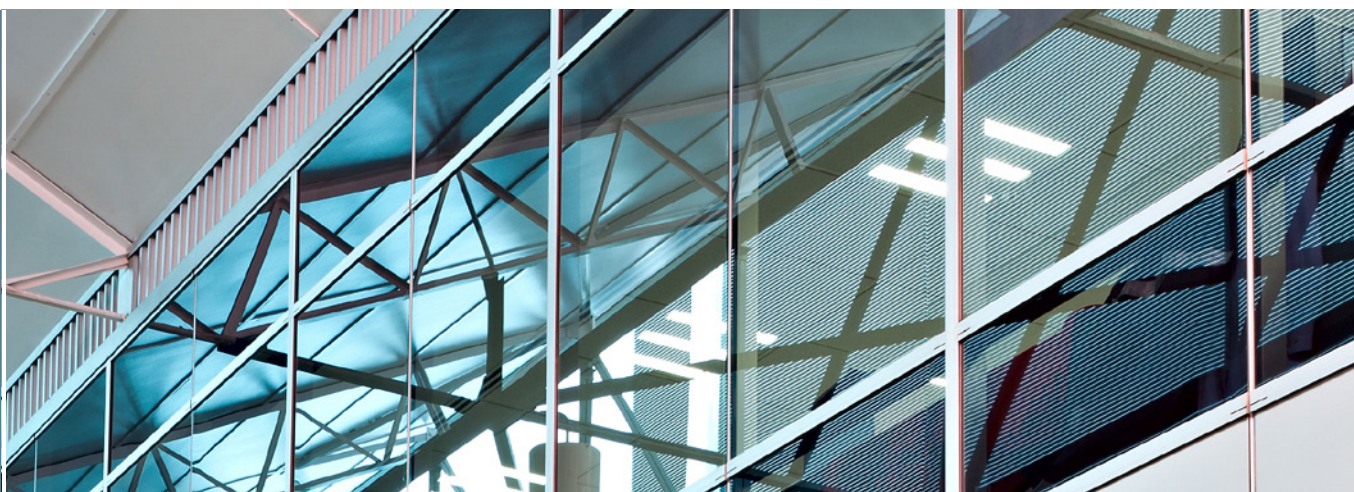
LOOKING FORWARD

In 2012/13 and beyond, we will:

- review our corporate citizenship activities and stakeholder interests, to identify opportunities to improve in our corporate citizenship strategies
- identify and implement improved stakeholder relations strategies.



CORPORATE GOVERNANCE



Corporate Governance in Powerlink

Powerlink Queensland is a corporation established under the *Government Owned Corporations Act 1993* (GOC Act) and is a registered public company under the *Corporations Act 2001*. The Board of Directors has the overall responsibility for corporate governance of the corporation.

Directors are appointed by the Government and report to the nominated shareholding Ministers of the Queensland Government. Powerlink's two shareholding Ministers are:

- Treasurer and Minister for Trade
- Minister for Energy and Water Supply.

The Queensland Government published its *Corporate Governance Guidelines for Government Owned Corporations* (GOC), which includes the *Code of Conduct and Conflicts of Interest Best Practice Guide for Government Owned Corporations* (Guidelines).

The Guidelines outline the expectations of shareholding Ministers and describe a set of comprehensive high-quality corporate governance principles, and proper disclosure and reporting arrangements for all stakeholders, which are appropriate to Government Owned Corporations (GOCs). There were no revisions made to the Guidelines that required changes to Powerlink's governance arrangements for 2011/12.

The Guidelines have been prepared with regard to the:

- Australian Stock Exchange (ASX) Corporate Governance Council's Corporate Governance Principles and Recommendations 2nd Edition (ASX Principles)
- Auditor-General's Report No. 2 2002-2003 – Review of Corporate Governance and Risk Management at Government Owned Corporations
- Auditor-General's Report No. 10 2002-2003 – Review of Management's Assessment of Fraud Control Risks and Associated Plans and Procedures
- Organisation for Economic Co-operation and Development (OECD) Principles of Corporate Governance
- Crime and Misconduct Commission (Queensland) and Independent Commission Against Corruption (New South Wales) – Managing Conflicts of Interest in the Public Sector – Guidelines and Toolkit.

Corporate Governance in Powerlink

Shareholding Ministers

Our shareholders

Powerlink has two shareholders who hold the shares on behalf of the State of Queensland. Our shareholding Ministers, as at 30 June 2012, were:

- The Honourable Tim Nicholls MP, Treasurer and Minister for Trade, holding 50 per cent of the A class voting shares and 100 percent of the B class non-voting shares.
- The Honourable Mark McArdle MP, Minister for Energy and Water Supply, holding 50 per cent of the A class voting shares.

Powerlink Queensland Board

Key accountabilities of the Board

The Powerlink Board establishes the overall corporate governance of the corporation and its subsidiary companies, and is responsible for:

- setting the corporation's values and standards of conduct, and ensuring that these are observed
- providing leadership of the corporation within a framework of prudent and effective controls
- setting the corporation's direction, strategies and financial objectives, and ensuring that all necessary resources are available for the business to meet its objectives
- approving the Statement of Corporate Intent (SCI)
- monitoring financial outcomes and the integrity of reporting; in particular, approving annual budgets and longer-term strategic and business plans.
- monitoring management's performance and implementation of strategy, and ensuring appropriate processes for risk assessment, management and internal controls are in place
- ensuring an effective system of corporate governance exists
- disclosing to shareholding Ministers relevant information on the operations, financial performance and financial position of the corporation and its subsidiaries
- providing of formal delegations of authority to the Chief Executive, management and other specified officers.

Membership and meetings

- All Directors, including the Chairman, are independent, non-executive Directors appointed by the Governor in Council in accordance with the GOC Act.
- In 2011/12, Powerlink held 11 meetings of Directors. The attendance record of the Directors at meetings of the Board is presented in the Directors' Report section in the Annual Report.

