



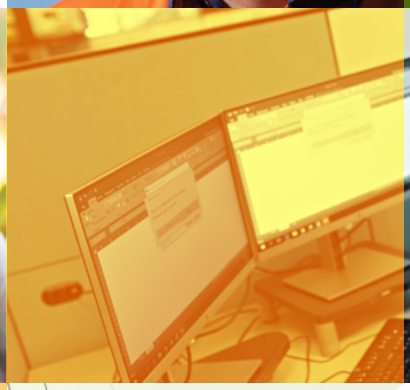
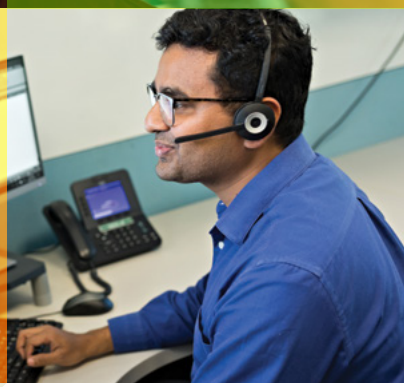
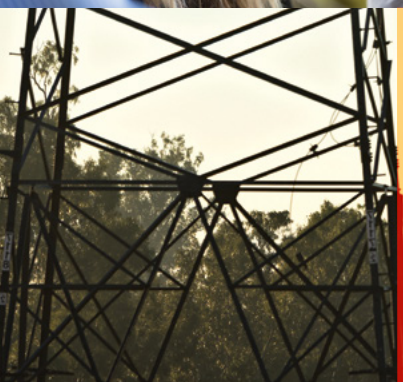
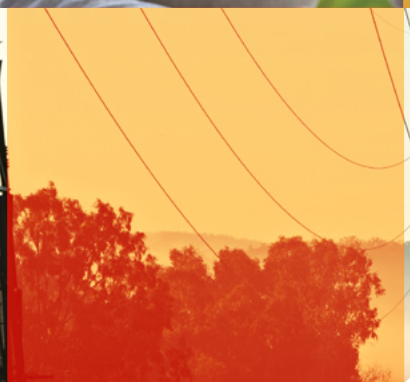


Powerlink Queensland

Annual Report & Financial Statements

2017/18




Contents

Corporate profile

Mission

Powerlink enriches lifestyles and powers economic growth through electricity transmission and associated solutions.

Vision

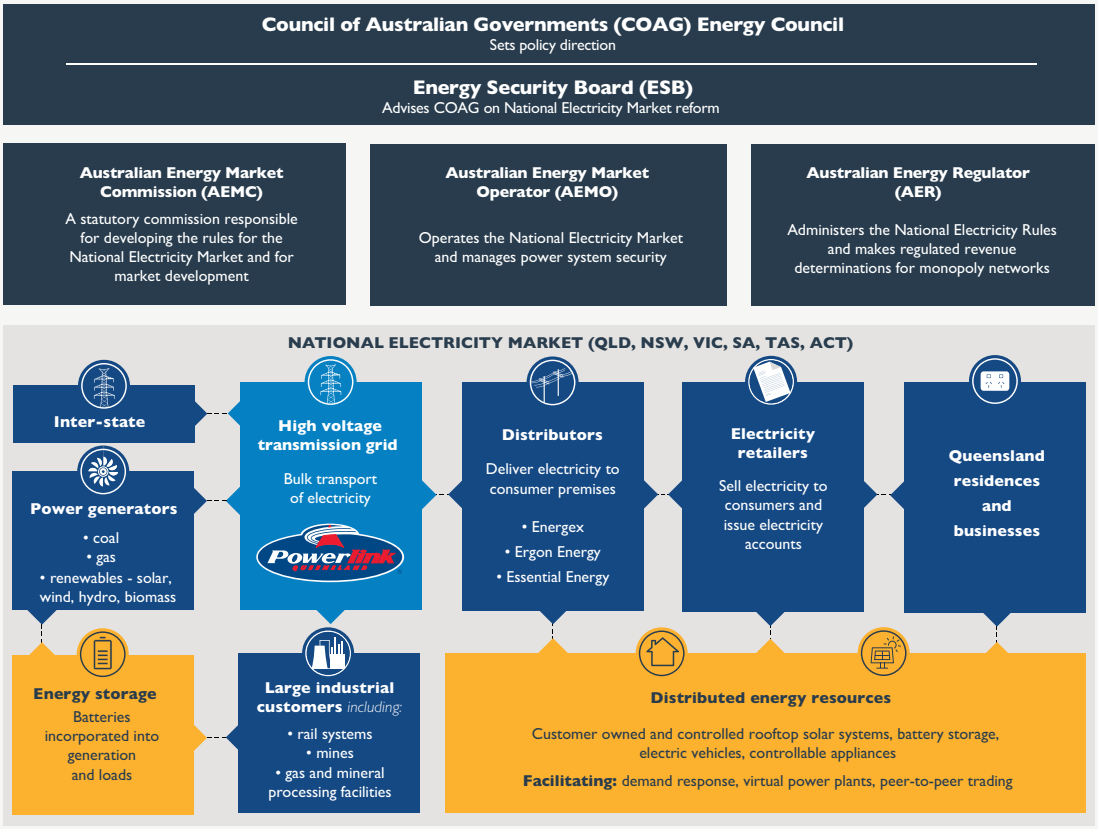
We are innovative and customer focused with a stronger business and reputation.

Values

The values that guide our behaviour are:

• Safe • Respectful • Proactive
• Ethical • Cooperative

Powerlink's role in the power supply industry



Reporting

This Annual 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. It contains Powerlink's Financial Report for 2017/18. Powerlink Queensland is the trading name of Queensland Electricity Transmission Corporation Limited.

Highlights 2017/18

- We delivered Earnings Before Interest and Tax (EBIT) of $468.0 million and a Net Profit of $167.3 million, both higher than our Statement of Corporate Intent (SCI) target with controllable operating costs below target.
- We focused on value for money for customers and reduced Powerlink's contribution to electricity bills by almost one third, representing an annual saving of between $23 and $38 for the average Queensland household.
- We committed to a Customer Service Charter that provides our customers with a clear understanding of what to expect from us.
- We worked with local, national and international developers of 13 renewable generation projects that committed to development and are connecting more than 1,600 megawatts of generation capacity to the transmission network.
- We benchmarked as a top quartile performer against Australian and international transmission businesses, in terms of cost efficiency and network reliability, in the 2017 International Transmission Operations and Maintenance Study.
- We negotiated and ratified the *Working At Powerlink Union Collective Agreement 2018* and the *Powerlink Managers Enterprise Agreement 2018*.