Board Committees

Audit, Risk and Compliance Committee

Key Accountabilities

The Audit, Risk and Compliance Committee assists the Board in fulfilling its responsibilities in relation to:

- financial integrity
- laws, regulations and codes of conduct
- business risk management
- audit effectiveness.

Human Resources and Remuneration Committee

Key Accountabilities

The HR and Remuneration Committee assists the Board in fulfilling its employer responsibilities by reviewing and reporting to the Board on policy and its application relating to work, health and safety, organisational design, employee remuneration and performance, and workplace relations.

Chief Executive

Management Committees

Corporate governance in Powerlink is managed through the policies and practices adopted by the Board. The corporation commits to those governance policies and practices to ensure appropriate accountability and control systems are in place to achieve the business outcomes of the corporation and to encourage and enhance sustainable business performance. This section of the Annual Report outlines Powerlink's corporate governance arrangements and describes its reporting and disclosure practices.

The Board

The Powerlink Board is responsible for the overall corporate governance of the corporation and its subsidiary companies and setting the organisation's strategic direction articulated in Powerlink's Corporate Plan and SCL.

The Board has regard to the Guidelines in the overall scope and application of corporate governance within Powerlink. The Board sets goals for management and establishes the policies and operational framework for the corporation. It monitors performance of the corporation, its Chief Executive, senior management and staff through regular direct reporting and via established committees.

Details relating to Powerlink Directors, Board Committee composition, and meetings in 2011/12 are set out in the Directors' Report.

Corporate Governance Guidelines for GOCs – Queensland Government

Powerlink's corporate governance processes are consistent with Corporate Governance Guidelines for Government Owned Corporations issued by the Queensland Government. Powerlink's corporate governance arrangements in reference to the Guidelines are:

Principle 1: Foundations of management and oversight

The Board Charter is publicly available on Powerlink's website. The Charter, established by the Board, describes the Board's functions and responsibilities, which are to:

- set the corporation's values and standards of conduct
- provide leadership of the corporation within a framework of prudent and effective controls
- provide guidance and set the corporation's direction, and develop strategies and objectives
- set financial objectives and ensure that all necessary resources are available for the business to meet its objectives
- monitor implementation of strategies and performance
- inform shareholders of key issues, major developments and performance
- ensure an effective system for compliance and risk management is in place.

The Board and management work together to establish and maintain a legal and ethical environment and framework that ensures accountability.

The Powerlink Board undertook its annual evaluation of the performance of the Chief Executive against pre-agreed business and individual targets. The Chief Executive evaluated the annual performance of each senior executive against pre-agreed business and individual targets, and submitted the outcomes of the evaluation to the Board for its consideration and approval.

The Board Handbook is a key resource identifying the major reference documents that are relevant and will assist the Powerlink Directors in undertaking their roles and responsibilities. The Handbook serves as both an induction and an ongoing reference guide for Directors, and is updated annually by the Company Secretary.

New Directors attend induction sessions which provide an overview of Powerlink's operations and policies, and information on the Board and Committee functions. The induction process assists the Directors to understand their roles and responsibilities.

Principle 2: Structure the Board to add value

At 30 June 2012, the Board comprised six independent non-executive Directors. All Directors are appointed by the Governor in Council in accordance with the GOC Act. There were a number of changes to Powerlink's Directors in 2011/12:

- Mr David Harrison
 - appointed as Director on 1 October 2011
 - appointed as Powerlink Chairman from 1 January 2012
 - resigned as Powerlink Chairman and Director on 25 May 2012
- Ms Julie Martin
 - appointed as Director on 1 October 2011
- Mr Stephen Rochester
 - appointed as Powerlink Chairman on 31 May 2012
- Ms Else Shepherd (Chairman)
 - appointment term finished on 31 December 2011

Details of the skills and experience of each current Director are presented separately in the Corporate Governance section of this Annual Report. The Directors' Report includes a listing of the terms of office and appointment date for each Director.

In the event of Directors requiring independent professional advice, it is provided at the expense of Powerlink. All Directors, including the Chairman, continue to exercise independent judgement in the conduct of their responsibilities.

The Board continually assesses the ongoing independence of the Directors. All Directors are required to disclose any potential conflicts of interest at the commencement of each Board meeting. Any such conflicts are recorded in the minutes of the meeting.

All Directors during 2011/12 were considered to be independent. No Directors are considered to have material supplier or customer relationships with the corporation. A predetermined specific materiality threshold has not been established by the Board. The Board's assessment of materiality is undertaken on a case-by-case basis taking into consideration the relevant facts and circumstances that may impact Director independence.

The Board annually reviews the individual and collective performance of the Directors and the Board, as a self-assessment by the Directors, to assure itself that it operates in accordance with the Board Charter and the discharge of its responsibilities. A key element in this evaluation is the consideration of the continuing education and professional development of Directors.

The Board also formally considers its information requirements on an annual basis to ensure it is receiving appropriate information to enable it to effectively carry out its responsibilities.

The Board undertook its annual review for 2011/12 and concluded that it is fulfilling its role with no identified gaps in its performance, and that there was good interaction and relations with both shareholding Ministers and Powerlink management.

A structured internal process is also in place to review and evaluate the performance of Board Committees. Each Board Committee submits an Annual Report of its activities to the Board.

Principle 3: Promote ethical and responsible decision making

The Board has a Code of Conduct that guides Directors in carrying out their duties and responsibilities, sets out expected standards of behaviour, and includes policies relating to conflict of interest issues. A summary of this document is available on the Powerlink website.

The Board has developed a Share Trading Policy which is available on the Powerlink website. The primary purpose of this policy is to mitigate the risk of inappropriate trading of shares by Powerlink employees, managers and Directors.