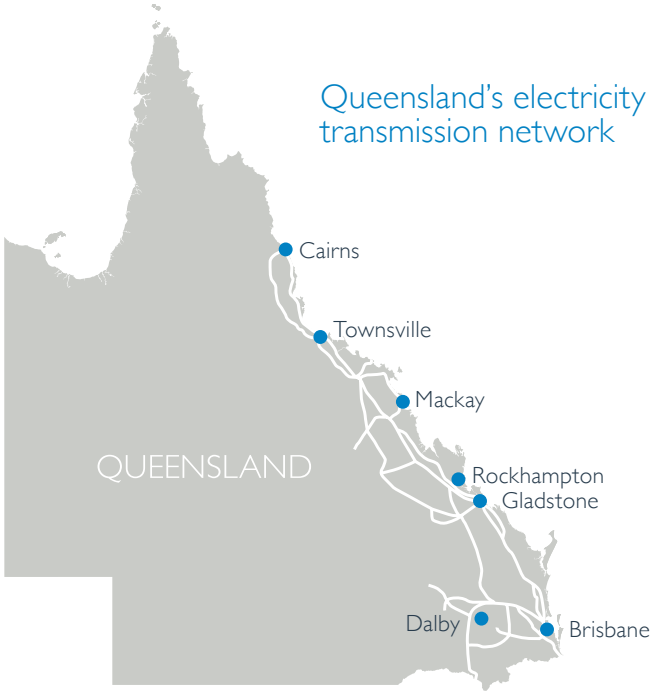
Powerlink profile

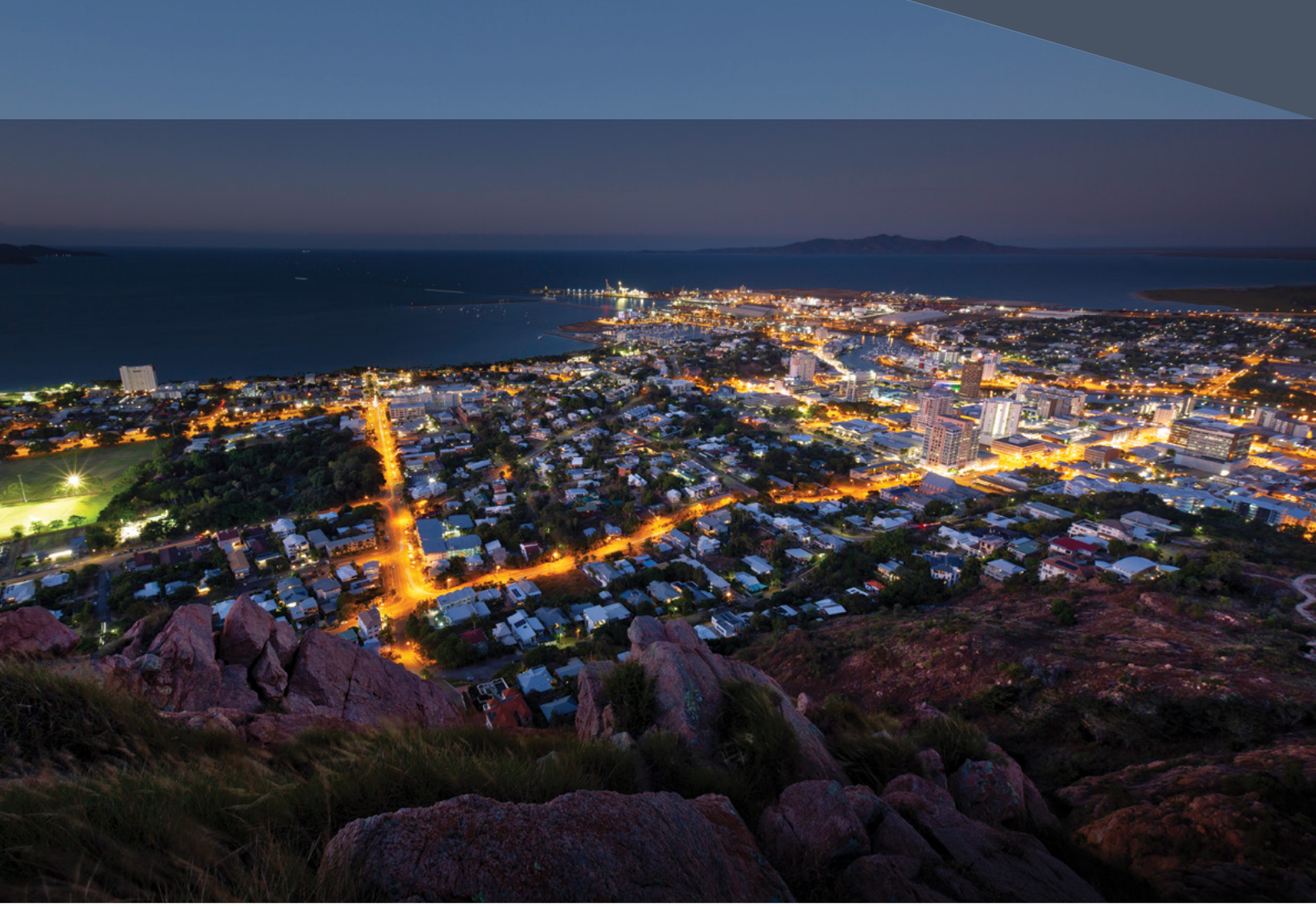
Powerlink Queensland is a leading Australian provider of high voltage electricity transmission network services, combining innovation with insight to deliver safe, cost effective and reliable solutions. We are a Queensland Government Owned Corporation (GOC) that owns, develops, operates and maintains the high voltage electricity transmission network in Queensland. Our network extends 1,700km from Cairns to the New South Wales border, and comprises 15,337 circuit kilometres of transmission lines and 140 substations.

We deliver the transmission services needed to support economic growth and enrich lifestyles across the country. We have a strong history of connecting customers with the energy they need, providing electricity to almost four million Queenslanders. We transport high voltage electricity, generated at major power stations, through our transmission grid to the distribution networks owned by Energex and Ergon Energy (part of the Energy Queensland Group) and Essential Energy (in northern New South Wales) to supply customers. We also transport electricity to high usage industrial customers such as rail companies, mines and mineral processing facilities, and to New South Wales via the Queensland/NSW Interconnector (QNI) transmission line.

Powerlink has Australia's most experienced transmission network connection team, having delivered more network connections on a commercial basis than any other transmission company in Australia.

We are a Transmission Network Service Provider (TNSP) in the National Electricity Market (NEM). The majority of Powerlink's network is regulated by the Australian Energy Regulator (AER) under the National Electricity Law and the National Electricity Rules (NER).





Lights come on across Townsville CBD.

Financial overview

The 2017/18 financial year was the first year of Powerlink's current five-year regulatory period as set by the Australian Energy Regulator (AER) in Powerlink's 2017/18 to 2021/22 Regulatory Transmission Determination in April 2017.

The regulatory process establishes Powerlink's regulated revenue for a five year period commencing 1 July 2017, and allows for efficient costs to meet Powerlink's operating and investment requirements. The regulatory determination process also establishes Powerlink's initial Weighted Average Cost of Capital (WACC) for the period, at 6.02 per cent for the 2017/18 financial year.

Powerlink business performance

Earnings Before Interest and Tax (EBIT) for 2017/18 was $468.0 million with total revenue of $1,026.1 million.

Powerlink continually strives to provide safe, efficient and effective transmission services for Queenslanders. A key focus for Powerlink is to sustainably improve the cost efficiency of its operations, which for 2017/18 resulted in controllable operating costs of $212.4 million – 9.8 per cent below the SCI target and 9.0 per cent below the prior year controllable operating cost base.

Powerlink uses the 'controllable operating cost as a percentage of depreciated asset value' ratio as one of its measures of cost efficiency. Our 2017/18 performance resulted in a ratio of 2.8 per cent, reflecting an improvement on our prior position as well as outperforming the annual target of 3.0 per cent.

Powerlink's Net Profit After Tax (NPAT) for 2017/18 was $167.3 million, which was a stronger result than the SCI target. NPAT was below the prior year due to the lower WACC received in the regulatory transmission determination.

Capital investment

Capital expenditure in 2017/18 was $243.9 million and exceeded the SCI target of $196.5 million with the additional expenditure primarily in response to the strong growth in providing connection services to renewable energy generation projects committing to development. The remaining capital expenditure was focused on refurbishment and replacement of assets.

Borrowings

Debt requirements for the 2017/18 year remained unchanged at $5.3 billion despite the stronger capital expenditure levels during the year.

Dividends

Powerlink's final declared dividend for 2017/18 was $166.6 million, in addition to the $50 million of special dividends paid during the year.

Summary of Statement of Corporate Intent 2017/18

Our SCI for 2017/18, 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 in the SCI, as well as our performance against these indicators. Further information on performance outcomes when these targets were not met is provided throughout the report.

Objectives	2017/18 Performance targets	2017/18 Performance outcomes
Meet financial targets		
Achieve specified financial performance		
Earnings Before Interest and Tax (EBIT)	$ 411.3 million	$ 468.0 million
Net Profit After Tax (NPAT)	$ 129.5 million	$ 167.3 million
Return on Assets	5.0%	5.7%
Net Debt/Fixed Assets Ratio (1)	65.4%	65.5%
Net Debt/Regulated Assets Ratio (1)	75.0%	75.8%
Debt/Debt + Equity Ratio	75.9%	74.6%
Cash Flow From Operations + Interest/Interest	>2 times	2.9 times
Cash Flow From Operations/Net Debt (1)	>7%	8.4%
Interest Cover Ratio (EBITDA)	3.3 times	3.6 times
Deliver shareholder value		
Deliver targeted dividends and returns to shareholders		
Return on Equity	8.0%	9.5%
Dividend Payout Ratio	139% (includes Special Dividends)	130%
Distribution Yield (1)	22.4%	15.2%
Distribution Cash Coverage	0.9 times	1.2 times
Dividend provided	$ 179.5 million	$ 217.3 million
Deliver our capital works program		
Develop the Queensland transmission grid to maintain reliability and meet customer requirements		
Total capital works expenditure	$ 196.5 million	$ 243.9 million
Meet non-financial targets		
Achieve specified safety performance		
Lost Time Injury Frequency Rate (LTIFR)	2.0	1.8
Total Recordable Injury Frequency Rate (TRIFR)	8.5	7.3
Compliant with relevant environmental legislation		
Environment	To be compliant with relevant legislation	Compliant
Environmental incidents	Nil	13
Achieve cost efficiency performance targets		
Maintenance operating cost/depreciated asset value	1.6%	1.6%
Controllable operating cost/depreciated asset value	3.0%	2.8%
Achieve network performance targets (financial year ended 30 June 2018)		
System reliability parameters		
- Events in excess of 0.05 system minutes	Not more than 3	4
- Events in excess of 0.40 system minutes	Not more than 1	1

(1) On 8 June 2017 Powerlink's shareholding Ministers directed Powerlink to retain $150 million of its then proposed dividends for the potential development of a transmission line linking potential renewable energy generators in North Queensland (Clean Energy Hub). As at 30 June 2018 Powerlink continues to retain this amount and as such removes the effects of the $150 million from Net Debt position of the above ratios.

Chair's review

At Powerlink we remain committed to adapting and responding to the changing industry through sharpening our strategic direction, improving our customer delivery and strengthening our relationships with stakeholders.

Powerlink achieved its key financial targets as approved by the shareholding Ministers for 2017/18. With the start of the new regulatory period, the emphasis has been improving the operating cost base to ensure that consumer outcomes are delivered in a cost effective way, in line with the Australian Energy Regulator's Final Decision on Powerlink's transmission determination.

Powerlink's underlying dividend policy is to distribute 100 per cent of the Net Profit After Tax, which was $167.3 million for 2017/18. In addition, a special dividend of $50 million was paid during the year. We were able to do this without any additional borrowings.