Each Director has a responsibility to declare any related interests, which are appropriately recorded and assessed for materiality on a case-by-case basis. Where appropriate, the Director does not participate in the Board's consideration of the interests disclosed. No Directors are considered to have material supplier or customer relationships with the corporation.

All Powerlink Directors and management are expected to act with integrity and strive at all times to enhance the reputation and performance of the corporation.

Principle 4: Safeguard integrity in financial reporting

The Board has established two Board Committees to assist in fulfilling its corporate governance responsibilities – the Powerlink Audit, Risk and Compliance Committee and the Powerlink Human Resources and Remuneration Committee.

These committees have documented mandates that are reviewed on a regular basis. The membership of both committees consists of non-executive Directors. Details of committee members at 30 June 2012, number of meetings during the year and attendance are presented in the Directors' Report.

Audit, Risk and Compliance Committee

Chairman	Ken Howard
Members	Christina Sutherland, Julie Martin and Stephen Rochester ¹

¹ Mr David Harrison was a member of the Committee until his resignation on 25 May 2012.

The name of the Committee was amended to add the term 'risk' to highlight risk as one of the key responsibilities of the Committee. The Powerlink Audit, Risk and Compliance Committee endorses the corporation's internal audit program and risk management profile, and provides a link between the corporation's auditors (internal and external) and the Board.

The Committee is responsible for considering the annual statutory financial statements for subsequent approval by the Board. The Chief Executive and Chief Financial Officer are required to provide an annual declaration that the financial statements represent a true and fair view, and are in accordance with accounting standards.

The Committee also assesses and reports on issues relating to financial integrity, corporate processes for compliance with laws and regulations, codes of conduct, business risk management and audit effectiveness.

Human Resources and Remuneration Committee

Chairman	Walter Threlfall
Members	Julie Beeby, Christina Sutherland and Stephen Rochester ¹

¹ Ms Else Shepherd was a member of the Committee until her term as Chairman of the Powerlink Board expired on 31 December 2011. Mr David Harrison was a member of the Committee until his resignation on 25 May 2012.

The name of the Committee was amended to add the term 'Human Resources' and the terms of reference amended to reflect the Committee's expanded scope. The Human Resources and Remuneration Committee assists the Board in fulfilling its employer responsibilities by reviewing and reporting to the Board on policy and its application relating to work, health and safety, organisational design, employee remuneration and performance, and workplace relations.

Principle 5: Make timely and balanced disclosures

Powerlink has established processes to ensure it meets its disclosure and reporting obligations, including those to shareholding Ministers. Powerlink's reporting arrangements include the Powerlink Annual and (half-yearly) Interim Reports, Forecast Report, regulatory reports, Powerlink website and other public disclosures.

Principle 6: Respect the rights of shareholders

The Powerlink Board has a communication strategy to promote effective communication with shareholding Ministers. The Board aims to ensure that shareholding Ministers are informed of all major developments affecting the corporation's state of affairs. This includes regular meetings with shareholding Ministers' representatives and departments, and information communicated formally through quarterly progress reports and the Annual Report.

Each year Powerlink prepares a five-year Corporate Plan and SCI, reflecting the outcomes of a comprehensive strategic and business planning process involving the Board and the Executive Leadership Team. Both documents are presented to shareholding Ministers.

Quarterly progress reports on the performance against the SCI are prepared by the Board for shareholding Ministers.

Principle 7: Recognise and manage risk

Risk assessment processes are inherent within Powerlink's business. Powerlink has an approved Risk Management Charter that provides an overall framework and structure for the management of risk within Powerlink. Management regularly reports to the Board on key business risks.

A Management Committee structure operates in parallel with the Board Committees to address issues of work, health and safety, environmental management, security, and corporate emergency response. Each of these committees submits reports to the Audit, Risk and Compliance Committee through the Chief Executive, and work, health and safety reports are also presented to the Human Resources and Remuneration Committee through the Chief Executive.

The Safety Steering Committee develops and directs Powerlink's workplace health and safety management practices, and also ensures that Powerlink complies with relevant workplace health and safety legislation.

The Environmental Steering Committee develops appropriate strategic responses to environmental issues, as well as ensuring compliance with Powerlink policies and relevant environmental legislation.

The Security Steering Committee provides guidance in the development and approval of the Powerlink Security Plan. The Committee reviews security incidents and considers necessary amendments to the plan in response to these events.

The Corporate Emergency Response Committee develops appropriate strategic responses to corporate emergencies and is responsible for maintaining corporate emergency management documentation.

The corporation's internal control framework is designed to provide reasonable assurance regarding the achievement of the corporation's objectives. Implicit within this framework is the prevention of fraud (including corruption). Powerlink has a range of strategies and approaches that provides an effective fraud control framework that is closely integrated with the corporation's enterprise information management systems.

Powerlink's Employee Code of Conduct sets out how all people should conduct themselves while working at Powerlink. It aims to ensure that Powerlink employees perform their work cost effectively, efficiently, cooperatively, ethically and with respect for others.

Principle 8: Remunerate fairly and responsibly

Powerlink seeks to develop individuals to attain the skills and motivation necessary to excel in an environment of high achievement. High priority is given to selecting the best person for the job at all levels in the corporation and investing in that person's potential through further training and development.

The Powerlink Board has established a Human Resources and Remuneration Committee whose membership and responsibilities are presented above.

Powerlink's Remuneration Policy is designed to:

- attract and retain talented people with the skills to plan, develop, operate and maintain a large electricity transmission network
- reward and provide incentives for exceeding the key business performance targets.

The Remuneration Policy provides for performance-based payments for all employees, with the payments directly linked to the performance of the individual or small teams against pre-agreed performance targets and to the performance of the business.

The Working at Powerlink 2011 Union Collective Agreement came into operation on 30 March 2012. The Agreement provides for Powerlink and its employees to respond to changes in an environment of targets set by our owners and regulator. It has a focus to continue to develop Powerlink into a competitive and satisfying place to work. It recognises that the economic health of the company and the wellbeing of all employees depend upon the success of a shared commitment by all parties to this Agreement.