We have continued to work with the Queensland Government to deliver the initiatives presented in its Powering Queensland Plan. Powerlink's commitments included contributing to the summer preparedness plan that ensured our network safely and reliably provided power during the summer period, including the record peak demand in February 2018.

We also focused on preparedness for the Gold Coast 2018 Commonwealth Games so that customers experienced safe and reliable electricity supply, and our systems and sites remained secure.

Along with many other businesses, we are operating in a rapidly transforming environment, which shapes our future planning. It is influenced by factors including the significant increase in the development of large-scale solar and wind farms, shifting customer behaviour, and new industrial and mining developments that change the demands on our transmission network. With these evolving factors in mind, we provided input to a range of changes to the National Electricity Rules and regulations, including input to the Australian Energy Market Operator's inaugural Integrated System Plan.

We are seeking to become more acutely focused on meeting customers' expectations and have captured our customer commitments in our Customer Service Charter. We also enhanced the transparency of our network planning processes and provided our customers with better information and greater clarity about how to connect to our network.

We engaged with our customers on many aspects of our activities, as we value their input to our business decision making, including the way we implement regulatory changes and manage our assets.

A key priority of the Board has been development of an organisational culture at Powerlink that supports a workforce that is safe, high performing, responsive to change and motivated to succeed in collaboration with our customers. Safety is essential at Powerlink and through our maturing safety culture we are improving safety outcomes for our whole workforce, both direct employees and contractors.

I thank the Powerlink Board members for their valued support and input, and extend a welcome our new Director, Dr Lorraine Stephenson.

On behalf of the Directors, I am grateful to Powerlink's employees for their efforts and future focus. Their work enables Powerlink to deliver our business strategy safely and create value for our customers and the State of Queensland.

DR JULIE BEEBY

Chief Executive's review

Powerlink is making a key contribution to the future of electricity supply in Queensland.

Our people consistently demonstrate their skills and experience in ways that help Powerlink to deliver our vision to be innovative and customer focused. I appreciate their support for initiatives to embed our desired culture and make Powerlink a great place to work. Their input has been integral to the refresh of Powerlink's corporate values that will be launched in 2018/19 and will guide the way we do business and engage with our stakeholders.

We aim to put customers at the centre of everything we do, as we focus on providing safe, cost-effective and reliable transmission services and great customer experiences, while keeping downward pressure on electricity prices.

We work with all types of businesses looking to connect to the transmission network and are responding to an unprecedented level of enquiry from generation proponents. In the current environment, Powerlink is playing a vital role in enabling large-scale renewable generation projects to connect to the grid. In 2017/18, we've been working to connect 13 committed renewable generation projects.

At the same time, we delivered six major regulated projects totalling around $70 million, predominantly reinvestment in the transmission network to ensure the ongoing reliability and security of supply that customers expect. In readiness for summer, we completed the rebuild of 19 towers damaged by flooding after Cyclone Debbie in March 2017, the most significant damage ever caused to our network by a natural disaster.

In line with changes to the National Electricity Rules, a greater number of proposed network replacements will go through the Regulatory Investment Test for Transmission to increase transparency and afford our stakeholders more opportunities to engage in our investment decision making processes. In preparing for this and other changes within the National Electricity Market, we have participated in numerous engagement processes and implemented significant changes to the way we do business.

We are working with electricity supply chain partners in developing an industry-wide Energy Charter initiative aimed to take account of customer expectations and provide a framework to help deliver energy for a better Australia. The initiative is part-way through development and will facilitate more transparent reporting to our customers and other stakeholders.

This year, Powerlink's contribution to electricity bills fell by almost one third. We continue to pursue opportunities to provide better value for money to customers and value feedback from our stakeholders on how we can better meet their expectations.

MERRYN YORK

At Powerlink, the safety of our people, communities and contractors is essential.

Health, safety and environment

Committed and accountable

At Powerlink, the safety of our employees, contractors and the communities in which we operate is essential. Powerlink is also committed to protecting the environment and managing the potential environmental impacts of our activities.

At Powerlink, every individual is responsible and accountable for health, safety and responsible environmental management. Our leaders are active role models of this commitment.

Our established Safe for Life program continues to drive the improvement of our safety culture, so we make the safest choices and continue to improve our safety practices and outcomes. Within the Safe for Life program, an important focus area for 2017/18 was our Health, Safety and Environment (HSE) Management Systems. We started to integrate our management systems for health and safety and environment with the aim of establishing an improved, fit-for-purpose HSE system that supports Powerlink's business priorities.

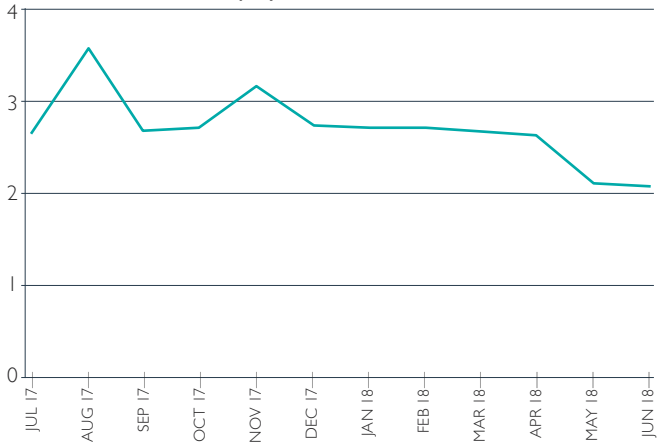
Safety performance

Powerlink's Electrical Safety Management (ESM) Framework is our approach to ensuring an electrically safe network and forms an important element of our HSE Management System. The ESM Framework retained certification under the *Electrical Safety Act 2002* following an annual performance audit undertaken by auditors accredited by the Electrical Safety Office.

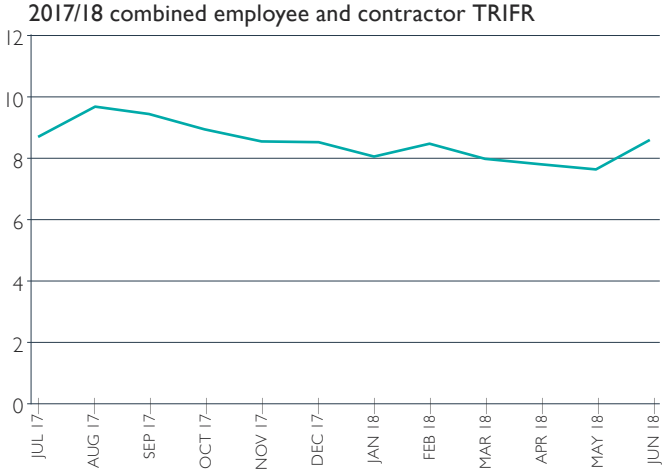
Powerlink continues to monitor and report performance against key safety performance indicators, being the Lost Time Injury Frequency Rate (LTIFR) and Total Recordable Injury Frequency Rate (TRIFR).

Following an increase at the start of the year, the combined Powerlink employee and contractor LTIFR showed a trend of improvement over most of 2017/18. Powerlink took action to improve our performance by focusing on improved reporting of leading indicators such as near hits and hazards.

2017/18 combined employee and contractor LTIFR



2017/18 combined employee and contractor TRIFR



The combined Powerlink employee and contractor TRIFR showed an improving downward trend throughout the 2017/18 year but increased in June 2018. This measure, which is inclusive of lost time injuries and extends to medically treated and restricted work injuries, aligns with contemporary industry practice and visibly demonstrates Powerlink's commitment to our Safe for Life program – Everyone, Everywhere, Everyday.

Powerlink's Executive Health and Safety Committee meets regularly to discuss safety performance including serious incidents, trends, targets and industry best practice. Powerlink's Board has oversight of this Executive Committee and monitors workplace health and safety performance. In line with the broader integration of HSE work practices, the Executive Committee will also be an integrated HSE Committee from 2017/18.

Contractor HSE management

We require our contractors to apply systems of work and display behaviours that support the effective management of HSE at all times. Our ongoing engagement processes help ensure our contractors share our commitment to HSE and are willing to meet or exceed our safety standards.

We developed the capability of our project delivery teams to validate the application of the HSE systems and controls applied by our contractors, which ensures we can continue to work together to further improve our HSE performance during network infrastructure delivery.

Health and wellbeing

We reinforced our commitment to health and wellbeing in the workplace by driving initiatives to address strategic risks of workplace stress, fatigue, hazardous manual tasks and heat stress.

We continue to provide services to support the mental and physical wellbeing of our people through the Employee Assistance Program.

We joined with industry partners, the State Government and unions to begin a state-wide roll out of a new Mates in Energy peer support suicide prevention program.

This program is a targeted adaptation of the successful Mates in Construction program, which Powerlink introduced and embedded within our front line areas four years ago.

Powerlink's alcohol and other drugs management program continues to be embedded within the business and reinforces our commitment to Safe for Life.

Public safety and infrastructure security

We delivered a number of improvements to public safety and security by increasing the robustness of our critical substation infrastructure to prevent unauthorised entry and strengthen site entry requirements.