Award employees may be eligible for performance-based payments that are delivered as gainsharing and performance pay. Gainsharing is a payment subject to Board approval. The gainsharing payment is made subject to the corporation's profitability target being exceeded and key organisation performance measures being achieved.

Performance pay is based on individual or small team performance targets, which are reviewed half yearly and rated at the end of the annual performance cycle. The individual performance targets are aligned with the overall business targets of the corporation.

Managers and senior staff are employed on management contracts. Powerlink's remuneration policy for contract employees uses the concept of Total Fixed Remuneration (TFR), which includes employer superannuation contributions. In order to promote management focus, the policy provides for performance-based payments dependent on the performance against pre-agreed business and individual targets. The TFR level is reviewed annually based on consideration of economic and individual capability factors.

Following the announcement of the retirement of incumbent Chief Executive Mr Gordon Jardine, the Powerlink Board conducted an extensive external exercise and concluded the recruitment of a new Chief Executive. Ms Merryn York commenced in the position of Chief Executive on 23 July 2011.

Shareholding Minister directions

There were no shareholding Minister directions in 2011/12.

Amendments to Statement of Corporate Intent (SCI)

There were no amendments to the Powerlink 2011/12 SCI.

Corporate entertainment and hospitality

The GOC Corporate Entertainment and Hospitality Guidelines establish reporting requirements for GOCs. Powerlink's corporate entertainment and hospitality expenditure for 2011/12 totalled \$126,521. The table below presents individual events above \$5,000.

Event	Date	Cost
Staff recognition – Quarter Century Club	Quarter 2 – 2011/12	\$9,083
Staff recognition – Network Field Services	Quarter 2 – 2011/12	\$8,363
Staff recognition – Engineering and Projects	Quarter 2 – 2011/12	\$17,324
Staff recognition – Operations	Quarter 2 – 2011/12	\$9,745

BOARD OF DIRECTORS

**STEPHEN ROCHESTER***B.Ec, FCPA, MAICD, FFTP***CHAIRMAN OF THE BOARD***(Appointed May 2012)*

Stephen is an established leader in public sector financing, the banking and finance industry, and the global financial markets, with a career spanning more than 35 years. He has been involved in all aspects of the provision of corporate treasury services to the Queensland public sector, as well as the establishment and operation of domestic and offshore borrowing programs, the development and implementation of liability management strategies, and the provision of infrastructure funding and financial risk management services.

Stephen held the position of Queensland Treasury Corporation's (QTC) inaugural Chief Executive for 22 years and also served as QTC's Chairman for two years. Stephen is currently a Director of Stanwell Corporation Limited and has previously held the positions of Chief Executive of Sun Retail, and director of Tarong Energy Corporation Limited.

Stephen is a member of the Powerlink Board's Audit, Risk and Compliance Committee and the Human Resources and Remuneration Committee.

**JULIE BEEBY***BSc (Hons I), PhD (Physical Chemistry), MBA, GAICD***BOARD MEMBER***(Appointed 2008)*

Julie has worked in the minerals and petroleum industries in Australia for 24 years and her career has included work for several major Australian and US resources companies. In 2010, she was appointed to the role of Chief Executive Officer of WestSide Corporation, an ASX-listed, Queensland-based coal seam gas company.

Julie commenced her career in mineral processing research, and went on to develop her project and business skills through a succession of successful senior management positions in chemical plant, coal seam gas, explosives and mining areas.

She is a member of the Powerlink Board's Human Resources and Remuneration Committee.

**KEN HOWARD***CFA, LLB, BEcon, JP, MSAA, GAICD***BOARD MEMBER***(Appointed 2007)*

Ken is the Responsible Executive (ASX) and Responsible Manager (Australian Financial Services Licence) for the Brisbane Dealing Room of RBS Morgans. Ken advises private clients on the full range of financial planning and investment matters with a particular focus on shares traded on the Australian Stock Exchange.

Prior to joining the Powerlink Board of Directors, Ken was a Director of Energex Retail Pty Ltd.

Ken is a member of the CFA Society of Sydney, the Financial Services Institute of Australia, the Stockbrokers Association of Australia and the Australian Institute of Company Directors. From 1991 to 1998 Ken was an Infantry Officer in the Australian Army Reserve. Ken is currently the Treasurer for the Sunnybank Anglican Child Care Centre and the Secretary for the MacGregor Outside School Hours Care Centre.

Ken is the Chairman of the Powerlink Board's Audit, Risk and Compliance Committee.



JULIE MARTIN
BE

BOARD MEMBER
(Appointed 2011)

Julie has 16 years' experience as an electrical engineer, having played a key role in a variety of large-scale infrastructure projects in Queensland. She is currently the Senior Project Electrical Engineer with Thiess for the QCLNG Upstream Early Works projects, primarily responsible for the delivery of QGC's high voltage substations.

In 2008 Julie won the Women in Community/Public Sector – Engineering category of the Smart Women – Smart State Awards for her work in the TrackStar Alliance program to deliver \$700 million worth of rail projects in South East Queensland.

Julie is a Director of Lourdes Hill College.

She is a member of the Powerlink Board's Audit, Risk and Compliance Committee.



CHRISTINA SUTHERLAND
BLaw, MAICD

BOARD MEMBER
(Appointed 2001)

Christina is a solicitor of the Supreme Court of Queensland and the High Court of Australia. She was admitted as a solicitor in 1989 after serving two years of articles, and has over 20 years' experience in providing legal advice/ services to many clients.

Christina has represented insurers, commercial and corporate clients and has acted for clients in employment and industrial matters. She has a strong interest in occupational health and safety matters.

Christina is a Director of Surf Life Saving Queensland and a member of the Board's Risk Sub Committee and HR Sub Committee.

She is also a Legal Practitioner Director of ICON Law.

Christina is a member of the Powerlink Board's Audit, Risk and Compliance Committee and Human Resources and Remuneration Committee.



WALTER THRELFALL

BOARD MEMBER
(Appointed 1994)

In 2006, Walter retired as Assistant State Secretary of the Electrical Trades Union (ETU) of Australia – Queensland Branch, a position he had held since 1983. In this role, Walter represented the interests of ETU members in northern and western Queensland.

Early in his career, Walter worked as an electrical fitter and mechanic in the steel manufacturing, electrical contracting and mining industries.

Walter is Chairman of the Townsville Regional Group Apprenticeship Scheme.

Walter is the Chairman of the Powerlink Board's Human Resources and Remuneration Committee.

EXECUTIVE LEADERSHIP TEAM

**MERRYN YORK**

*BE(Hons), MEngSc, Grad Cert AppLaw,
FIEAust, RPEQ*

CHIEF EXECUTIVE

As Chief Executive Merryn has more than 20 years' experience in the Queensland electricity industry.

Merryn's career encompasses experience in strategic business development and asset management to optimise the long-term return on investment, network planning, regulatory affairs, customer management and strategic development of the transmission network. She was named in Engineers Australia's 2012 list of Australia's Top 100 most influential engineers.

Merryn is a Director of ElectraNet SA.

**SIMON BARTLETT AM**

*BE(Hons), BSc, FIEAust, FAICD,
FTSE CPEng, RPEQ*

CHIEF OPERATING OFFICER

In his role as Chief Operating Officer, Simon is responsible for managing all aspects of Powerlink's transmission network to ensure that our transmission services meet Queensland's electricity needs reliably and cost effectively.

Simon is also Chairman of the Australian Power Institute, a Director of ElectraNet SA, Deputy Chairman of the Australian National Committee (ANC) CIGRE (International Council on Large Electric Systems), and a member of AEMC's Reliability Panel.

In 2012, Simon was presented with an Order of Australia for service to engineering, particularly to the electricity supply industry in Queensland, and to professional organisations. Simon was presented with the National Professional Engineer of the Year award by Engineers Australia in 2009.

Simon has more than 38 years' experience in electricity generation and transmission, including roles in Australia and overseas in planning, design, operations and strategic asset management.

**STEWART BELL**

BEng, PhD, MBA, CEng, MIET

MANAGER REVENUE RESET

Stewart led the project to develop Powerlink's revenue proposal for the period 2013–2017. The revenue reset process is a once-in-five-year exercise which sets more than 90 per cent of Powerlink's revenue. The Australian Energy Regulator published Powerlink's regulatory determination on 30 April 2012.

Stewart has more than 15 years' experience in the electricity industry including management roles in operations, design, project delivery and procurement.



MAURIE BRENNAN

BBus, MBA, CPA, FAICD

CHIEF FINANCIAL OFFICER

Maurie has provided strategic financial and commercial advice to public sector organisations in Queensland's electricity industry since 1979.

At Powerlink, Maurie manages all finance, tax, treasury, business planning and investment analysis, corporate services, internal audit, insurance, legal and risk services, and reporting to shareholding Ministers. In addition, Maurie is Powerlink's Company Secretary.

Maurie is a Director of ElectraNet SA, and member of the ElectraNet SA Treasury Committee and ElectraNet SA Audit and Compliance Committee.



RAY DI MARCO

BE(Hons), MBA

MANAGER OPERATIONS

In his role as Manager Operations, Ray leads Powerlink's Operations Business Unit, which delivers a range of specialist services including power system operations, asset monitoring, information technology, telecommunications, oil testing, and research and development to Powerlink and other Australian and international clients.

Prior to joining Powerlink, Ray held Chief Technology Officer and Executive Management roles in the utilities, gambling and markets sectors.



PAUL HARDCASTLE

MBA, Assoc Dip Eng (Elec)

MANAGER NETWORK FIELD SERVICES (ACTING)

Paul manages Network Field Services work for Powerlink's transmission network in Southern Queensland, with the objectives of maximising system reliability and minimising outage restoration times at optimal cost.

Within the electricity distribution and transmission field, Paul has specialised in the maintenance and installation of substation plant and equipment, construction and project management.

With more than 25 years of experience in the electricity industry, Paul's career includes experience in development and management of business systems, asset management, resource management, logistics, and works management for field services relating to substation and transmission line assets.

EXECUTIVE LEADERSHIP TEAM *continued...***CHRIS HAZZARD**

*BE, Grad Bus Mgt, CEng, FIEAust,
FAICD, RPEQ*

**MANAGER PROCUREMENT
(ACTING)**

As Manager Procurement, Chris has responsibility for setting contractual terms and conditions, sourcing suppliers, determining market strategies and managing the supply chain and the commercial administration of supply arrangements for Powerlink's capital projects and operations.

Chris has more than 30 years' experience in the electricity industry, including management roles in asset management, operations, design, and project delivery.

**TERRY MILLER**

BE, CPEng, RPEQ

**MANAGER NETWORK
DEVELOPMENT**

As Manager Network Development, Terry is responsible for planning Powerlink's future network investments and timely acquisition of transmission easements to meet future development needs.

Planning for future investments entails forecasting future network demand, analysing network capabilities into the future and recommending augmentation investment options to ensure continued reliable network performance.

Acquisition of easements and substation sites requires detailed assessment of route options, environmental, social, and cost impacts which in turn necessitate extensive consultation with property owners and other stakeholders.

With more than about 40 years of experience in the Queensland electricity industry, Terry's career has included experience in strategic business development, asset management, network planning, regulatory affairs, customer management, substation design, and distribution network design.