Powerlink continued to promote the 'Look up and Live' messages about powerline safety and other community electrical safety awareness activities in collaboration with industry partners and the Electrical Safety Office. We encourage safe community behaviours around our network during face-to-face interactions with landholders and community events, and through targeted social media.

Environmental management

Powerlink strives to continually improve our environmental performance, and we acknowledge that responsible environmental management is integral to our business operations. We review Powerlink's environmental performance against relevant legislative requirements and internal performance indicators.

Powerlink responsibly manages regulated waste associated with our business activities. In 2017/18 we were granted approval from State and local government agencies to expand our service offering in reprocessing used Sulphur Hexafluoride (SF_6) gas and storing regulated waste at our facility in Virginia, Brisbane.

Greenhouse emissions reporting

Powerlink reports annually on energy and greenhouse gas emissions to remain compliant with the *National Greenhouse and Energy Reporting Act 2007*. An independent limited assurance audit verified the accuracy of Powerlink's 2017 report.

Notifiable incidents — substation oil containment systems

Consistent with our obligations, Powerlink notified the Department of Environment and Science (DES) of 13 substation sites affected by oil containment issues, which included levels of hydrocarbons in the soil in excess of acceptable levels.

From incident identification, Powerlink developed a response plan to immediately contain discharge while identifying longer term plans to rectify the issue and has worked closely with DES to ensure our response complied with all relevant requirements. Trial second stage filtration controls were implemented at a number of sites to prevent further discharge of contaminated water from the oil containment systems. We continue to work with stakeholders to ensure these controls are effective.

Committed renewable connection projects across Queensland.

Customer service

Customer focus

We developed a Customer Charter to define and share our customer commitment, providing a clear understanding of what our customers can expect from us. The charter acknowledges the important role our customers will play in the evolving power system as we move towards a lower carbon future and provide greater customer choice in how energy is accessed and used. It expresses our commitment to genuine engagement with our customers to better understand their needs and actively seek their input to improve our decision making.

Connecting new renewable generation

Powerlink has Australia's most experienced transmission network connection team, having delivered more network connections on a commercial basis than any other transmission company.

In 2017/18, Powerlink experienced an unprecedented level of enquiries from renewable generators seeking to connect to the Queensland transmission network. Proponents represent a broad customer base from across international, national and local developers.

120 ENQUIRIES	We responded to more than 120 connection enquiries and more than 35 applications from generators totalling almost 25,000 megawatts.
7 AGREEMENTS	We finalised seven connection agreements for new renewable generation totalling 1,012 megawatts.
13 PROJECTS	At 30 June 2018, we had 13 connection projects either delivered or under construction, representing more than 1,600 megawatts of renewable generation.

A key milestone was the completion of the 100 megawatt Clare Solar Farm, Queensland's largest solar farm to date. Located near Ayr, the project was developed and managed by Fotowatio Renewables Ventures (FRV) with Powerlink's connection works involving an extension to the existing Clare South Substation.

Powerlink is also working on a connection for one of Australia's largest wind farms, Coopers Gap Wind Farm, located 250 kilometres north-west of Brisbane and being developed by the Powering Australian Renewables Fund (PARF). Our connection works include building a new 275 kilovolt substation at Cooranga North, to connect the 440 megawatt wind farm.

Renewable electricity generator connections completed or under construction in 2017/18 *(with Connection and Access Agreements in place)*

Region	Project	Generation capacity at the point of connection
North	Clare Solar Farm	100 megawatts
	Daydream Solar Farm	150 megawatts
	Hamilton Solar Farm	57 megawatts
	Haughton Solar Farm (Stage 1)	100 megawatts
	Hayman Solar Farm	50 megawatts
	Mt Emerald Wind Farm	180 megawatts
	Ross River Solar Farm	116 megawatts
	Sun Metals Solar Farm	107 megawatts
	Whitsunday Solar Farm	57 megawatts
Central Queensland	Lilyvale Solar Farm	100 megawatts
	Rugby Run Solar Farm	65 megawatts
Southern Queensland	Coopers Gap Wind Farm	440 megawatts
	Darling Downs Solar Farm	108 megawatts

Delivering the right technical solution for a mining customer in Central Queensland.

To further assist customers, we streamlined our connection process, which included updating our contracts, and terms and conditions. This helps us to provide timely connection offers that fit with customer timelines and applications. We also developed customer information about our operations and maintenance scheduling, design standards for transmission lines and substations, equipment strategies for key plant, and standard layouts for substations, lines, cables and secondary systems to facilitate the requirements of the new Transmission Connection and Planning Arrangements, effective under the NER from 1 July 2018.

Clean Energy Hub

Powerlink conducted a feasibility study into the development of a Clean Energy Hub located generally between Einasleigh and Hughenden in North West Queensland. The study was undertaken under the sponsorship of the Queensland Energy Security Taskforce (QEST) and investigated a hub comprising one or more transmission assets developed to facilitate the connection of clean energy proponents in North and North West Queensland to the NEM.

More than 30 submissions were received as part of the Expression of Interest process and were assessed to inform the feasibility study.

Customer-focused solutions

Powerlink continues to provide technical and professional advice and solutions to meet a range of customer needs.

We temporarily reconfigured the transmission network in Central Queensland to allow the safe passage of a BHP Mitsui Coal (BMC) 3,500 tonne mining dragline, without impacting consumers in this area.

The 72 metre tall dragline dwarfed the two transmission lines that stood in its path, so we worked closely with BMC to meet its specific business needs while planning for and implementing the successful dragline relocation activities.

Powerlink's laboratory services team continued to provide a wide range of oil and insulation testing, condition monitoring and engineering support services. From our purpose-built laboratory, we provided services to customers in Australia and New Zealand, and expanded our service offering to include gearbox oil services for the railway industry and additional SF_6 reconditioning.

Energy Charter initiative

As a member of a national working group, Powerlink is contributing to the development of an industry-wide Energy Charter initiative. This initiative focuses on delivering energy in line with community expectations. Its development is being informed by engagement with customers and other interested stakeholders and is ongoing.

The charter will include key commitments focused on affordability, better service delivery and collaboration between energy, government and community sectors. It is aimed at driving consistent and transparent reporting to enable customers to understand the way energy businesses have met the expectations of energy customers.

It is intended future Powerlink Annual Reports will identify and publish details of our performance against the Charter principles and outcomes for customers.

We are focused on meeting our customer' needs.

Operating in the National Electricity Market

Transmission pricing

Powerlink recognises that access to safe and reliable transmission services supports the Queensland economy and enriches lifestyles. We play our part in the electricity supply system by putting downward pressure on electricity prices and focusing on delivering greater value to our customers.

Powerlink's contribution to electricity bills fell by almost one third from 1 July 2017. This reduction resulted from the commitments in our well-informed proposal to the AER during the regulatory determination process for the 2017/18 to 2021/22 regulatory period.

Powerlink's transmission network represents about seven per cent of the total delivered cost of electricity for a typical Queensland residential electricity consumer. We calculate our regulated transmission charges in accordance with the National Electricity Rules (NER) and Powerlink's AER-approved Pricing Methodology. This process incorporates recovery of Powerlink's maximum allowed revenue for the provision of regulated transmission services, which was $752.7 million in 2017/18.

Customers that directly connect to Powerlink's transmission network are charged for using the network. Charges vary according to factors such as location and level of use.

Recently Powerlink started engaging with customers and stakeholders on our review of regulated transmission pricing arrangements during 2017/18. The review is intended to help customers better understand the current arrangements and identify opportunities for Powerlink to deliver more valued pricing outcomes for customers. The review will provide an opportunity to examine potential changes to the existing transmission pricing framework and consider whether amendments to the NER and Powerlink's approved Pricing Methodology are needed.

Engaging in market development

Powerlink participated in a number of consultations that contributed to the development of the NEM within a changing operating environment. Key processes include:

National Energy Guarantee

In October 2017, the Energy Security Board (ESB) recommended to the Council of Australian Governments (COAG) Energy Council that a National Energy Guarantee (NEG) be developed to encourage new investment in dispatchable resources while meeting emissions targets, ensuring system reliability and delivering more affordable energy to Australian consumers. The ESB will continue to consult on the design of the NEG before presenting its final proposal to the COAG Energy Council.

System security and reliability reviews

In the context of an energy system in transformation and a lower emissions future, a range of reviews and Rule changes is underway to ensure a secure and reliable power system. The System Security Frameworks Review recommended a package of reforms to deliver a more stable power system, including new obligations on transmission network businesses and ways to integrate new technologies. The Reliability Frameworks Review is considering ways to support a reliable supply of electricity that includes more variable, intermittent generation (such as wind and solar) and demand-side technologies (such as energy storage).

Integrated System Plan

AEMO will deliver its first Integrated System Plan (ISP) in July 2018, a key recommendation of the Independent Review into the Future Security of the NEM (the Finkel Review). Powerlink is a contributor to the development of the ISP, which aims to set out a long-term plan for the efficient development of the transmission networks in the NEM and connection of renewable energy zones.

Coordination of Generation and Transmission Investment Review

The Australian Energy Market Commission (AEMC) is considering ways to improve the coordination of generation and transmission network investment in the NEM. The review forms part of a biennial reporting regime to the COAG Energy Council on key drivers that could impact future transmission and generation investment. The AEMC is also considering the implications of network congestion, the role of storage and various design options for renewable energy zones.