**GARRY MULHERIN**

BE

**MANAGER NETWORK
STRATEGY AND
PERFORMANCE**

As Manager Network Strategy and Performance, Garry's responsibilities include strategic business development and asset management to optimise the long-term return on Powerlink's investments in a way that meets the emerging expectations of our stakeholders, including our shareholders, customers, National Electricity Market (NEM) participants, the Australian Energy Regulator (AER), and the community.

More than 30 years of experience in the electricity industry has provided Garry with a depth of experience in electricity distribution and transmission networks, including management of key business areas and organisational change initiatives. Garry has also led quality improvement projects in environmental processes, engineering design, project management and overall cost efficiency.



MICHELLE PALMER
*BComms, MA, GCertBusAdmin,
GAICD, MPRIA*

MANAGER CORPORATE COMMUNICATIONS

As Manager Corporate Communications, Michelle is responsible for Powerlink's public relations policy and strategy, corporate communications, media liaison, government relations and internal communication.

The Corporate Communications Business Unit has responsibility for managing Powerlink's corporate citizenship approach and initiatives.

Michelle has provided strategic communications counsel within the Queensland electricity industry for more than 13 years. She is also a non-executive director at Greening Australia Queensland.



JULIA SMITH
B App Sc, BBus, GCCM, GAICD

MANAGER HUMAN RESOURCES AND DEVELOPMENT

Julia has responsibility for the development and implementation of Powerlink's effective workplace and industrial relations, occupational health and safety, electrical safety, employee development, equal employment opportunity, technical and training coordination, organisational development, and employment systems and services.

Julia manages Powerlink's continuous improvement initiatives that ensure we have a workplace culture that is right for our people and for our business. She is also coordinating initiatives to ensure Powerlink has the right people and capabilities necessary to deliver our current and future business targets.

Prior to joining Powerlink, Julia held senior human resource management roles in fast moving consumer goods, financial services and infrastructure sectors.



ROLAND VITELLI
BE, Assoc Dip Eng (Elec), FIEAust

MANAGER ENGINEERING

Roland manages the Engineering Business Unit which is responsible for the delivery of capital works and refurbishment projects throughout Queensland including the provision of technical services within Powerlink. He is also responsible for leading the organisation's development, assessment, and implementation of new technologies to enhance network operability, availability and performance.

Roland returned to Powerlink after over 20 years with a global electrical technology company where he gained extensive experience in complete turnkey system integration of transmission systems, transmission and distribution product manufacture and development of new technologies. He has worked in Europe as well as South East Asia.

Roland has strong commercial, safety and extensive project delivery experience. His engineering career has included experience in various aspects of electricity transmission.

STATISTICAL SUMMARY

Transmission lines and underground cables

Added in 2011/12

Voltage	Transmission line		Underground cable	
	Route km	Circuit km	Route km	Circuit km
330kV	0	0	0	0
275kV	42	71	0	0
132kV	-11	-104*	0	0
110kV	0	0	0	0
66kV**	0	0	0	0
Total	31	-33	0	0

* A double circuit line was decommissioned. A new single circuit line was commissioned.

** Equal to or less than 66kV.

Energy output and delivery

2011/12	2010/11	2009/10	2008/09	2007/08
Energy flowing into the grid (GWh)				
47,988	48,020	49,593	49,104	48,576
Energy delivered to customers (GWh)				
46,246	46,216	47,825	47,303	46,125
Peak maximum demand (MW)				
8,707	8,836	8,891	8,677	8,082

Circuit breakers

Added in 2011/12

Voltage	Circuit breakers	Location
330kV	3	Middle Ridge, Millmerran
275kV	35	Calliope River, Raglan, Belmont, Western Downs, Braemar
132kV	20	Goonyella Riverside, Blackwater, Palmwoods, Tully, Stanwell, Ingham South, Cardwell, Burton Downs
110kV	6	Belmont, Mudgeeraba, Ashgrove West, Molendinar (Swanbank A decommissioned)
66kV*	0	
Total	64	

* Equal to or less than 66kV.

Substations/switching stations and transformers

Added in 2011/12

Voltage	Substations		Transformers		
	Total number	Location	Total number	Total Rating (MVA)	Location
330kV			0	0	
275kV	3	Western Downs, Raglan, Calliope River	0	130 increase	Gin Gin transformer replacement with increased rating.
132kV	1	Goonyella Riverside	0	0	
110kV	0		1	100	Molendinar
Total	4		1	230	

* A double circuit line was decommissioned. A new single circuit line was commissioned. ** equal to or less than 66kV.

Capacitor bank, shunt reactors and Static VAR Compensators

Added in 2011/12

Voltage	Capacitor Banks		Reactors		SVCs		Location
	Total	MVAR	Total	MVAR	Total	MVAR	
330kV	3	440	0	0	0	0	Middle Ridge, Millmerran
275kV	2	280	0	0	0	0	
132kV	0	0	0	0	0	0	Belmont
110kV	-2	-100	0	0	0	0	Belmont decommissioned
Total	3	620	0	0	0	0	

Substations/switching stations and communication sites
As at 30 June 2012

Voltage	Substations	Cable transition sites	Communication sites
330kV	4		
275kV	37	3*	
132kV	62	3	
110kV	15	3	
66kV	0	1	
Total	118	10	91

* Two of these cable transition sites are energised at 110kV.

Transformers
As at 30 June 2012

Voltage	Total number	Total rating MVA
330kV	5	4,975
275kV	68	18,385
132kV	86	5,949
110kV	28	2,210
Total	187	31,519

* Two of these cable transition sites are energised at 110kV.

Circuit breakers
As at 30 June 2012

Voltage	Total number
330kV	31
275kV	435
132kV	444
110kV	284
66kV*	28
Total	1,222

* equal to or less than 66kV.