Regulatory Investment Test for Transmission

In July 2017, the AEMC introduced new Rules to increase the transparency of asset retirement, de-rating and replacement decisions of network businesses. Powerlink is now undertaking the RIT-T process for proposed network replacements and will publish more information in our Transmission Annual Planning Report.

Transmission Connections and Planning Rule Change

Powerlink has been preparing to respond to Rule changes which will take effect on 1 July 2018, providing more choice, control and certainty for parties connecting to the transmission network. The changes include the introduction of competition in providing certain connection assets and publishing more information about how to connect to transmission networks. The new Rules will also clarify that the relevant TNSP is responsible for the operation, maintenance and control of the shared transmission network.

Stakeholder engagement

Through our role in Energy Networks Australia (ENA), we contributed to the development of an initiative called 'New Reg: Towards consumer-centric energy network regulation'. This joint initiative between the AER, Energy Consumers Australia and ENA aims to improve engagement on network Revenue Proposals and identify opportunities for regulatory innovation.

Network planning

In planning the transmission network, Powerlink is adapting to the energy transformation taking place in Queensland. That transformation includes growing renewable generation, particularly solar PV and wind farm generation, possible retirement of fossil-fuelled generation, as well as changing electricity demand shaped by new large industrial and mining loads, and shifting customer behaviours and expectations.

These changes create opportunities and challenges for Powerlink as we plan to optimise utilisation of the transmission network to achieve lower-cost solutions that achieve energy security, reliability, affordability and reduced emissions needs. In meeting these challenges, Powerlink plans, develops and operates its network to meet reliability standards set out in the NER, Queensland's *Electricity Act 1994* and Powerlink's Transmission Authority.

The planning standard set in Powerlink's Transmission Authority requires our network to be planned and developed on the basis that only a limited amount of load will be at risk of interruption during a single contingency event. This standard is applied through Powerlink's policies and frameworks, so the transmission network can be operated and maintained in a way that achieves reliable supply outcomes for customers while balancing cost and other factors.

Each year Powerlink assesses the network's capability to meet forecast electricity demand. That process involves joint planning with AEMO, other TNSPs, distribution network service providers connected to our network, and other stakeholders. In accordance with the NER, this collaborative approach identifies network and non-network solutions that deliver the lowest long-run cost to customers.

In 2017/18, Powerlink contributed to the inaugural 2018 ISP, prepared by AEMO in line with the recommendations of the Finkel Review. We also started working with TransGrid on joint planning to assess the benefits of upgrading the transmission interconnector capability between Queensland and New South Wales. In addition, we provided other information to support AEMO's modelling, including in relation to renewable energy zones.

Network performance

We experienced four unexpected loss of supply events greater than 0.05 system minutes on our transmission network during 2017/18, which is higher than the SCI target. Of these four events, two occurred during periods of high intensity lightning activity while the other two took place when the network was temporarily reconfigured to accommodate project work. Our well-established emergency management practices ensured the duration of these outages was minimised, with electricity supply restored as safely and quickly as possible.

The AER sets calendar year performance targets for Powerlink for the duration of each five-year regulatory period through the Service Target Performance Incentive Scheme (STPIS). For 2017, Powerlink's performance exceeded the targets set by the AER.

Network access management

Powerlink is undertaking a project to transform our network outage management processes. Consistent with the requirements of the NER, Powerlink provides AEMO with up-to-date information on planned outages on the transmission network, to help ensure stakeholders are kept well informed about our operational activities.

The new system will provide benefits, including improved transparency for directly connected customers and a better interface with AEMO. We have progressed the project to the build phase, with testing, training and deployment planned for 2018/19.

International benchmarking

The 2017 International Transmission Operations and Maintenance Study (ITOMS) identified Powerlink as a top quartile performer in overall trending in terms of cost efficiency and network reliability. ITOMS is a biennial benchmarking study of network performance and practices, which involved 30 Australian and international transmission businesses in 2017.

Powerlink's participation in ITOMS over more than a decade has helped to drive improvements in our business. When compared to ITOMS 2015, Powerlink maintained our overall position in terms of reliability, with lower costs.

Replacing the ageing Garbutt to Alan Sherriff transmission line to maintain a safe and reliable electricity supply to the Townsville region.

Network strategy and operations

Electricity demand and forecasting

During the 2017/18 summer, a new maximum electricity demand record was set on 14 February 2018, which exceeded the forecast maximum demand by three per cent. The 2018 TAPR forecasts Queensland's summer maximum demand will increase at an average annual rate of 0.4 per cent per annum over the next 10 years. This is slightly lower than the average annual rate forecast in the 2017 TAPR, due to a range of factors, including customer behaviour and coal seam gas sector demand reaching its peak. Overall, the 10-year summer maximum demand forecast is slightly higher than the 2017 TAPR, due to the increased demand (weather corrected) recorded over the previous summer.

Over the next decade, Queensland's transmission delivered energy consumption is forecast to decrease at an average of 0.7 per cent per annum, impacted largely by the forecast increases in the capacity of renewable generation connecting to the electricity distribution networks.

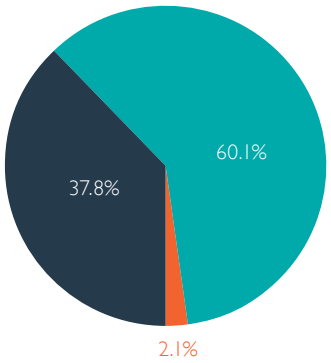
Capital works program

Powerlink's strategic approach to asset investment ensures we provide safe and reliable transmission services that are cost effective, while supporting a sustainable energy system of the future. Our approach recognises our customers' needs, and delivers value by managing risk, optimising performance and managing expenditure on assets through whole of asset lifecycle management.

Powerlink's forecast total regulated capital expenditure for the 2018 to 2022 regulatory period as determined by the AER is $835.5 million (2016/17 real), which is considerably less than undertaken in previous regulatory periods.

To address the challenges specific to reinvestment projects, Powerlink's approach includes a strategy to achieve efficiency and minimise impacts on customers and the NEM, and to secure the best resources to optimise project delivery.

Total capital works project expenditure in 2017/18: $243.9 million.



Capital expenditure as a percentage of total network capital works 2017/18

- Non-regulated customer connections*
- Regulated reinvestment in assets reaching end of technical service life
- Regulated transmission network developments

**The cost of non-regulated customer connections is paid for by the customer seeking the connection.*

Maintenance and materials management

Our maintenance program ensures we continue to deliver safe, cost effective and reliable transmission services. We track progress against network maintenance targets to ensure maintenance work is programmed and is consistent with required activities. The delivery of maintenance work is adjusted within acceptable windows in response to a range of internal and external factors. We also monitor the efficiency of our network maintenance program through international benchmarking.

In an environment of high demand for project materials, we realised efficiency gains from the introduction of improved material management processes and technology.

Maintenance on transmission lines, substations and communication sites 2017/18	
98% of planned maintenance delivered	$135.6 million invested

Our targeted maintenance program ensures we continue to deliver safe, cost effective and reliable transmission services.

Contingency planning and emergency response

Powerlink worked cooperatively with relevant state agencies on contingency planning and responded to significant events with potential to impact the transmission network.

Our annual summer readiness program includes identified risk mitigation strategies. Through this process, we worked with AEMO to ensure the availability and capacity of the network to safely and reliably provide power to customers during the summer months. We also undertook a successful readiness program for the Gold Coast 2018 Commonwealth Games to ensure a safe and reliable electricity supply and the security of systems and sites.

We took action to prepare for the potential impacts of severe weather events including Tropical Cyclone Iris which threated North Queensland in April 2018, and three separate flood events in North Queensland in March 2018. These events did not impact our network.

Our interactions with external agencies and our internal processes are directed by our comprehensive emergency management response plans. We tested these response plans through internal and external exercises involving stakeholders including AEMO and jurisdictional representatives from the Queensland Department of Natural Resources, Mines and Energy (DNRME).

Flood damaged towers replaced

Consistent with our commitment to have the network ready for summer 2017/18, we completed the replacement of 19 electricity transmission towers damaged by floodwaters after Tropical Cyclone Debbie which struck Queensland in March 2017. The extent of the impact was the most significant damage ever caused to Powerlink's network by a natural disaster.

The damaged towers on the Nebo to Broadsound transmission line, south-west of Mackay, were replaced with new structures designed for increased resilience to severe weather events. Despite the initial damage and complexity of restoring the towers, supply to customers was maintained throughout the replacement project.

Next generation network operations

Powerlink began a journey to transform the way we operate the transmission network into the future. Our scope involves developing an operational strategic roadmap which includes upgrading our energy management system to equip us with the capability to operate the power system of the future.

Regulated network development

Focus on network reinvestment

We assess committed and future regulated network investments after considering the technical service life of transmission infrastructure and the needs of our customers.

During 2017/18, reinvestment in transmission lines and substations dominated the capital program as we focused on reducing the identified risks arising from assets reaching the end of their technical service life. In assessing the enduring need for assets, we considered a range of options which included network reconfiguration, asset retirement, non-network solutions, operational measures, or replacement with an asset of similar or lower capacity.