Capacitor bank, shunt reactors and Static VAR Compensators
As at 30 June 2012

Voltage	Capacitor Banks		Reactors		SVCs	
	Total	MVA	Total	MVA	Total	MVA
330kV	3	440	4	144	0	0
275kV	28	3,880	16	711	8	2,510
132kV	26	1,185	0	0	11	1,081
110kV	32	1,750	0	0	0	0
110kV	5	96	5	114	0	0
Total	94	7,351	25	969	19	3,591

* equal to or less than 66kV.

Five year history of transmission lines and underground cables
As at 30 June 2012

Voltage	2012		2011		2010		2009		2008	
	Total	MVA	Total	MVA	Total	MVA	Total	MVA	Total	MVA
Transmission lines										
330kV	347	691	347	691	347	691	347	691	347	691
275kV	6,032	8,458	5,990	8,387	5,819	8,037	5,548	7,495	5,335	7,068
132kV	2,785	4,364	2,796	4,468	2,769	4,405	2,816	4,488	2,802	4,480
110kV	238	416	238	416	238	416	238	416	238	416
66kV*	1	1	1	1	1	1	1	1	1	1
Total lines	9,403	13,930	9,372	13,963	9,174	13,550	8,950	13,091	8,723	12,656
Underground cables										
275kV	10	10	10	10	10	10	2	5	2	5
132kV	4	4	4	4	4	4	1	2	1	2
110kV	8	8	8	8	8	8	3	7	3	7
66kV*	1	1	1	1	1	1	1	1	1	1
Total cables	23	23	23	23	23	23	7	15	7	15
Total	9,426	13,953	9,395	13,986	9,197	13,573	8,957	13,106	8,730	12,671

Note: all cables located inside substations are excluded. ^ As constructed voltages. * equal to or less than 66kV.

INDEX

0-9	500 kilovolt transmission network	33
A	Annual Planning Report (APR)	9, 21, 33
	Asia Pacific Liquefied Natural Gas (APLNG)	23, 31, 32
	Australian Electricity Supply Industry (ESI) Skills Passport	12
	Australian Energy Market Commission (AEMC)	5, 18, 45, 57
	Australian Energy Market Operator (AEMO)	2, 5, 15, 16, 19, 24, 45
	Australian Energy Regulator (AER)	2, 3, 4, 5, 6, 8, 9, 15, 16, 17, 18, 21, 22, 24, 27, 41, 45
B	BHP Billiton Mitsubishi Alliance (BMA)	31
	Bowen Basin	23, 27, 32, 45
C	capital works	3, 6, 7, 9, 21, 22, 24, 26, 33, 60
	CIGRE (International Council on Large Electric Systems)	38, 57
	climate change	23
	community and environment programs	46
	Community Benefits Program	46
	Community Environmental Program	47
	Cultural Heritage	41, 43
	customer connection	7, 10, 18, 25, 31, 32
	cyclone	16
D	Department of Environment and Resource Management (DERM)	39
	dividend	7
E	Eagle Downs Coal Management Pty Ltd (EDCM)	31
	easement co-use	44, 48
	easements	10, 13, 19, 23, 24, 25, 27, 33, 39, 41, 43, 44, 45, 46, 48, 59
	Ecofund	42
	ElectraNet	4, 57, 58
	Electric and Magnetic Fields (EMF)	48
	Electrical Safety Management System	12
	electricity demand	3, 4, 8, 9, 21, 25, 26, 27, 29, 30, 33, 41
	electricity pricing	15
	electricity supply costs	4
	emergency response	24, 53
	Emergency Services	22
	employee engagement	34, 38
	Energex	3, 15, 55

	energy efficiency	42
	Energy Management System (EMS)	19, 39, 43,
	Energy Networks Association (ENA)	18, 40, 45, 48
	Energy Users Association (EVAA)	17, 45
	Enterprise Agreement	35
	Environmental Management Plan (EMP)	26
	Environmental Management System (EMS)	39
	Environmental Work Plan (EWP)	40, 41, 43
	Ergon Energy	3, 15
	Essential Energy	3, 15
F	financial indicators	6
	flood	16, 23, 24, 47
G	Galilee Basin	23, 32, 45
	Government Owned Corporation (GOC)	4, 15, 49, 50, 51, 54
	greenhouse	39, 40, 41
	GreenWorks	47
	Grid Australia	18, 45
H	Hancock Coal Pty Ltd	32
	health and safety	10, 11, 12, 50, 53, 56, 60
I	International Electro-technical Commission (IEC) standard 61850	20, 22, 24
	Individual Safety Attributes Test (ISAT)	11, 12
	infrastructure security	13, 24
	International Electricity Infrastructure Assurance Forum (IEIA)	24
	International Transmission Operations and Maintenance Study (ITOMS)	3, 9, 20
	Ipswich City Council	47
J	Jurisdictional System Security Coordinator	2
	Jurisdictional Planning Body	2
K	Koala	40, 43, 47
L	Landcare	47
	landowner	13, 41
	live line	8, 22
	live substation	8, 22
	Lockyer Valley Regional Council	47

M	maintenance	3, 9, 7, 8, 12, 17, 18, 20, 22, 24, 39, 40, 41, 46, 58
	Market Impacts of Transmission Congestion (MITC)	16
N	National Electricity Market (NEM)	2, 5, 9, 15, 16, 18, 21, 22, 24, 27, 59
	National Electricity Rules (NER)	2, 4, 5, 15, 16, 17, 18, 21, 26
	<i>National Greenhouse and Energy Reporting Act 2007</i> (NGER Act)	40
	National Transmission Network Development Plan	15
	network availability	16, 17
	network performance	7, 8, 16, 18, 20, 22, 59
	network reliability	3, 9, 16, 19, 20
	network restoration	18
O	outage	7, 16, 18, 28, 58
P	peak electricity demand	8, 9, 21
	Powerlink Excellence Awards	38
	property search	48
Q	Queensland Gas Company (QGC)	31, 46, 56
	Queensland/New South Wales Interconnector transmission line (QNI)	3
	QR National	31, 32
	Queensland Treasury Corporation	6, 55
R	Reach Foundation	48
	Recipient role	22
	recycling	40, 42
	recruitment	14, 34, 35, 36, 37, 38, 54
	regulated revenue	5, 6
	Regulatory Investment Test for Transmission (RIT-T)	2, 27, 41
	Responsible Officer for Queensland	2
	revenue reset	9, 16, 17, 57
S	Safety	1, 2, 3, 7, 8, 9, 10, 11, 12, 13, 14, 20, 22, 24, 26, 27, 37, 38, 48, 50, 53, 56, 60
	Safety Management System	12, 37
	Salvation Army	48
	security	5, 13, 19, 20, 24, 25, 53
	Somerset Regional Council	47
	South Burnett Regional Council	47
	sponsorship	44, 47
	Statement of Corporate Intent (SCI)	6, 7, 50, 51, 53, 54
	Surat Basin	21, 22, 23

T	telecommunications	3, 24, 58
	Toowoomba Regional Council	47
	Transmission Network Service Provider (TNSP)	2, 15
	Transmission use of system charges (TUOS)	15, 16
	Tropical Cyclone Yasi	16
U	University of Queensland's Koala Fund (UQKF)	43
W	weed	39
	wellbeing	14, 26, 54
	Western Downs Regional Council	47
	wildlife	26, 42
	workforce	11, 13, 14, 35, 36
	Working at Powerlink Enterprise Agreement	35
X	Xstrata	32

GLOSSARY

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ATLR	Average Time Lost Rate
APLNG	Australia Pacific Liquefied Natural Gas
APR	Annual Planning Report
ARPANSA	Australian Radiation Protection and Nuclear Safety Agency
ASX	Australian Stock Exchange
CHMP	Cultural Heritage Management Plan
CIGRE	International Council on Large Electric Systems
CO₂-e	Equivalent carbon dioxide
Debt to Fixed Assets	Debt/Fixed Assets
DERM	Department of Environment and Resource Management. Some of the functions of DERM are now delivered by the Department of Environment and Heritage Protection.
DNSP	Distribution Network Service Provider
EBIT	Earnings Before Interest and Tax
EBITDA	Earnings Before Interest and Tax, Depreciation and Amortisation
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMF	Electric and Magnetic Fields
EMP	Environmental Management Plan
EMS	Energy Management System
EMS	Environmental Management System
ENA	Energy Networks Association
ESI	Australian Electricity Supply Industry
EUAA	Energy Users Association of Australia
EWP	Environmental Work Plan
GOC	Government Owned Corporation
Grid	The high voltage transmission network
Grid Australia	The organisation that represents electricity transmission network owners
Guidelines	Corporate Governance Guidelines for Government Owned Corporations
IEIA	International Electricity Infrastructure Assurance
IEC	International Electro-technical Commission
Interest cover	EBIT/gross interest expense

ISAT	Individual Safety Attributes Test
ITOMS	International Transmission Operations and Maintenance Study
LNG	Liquefied natural gas
LTC	Lost Time Calculation
LTIFR	Lost Time Injury Frequency Rate
MITC	Market Impacts of Transmission Congestion
NEM	National Electricity Market
NER	National Electricity Rules
NGER Act	<i>National Greenhouse and Energy Reporting Act 2007</i>
NPAT	Net Profit After Tax
Operating agreement	The agreement between Powerlink and AEMO which establishes Powerlink as the System Operator under the National Electricity Rules. The agreement defines the geographical areas for direct and indirect oversight for operational control. The agreement also defines the extent to which AEMO's powers have been delegated to Powerlink.
OPGW	Optical fibre ground wire
QGC	Queensland Gas Company
QMDC	Queensland Murray-Darling Committee
QNI	Queensland/New South Wales Interconnector transmission line
QRN	QR National
RIT-T	Regulatory Investment Test for Transmission, promulgated by the AER under the National Electricity Rules must be used by TNSPs to assess future electricity needs.
Return on Assets	Earnings before interest and tax and after abnormal (EBIT)/average total income
Return on Equity	Operating profit after income tax/average total equity
ROA	Return on Total Assets
SCI	Statement of Corporate Intent
SPA	<i>Sustainable Planning Act 2009</i>
SF₆	Sulphur hexafluoride gas
Summer peak electricity demand	The peak power (in MW) delivered from Powerlink's network during summer
TFR	Total Fixed Remuneration
TISN	Trusted Information Sharing Network
TNSP	Transmission Network Service Provider
TUOS	Transmission Use of System charges

TERMS OF MEASUREMENT

Dispatch interval	The five minute period at which AEMO calculates the generation dispatch and pricing across the NEM.
Gigawatt (GW)	One gigawatt = 1,000 megawatts or 1,000 million watts
Gigawatt hour (GWhr)	One gigawatt hour = 1,000 megawatt hours or one million kilowatt hours
Kilovolt (kV)	One kilovolt = 1,000 volts A volt is a unit of potential or electrical pressure.
Kilowatt (kW)	One kilowatt = 1,000 watts A watt is a unit of electrical power or the rate of doing work.
Kilowatt hour (kWh)	The standard unit of energy representing consumption of electrical energy at the rate of one kilowatt.
m	Million
Megawatt (MW)	One megawatt = 1,000 kilowatts or one million watts
Megawatt hour (MWh)	One megawatt hour = 1,000 kilowatt hours
System minute	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.
Work units	Work units are used to manage routine maintenance. A work unit represents the comparative effort of work that is required to perform a particular routine maintenance task.



POWERLINK QUEENSLAND

ABN 82 078 849 233

33 Harold Street Virginia
Queensland Australia 4014

PO Box 1193 Virginia
Queensland Australia 4014

Telephone: (07) 3860 2111
Facsimile: (07) 3860 2100

www.powerlink.com.au