We gained stakeholder input into our network reinvestment decision making process through our ongoing stakeholder engagement activities, including the Transmission Network Forum.

Regulated network developments and reinvestments

Before committing to build a new transmission line or substation, or reinvest in an existing transmission line or substation, Powerlink thoroughly assesses the potential alternatives to ensure the decision results in the lowest long-run cost to our customers.

Powerlink is required to apply the RIT-T process when identifying network augmentation solutions and network reinvestment solutions costing more than $6 million. The RIT-T is a transparent, formal consultation process that provides customers, stakeholders and interested parties the opportunity to provide feedback and discuss alternative solutions to address network needs. In 2017/18, Powerlink commenced RIT-T assessments for:

- addressing the secondary systems condition risks at Dan Gleeson Substation
- addressing the secondary systems condition risks at Baralaba Substation
- maintaining reliability of supply to Ingham.

In March 2018, Powerlink was the first TNSP to begin a consultation under the new RIT-T framework with the release of the Project Specification Consultation Report to address secondary systems condition risks at Baralaba Substation.

Under this new framework, we anticipate a significant program of RIT-T assessment, particularly over the next two years.

As identified in AEMO's ISP, Powerlink and TransGrid will initiate a RIT-T process to consider enhancement of the transfer capacity of the Queensland/New South Wales Interconnector (QNI). In 2017/18, we jointly undertook preparatory work for this activity.

Non-network solutions

In certain cases, technically and economically feasible non-network solutions can reduce, defer or even replace the need for future transmission network investments. Non-network solutions may also form part of an overall network reconfiguration strategy when a network asset has reached end-of-life, to assist in achieving the right balance between reliability and the cost of transmission services.

Common types of non-network alternatives include demand side management initiatives which contribute to lowering peak electricity demand, and network support where additional generation is provided during times of peak demand on the electricity network.

Powerlink engages with non-network providers and continues to assess the use of non-network solutions to address the future needs of the transmission network, primarily through the RIT-T process.

Major regulated network projects

Major transmission developments and reinvestments (over $10 million) completed in 2017/18

Region	Project
North Queensland	Garbutt to Alan Sherriff 132kV transmission line replacement
	Moranbah area 132kV capacitor banks
	Proserpine 132kV Substation replacement
Central Queensland	Blackwater 132kV Substation replacement
Southern Queensland	Mudgeeraba 110kV substation replacement

Major transmission developments and reinvestments (over $10 million) under construction in 2017/18

Region	Project
North Queensland	Collinsville to Proserpine 132kV transmission line refit
	Eton Creek to Alligator Creek 132kV transmission line refit
	Mackay 132kV Substation replacement
	Moranbah 132/66kV Substation transformer replacements
	Nebo 275/132kV Substation transformer replacements
	Nebo 275kV Substation replacement
	Ross 275kV Substation secondary systems replacement
	Tully 132kV Substation secondary systems replacement
Central Queensland	Calvale 275/132kV transformer reinvestment
	Calvale and Callide B 275kV Substation secondary systems replacement
	Dysart Substation replacement
	Gladstone to Boyne Island 132kV transmission line refit
	Moura 132kV Substation replacement
	Stanwell 275kV Substation secondary systems replacement
	Wurdong 275kV Substation secondary systems replacement
Southern Queensland	Ashgrove West 110/33kV Substation replacement
	Gin Gin 275/132kV Substation rebuild
	Rocklea 275kV Substation secondary systems replacement
	Tennyson 110kV Substation secondary systems replacement

Community and stakeholder engagement

Corporate citizenship

When carrying out our business activities, Powerlink works closely with landholders, communities, local government and other stakeholders. We demonstrate our good corporate citizenship through our operational performance, stakeholder engagement and community relations activities.

We share information with our stakeholders in various ways and value feedback on our performance. Input from our stakeholders helped to guide the development of our new corporate website which is easier to navigate, communicates more clearly about our services, and helps stakeholders and customers stay informed.

Engagement intent

Our Stakeholder Engagement Framework guides our interactions with individuals and organisations and ensures our engagement is meaningful. We look for opportunities to engage with stakeholders and seek their input to our business processes, objectives and decisions, with the purpose of achieving improved outcomes and mutual value.

2017 Stakeholder perception survey				
	Maximum score achievable	2017 Target	2017 Actual	2016 Actual
Social licence to operate	**5** full trust	**4** high approval	**4.02** high approval	**3.88** low approval
Reputation	**5** very high	**3.6** medium	**3.72** medium	**3.47** medium
Social licence to operate	**5** full trust	**4** high approval	**4.02** high approval	**3.88** low approval
Reputation	**5** very high	**3.6** medium	**3.72** medium	**3.47** medium

In response to our 2017 stakeholder survey results, we focused on improving relationships with customers, local government representatives and landholders, as well as continuing to engage with diverse stakeholders including communities, Traditional Owners, regulators, government, unions and industry groups.

Household Energy Survey

The Queensland Household Energy Survey, conducted in November and December 2017, surveyed more than 4,500 Queenslanders about their household's energy usage, appliance saturation and energy efficient behaviours. Conducted annually since 2009, in conjunction with Energex and Ergon Energy, this survey provides feedback to help Powerlink plan the electricity transmission network and forecast energy usage now and in the future.

The 2017 survey indicated continued concern about electricity prices and growing levels of interest in alternatives to grid-supplied power, such as solar PV, battery storage or moving off the grid completely. This interest is driven by economics and a growing desire for self-sufficiency. Consumers also showed a growing interest in electric vehicles and demonstrated an increase in energy efficient behaviours.

Activities and forums

Powerlink's Customer Panel provided an ongoing face-to-face forum for our stakeholders to give input and feedback on our decision making, processes and methodologies. The panel, comprising members from the energy industry, resource sector, community advocacy groups, consumers and research organisations, met in December 2017 and April 2018. Topics explored by the panel included the changed RIT-T process, AER Rate of Return Guideline Review, Powerlink's asset management strategies and transmission pricing methodologies. We engaged with the panel to finalise a stakeholder engagement matrix for RIT-T projects, which has since been broadly adopted as an industry approach and received positive stakeholder feedback.

We hosted three webinars during 2017/18 to engage with stakeholders on important topics:

- raising awareness of the key changes, processes and impacts on Powerlink's investment program and seeking feedback on our current and proposed stakeholder engagement practices for non-network solutions
- sharing information about Rule changes to the RIT-T and seeking feedback on our processes
- focusing on risk management and seeking feedback on our direction and processes.

Cultural Heritage

Powerlink recognises Aboriginal and Torres Strait Islander peoples as important stakeholders in the development of Queensland's transmission network. We value our relationships with Traditional Owners and meet our obligations under the Queensland *Aboriginal Cultural Heritage Act 2003* and the Queensland *Torres Strait Islander Cultural Heritage Act 2003* by working cooperatively to agree on processes to manage significant Cultural Heritage, recognising Traditional Owners' unique knowledge of the land.

Powerlink also recognises community interest in Historical Heritage and maintains procedures to meet the requirements of the Queensland *Heritage Act 1992*.

Our Cultural Heritage Framework guides the ongoing management of Cultural Heritage throughout the life of our transmission assets, including during the planning and delivery of network reinvestment projects and new network connections. We work cooperatively and innovatively with customers connecting to the network to achieve efficient Cultural Heritage outcomes for the benefit of commercial projects.

Strategic partnerships

Our community relations activities seek to support community initiatives that focus on empowering communities, protecting and conserving the environment, supporting safety and wellbeing, and promoting the energy industry.

We launched a partnership with Townsville City Council to deliver a greening program dedicated to increasing vegetation density and improving habitat for local native wildlife, while promoting water efficiency. The program was developed in response to our Garbutt to Alan Sherriff Transmission Line Replacement project, completed in November 2017. The greening program involved community members in tree planting events, improvements to the high-tech food garden at Heatley Secondary College and revegetating the area near the transmission line.

Planted by Council	1,250
Planted by community	750
Community volunteers	130
Community tree planting events	3

2,000
Trees Planted

Powerlink and the Bulimba Creek Catchment Coordinating Committee (B4C) committed to an ongoing maintenance phase following the completion of joint environmental rehabilitation projects in Wishart in Brisbane, near Powerlink's Runcorn to Belmont and Algester to Runcorn transmission lines.

Powerlink made a further $50,000 commitment to support the Queensland State Emergency Service (QSES) in conjunction with Energex and Ergon Energy by funding new equipment. The equipment, including stretchers, defibrillators, vehicle accessories, lighting and chainsaws, enhances the emergency response capability of groups around the state. Powerlink's support for QSES aligns with our commitment to the safety of communities and employees, and our focus on emergency response.

Powerlink joined industry partners to support the University of Queensland Women in Engineering program, which has promoted a steady increase in women participating in undergraduate engineering studies. We also continue to partner with Engineers Australia, the Planning Institute of Australia, the Local Government Association of Queensland and the Energy Users Association of Australia to achieve mutually beneficial outcomes.

More than 130 community volunteers helped to plant 750 trees.

People

Workforce strategies

We are committed to providing our people with a great work environment; one that is safe, inclusive and supports them to be the best they can be.

We have continued to implement a range of people strategies to better position the organisation, through building a high performance, constructive culture. Our success will be through our people who have exceptional skills and knowledge, and the drive to create a better future for our customers.

Powerlink has undertaken significant reform, which created a sound foundation from which we continued to evolve and adapt. Our total workforce Full Time Equivalent staffing as at 30 June 2018 was 870.

We developed our Industrial Relations Strategy for 2018 to 2021 to be a key enabler for our success. The strategy provides Powerlink with the ability to create step-change through proactive approaches to Industrial Relations, including early and positive engagement with our key stakeholders. This methodology supports a proactive approach to resourcing, to ensure we have the right people, in the right place, at the right time.

Applying a collaborative approach, we negotiated and ratified two new agreements, the *Working At Powerlink Union Collective Agreement 2018* and the *Powerlink Managers Enterprise Agreement 2018*. These agreements, which came into effect on the expiry of the previous agreements, position the business strongly for the future.

Powerlink continued to build on our strong foundation of valuing diversity and inclusion to build our capacity for innovation and productivity, and to deliver high quality services. By seeking to harness different perspectives we will create more opportunities to deliver creative thinking and solutions.

Leadership and business structure

To support our continuing journey of cultural transformation, we developed and implemented a strategy to improve leadership effectiveness and connection with our people. Within this strategy, we focused on developing our leadership capability to meet the demands of the changing context in which we operate.

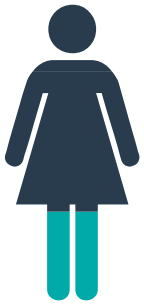
Organisational culture

Our 2017 Culture Survey identified a number of positive improvements and sharpened the focus of our cultural transformation journey. We engaged our people in activities to share the survey findings and further expand the outcomes.

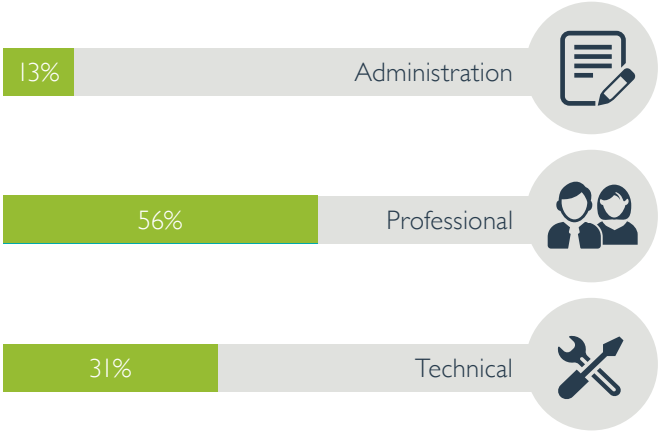
Working with our people, we developed a roadmap that provides us with clear direction for improving our culture. With a focus on engaging, empowering and enabling our people, we continue to transform our culture through our business-as-usual functions, as well as implementing specific programs to accelerate change.

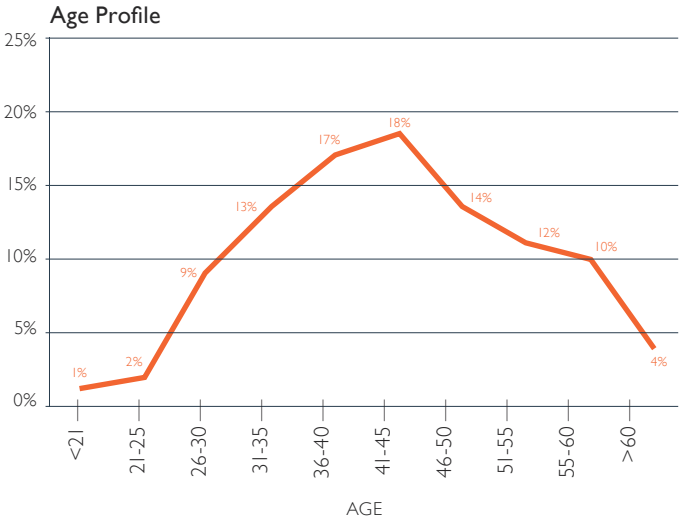
We also engaged our employees in a refresh of our corporate values. The new values, to be launched in 2018/19, will better align to our business plan and our future operating environment.

MALE	
POWERLINK WIDE	75.65%
MANAGEMENT	78.90%
EXECUTIVE	67.00%



FEMALE	
POWERLINK WIDE	24.35%
MANAGEMENT	21.10%
EXECUTIVE	33.00%





Our people are our best asset and providing a great work environment is critical to our success.

Corporate governance

Powerlink Queensland and its wholly-owned subsidiaries operate and are managed within a corporate governance framework which encompasses an appropriate degree of accountability and transparency to all stakeholders.

Corporate governance in Powerlink

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

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

- Minister for Natural Resources, Mines and Energy
- Deputy Premier, Treasurer and Minister for Aboriginal and Torres Strait Islander Partnerships.

The Queensland Government has published its *Corporate Governance Guidelines for Government Owned Corporations* (Guidelines) which includes a *Code of Conduct* and *Conflicts of Interest Best Practice Guide for Government Owned Corporations*. The Guidelines outline the expectations of shareholding Ministers and describe a set of comprehensive corporate governance principles, and proper disclosure and reporting arrangements that are appropriate to GOCs. There were no revisions made to the Guidelines that required changes to Powerlink's corporate governance arrangements in 2017/18.

Corporate governance in Powerlink is managed through a framework of policies approved by the Board and supplemented by supporting standards, procedures and practices developed by management. The corporation commits to these to ensure appropriate accountability and control systems are in place to achieve business outcomes, and 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, setting the strategic direction articulated in Powerlink's Statement of Corporate Intent (SCI) and five-year Corporate Plan.

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 and senior management through regular direct reporting and via established committees.

Details relating to Powerlink Directors, Board Committee composition and meetings in 2017/18 are set out in the Directors' Report.

Board balance	Board tenure		Board diversity	
1 Non-Executive Chair	0–2 years	3	Female	67%
5 Non-Executive Directors	2–4 years	1	Male	33%
	4–6 years	0		
	6–8 years	1		
	8–10 years	1		

Powerlink corporate governance framework

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 2018, were:

- The Honourable Jackie Trad MP, Deputy Premier, Treasurer and Minister for Aboriginal and Torres Strait Islander Partnerships, holding 50 per cent of the A class voting shares and 100 per cent of the B class non-voting shares.
- Honourable Dr Anthony Lynham MP, Minister for Natural Resources, Mines and Energy, 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 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
- monitoring financial outcomes and the integrity of reporting; in particular, approving annual budgets and longer-term strategic and business plans
- endorsing the Statement of Corporate Intent (SCI)
- 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 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 2017/18, Powerlink held 11 formal meetings of Directors, which were supplemented with Flying Minutes. 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

The 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 meets with, and receives reports from, both the internal and external auditors. The Committee also assists the Board in the oversight of financial integrity and legal compliance.

People, Culture and Remuneration Committee

The Committee assists the Board in fulfilling its employer responsibilities by providing governance of key organisational people and culture matters, developing fit-for-purpose organisational policies that support Powerlink's strategic direction and the development of an appropriate organisational culture.

Chief Executive

Executive Team

Executive Committees

- Executive Committee for Environment
- Executive Committee for Corporate Resilience
- Executive Committee for Health and Safety

Corporate Governance Guidelines for GOCs – Queensland Government

Powerlink's corporate governance processes are consistent with the Guidelines 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, a summary of which is available on the Powerlink website (visit www.powerlink.com.au/committees-charter-and-code-conduct), describes the Board's functions and responsibilities, which are to:

- set the corporation's values and standards of conduct and ensure that these are adhered to
- provide leadership of the corporation within a framework of prudent and effective controls which enable risks to be assessed and managed effectively
- in collaboration with management, develop and approve the corporation's direction, strategies and financial objectives, and ensure that all necessary resources are available for the business to meet its objectives
- monitor financial outcomes and the integrity of reporting
- monitor management's performance and implementation of strategy
- ensure an effective system of corporate governance exists.

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

Day-to-day management of the consolidated entity's affairs and the implementation of the corporate strategy and business initiatives are formally delegated by the Board to the Chief Executive and senior management, as set out in the delegations policy. These delegations are reviewed as considered necessary.

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 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 2018, the Board comprised six independent non-executive Directors. All Directors are appointed by the Government in accordance with the GOC Act. There was a change to Powerlink's Directors in 2017/18:

- New Director Lorraine Stephenson was appointed in October 2017.

Details of the skills and experience of each current Director are presented separately in the Board of Directors section of this Annual Report. The table below provides an overview of the significant strengths of the current Directors.

	Finance and commercial	Government and stakeholder relations	Business strategy development	Corporate governance and risk management	Industry knowledge	Human resources and industrial relations
Julie Beeby	•		•	•	•	•
Peter Hudson	•	•	•		•	
Julie Martin				•	•	
Alan Millis		•	•	•	•	
Sarah Zeljko		•	•	•		•
Lorraine Stephenson		•	•	•	•	

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 Chair, 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 are considered to be independent. No Directors are considered to have material supplier or customer relationships with the corporation. A pre-determined 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, through a self-assessment by the Directors and input from the Chief Executive and Company Secretary, 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.

In addition to business operational and performance matters, the Board specifically considers at each meeting key issues relevant to the business, including safety, environment, stakeholder engagement and corporate governance.

In addition to the 2017/18 Board meetings, the Board held Strategic Planning and Risk Workshops.

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

The Board, having undertaken its annual self-assessment for 2017/18, concluded that it is fulfilling its role with no obvious gaps in its performance, and that there was good interaction and relations with both shareholding Ministers and Powerlink management.

A structured internal process is 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 provides input to a Share Trading Standard, a summary of which is also available on the Powerlink website (visit www.powerlink.com.au/our-publication-scheme > Our policies). The primary purpose of this standard 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.

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
- the Powerlink People, Culture and Remuneration Committee.

These Committees have documented mandates that are reviewed on a regular basis, at least every two years. The membership of both committees consists of non-executive Directors. Details of Committee members at 30 June 2018, number of meetings during the year and attendance are presented in the Directors' Report.

Audit, Risk and Compliance Committee	
Chair:	Mr Alan Millis
Members:	Dr Lorraine Stephenson and Ms Sarah Zeljko (from December 2017)

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 meets with, and receives reports from, both the internal and external auditors over the duration of the financial year.

The Committee is responsible for considering the annual statutory financial statements for subsequent consideration and 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 processes the Chief Executive and the Chief Financial Officer have in place to support their certifications to the Board are also considered by the Committee.

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

People, Culture and Remuneration Committee	
Chair:	Ms Julie Martin
Members:	Dr Julie Beeby and Mr Peter Hudson (from December 2017)

The Committee assists the Board in fulfilling its employer responsibilities by providing governance of key organisational people and culture matters, and developing fit-for-purpose organisational policies that support Powerlink's strategic direction and the development of an appropriate organisational culture.

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 Annual Report, regulatory reports, Powerlink website and other public disclosures.

Principle 6: Respect the rights of shareholders

The Powerlink Board has a communication framework 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 its SCI and five-year Corporate Plan, reflecting the outcomes of a comprehensive strategic and business planning process involving the Board and the Executive. Both documents are presented to shareholding Ministers.

Quarterly progress reports on the performance against the SCI are prepared by the Board and are submitted to shareholding Ministers.

Principle 7: Recognise and manage risk

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

An Executive Committee structure also operates in parallel with the Board Committees to address issues of health and safety, environmental management and corporate resilience. Each of these Executive Committees submits reports to the Audit, Risk and Compliance Committee, or the People, Culture and Remuneration Committee through the Chief Executive.

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

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

The Executive Committee for Corporate Resilience has governance over the development, approval and improvement of Powerlink's approaches to security management and the management of significant emergencies.

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 and corruption control framework that is closely integrated with the corporation's enterprise information management systems.

Powerlink's Code of Conduct documents aim to ensure that Powerlink employees and those carrying out work for Powerlink perform their work cost effectively, efficiently, cooperatively, honestly, ethically and with respect and consideration 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, recognising the benefits of diversity, and investing in that person's potential through further training and development.

The membership and responsibilities of the Board's People, Culture and Remuneration Committee 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 world class electricity transmission network; and
- reward and provide incentives for exceeding the key business performance targets.

The *Working at Powerlink 2018 Union Collective Agreement* was effective from March 2018, and the Powerlink Managers Enterprise Agreement 2018 was effective from January 2018. The Agreements allow for Powerlink and its employees to respond to targets agreed with our shareholding Ministers. They continue to focus Powerlink on developing a competitive and efficient workplace. They recognise that the economic health of the corporation and the wellbeing of all employees depend upon the success of a shared commitment by all parties to these Agreements.

The remuneration policy provides for performance-based payments for all permanent employees, with the payments directly linked to the performance of the individual against pre-agreed performance targets and the performance of the business.

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 and stretch targets being achieved.

Performance pay is based on individual performance targets, which are reviewed at least half yearly and rated at the end of the annual performance cycle. The individual performance targets are aligned with the overall business stretch 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 Employment Cost (TEC), which includes employer superannuation contributions. In order to promote management focus, the remuneration policy provides for performance-based payments dependent on the performance against pre-agreed business and individual targets. The TEC level is reviewed annually based on consideration of economic and individual capability factors.

The fees paid to Directors for serving on the Board and on the Committees of the Board are determined by shareholding Ministers. Directors also receive reimbursement for expenditure incurred in performing their roles as Directors.

Shareholding Ministers' directions

There were no shareholding Ministers' directions in 2017/18.

Corporate entertainment and hospitality

The *GOC Corporate Entertainment and Hospitality Guidelines* establish reporting requirements for GOCs. Powerlink's corporate entertainment and hospitality expenditure for 2017/18 totalled $15,677. There were no events above the individual reporting threshold of $5,000.

Board of Directors

Dr Julie Beeby

BSc (Hons 1), PhD (Physical Chemistry), MBA, FAICD

Chair of the Board (Appointed to Chair December 2014, Board Member since 2008)

Julie has worked in the minerals and petroleum industries for more than 25 years, for major Australian and United States resources companies, including recently as Chief Executive Officer of WestSide Corporation, an ASX listed, Queensland-based coal seam gas company.

Julie commenced her career in mineral processing research. She developed her technical, strategic and business skills through successful executive positions in chemical plant, coal seam gas, explosives and mining.

Julie is currently a non-executive director of Whitehaven Coal Ltd and Moreton Bay Colleges, and previously held non-executive director positions on ASX listed companies, industry associations and research organisations.

Julie is a member of the Powerlink Board's People, Culture and Remuneration Committee.

Peter Hudson

BA, GAICD, CA

Director (Appointed 2016)

Peter has extensive experience in the energy, mining, transport and telecommunications sectors, as well as providing due diligence assistance to large domestic and international businesses for acquisitions, disposals and capital markets transactions.

Previously, Peter was a partner at global advisory firm KPMG where he primarily focused on government privatisations including assisting the Queensland Government's sale of QR National, Abbott Point Coal Terminal and Forests Queensland. He also worked with the South Australian Government in selling Forestry SA and the New South Wales Government in its sale of generator assets.

Peter is a non-executive director of Youngcare Limited and member of the Powerlink Board's People, Culture and Remuneration Committee.

Julie Martin

BE (Hons), MIEAust, CPEng NER, GAICD

Director (Appointed 2011)

Julie has over 20 years' experience as an electrical engineer, having played a key role in various large-scale infrastructure projects within Australia and internationally. She is currently the General Manager (QLD, WA, NT, PNG) at EIC Activities, the CIMIC Group's engineering and technical services business. Previously, Julie held senior roles responsible for delivering high voltage infrastructure and traction substations. Julie's extensive experience includes key design, project engineering, management and commissioning roles on rail projects.

Julie was recognised with the Queensland NAWIC 2016 Award for Achievement in Construction (General Building).

Julie is the Chair of the Powerlink Board's People, Culture and Remuneration Committee.

Alan Millis

BE (Hons), MEngSc, BEcon, DipCompSc, GAICD

Director (Appointed 2015)

Alan has more than 40 years' experience in the energy sector with management roles covering corporatisation of the Queensland Energy Government Owned Corporations, general energy policy, development of the national energy markets, energy market trading and risk management.

Alan has held a number of senior executive roles, including General Manager and Deputy Director General within the Queensland Government departments responsible for energy, as well as the role of Queensland Energy Regulator.

Alan has a detailed knowledge of the operational and regulatory environment of the Queensland and national electricity sectors and the issues they face going forward.

Alan is the Chair of the Powerlink Board's Audit, Risk and Compliance Committee.

Dr Lorraine Stephenson

BSc (Hons), PhD, MBA, FTSE, GAICD

Director (Appointed 2017)

Lorraine has more than 35 years of technical, policy and managerial corporate experience with a strong strategic focus on the energy sector. Owner of Lightning Consulting Services, Lorraine works with clients to mitigate risks and create opportunities to respond to climate change challenges, including options to drive investments in low emission technologies and abatement options.

Lorraine is a Member of the Victorian Government's Interim Targets Expert Panel, non-executive director of Good Environmental Choice Australia, and Member of the NSW Climate Change Council. She was formerly the Chief Clean Energy Advisor to the Queensland Government. Lorraine is a member of the Powerlink Board's Audit, Risk and Compliance Committee.

Sarah Zeljko

LLB, GAICD

Director (Appointed 2016)

Sarah has extensive executive, legal and company secretary experience across large government, ASX listed and private corporations in the infrastructure, energy, water, mining, manufacturing and education industries. In particular, Sarah has led a range of Boards and Board Committees through events of significant strategic and operational change.

Sarah specialises in the areas of corporate governance, risk management, compliance, commercial negotiations and strategy, and has been involved in significant merger and acquisition work. Sarah is currently a director with Energy Super and volunteers on two not-for-profit boards.

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

Executive Team

Merryn York

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

Chief Executive

Merryn has more than 25 years' experience in the Queensland electricity industry. Her 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.

Merryn attends the Powerlink Board's Audit, Risk and Compliance Committee, and the People, Culture and Remuneration Committee meetings.

Dr Stewart Bell

BEng, PhD (Electrical), MBA, CEng, FIET, RPEQ

Executive General Manager Delivery and Technical Solutions

Stewart has more than 25 years' experience in the electricity industry, including management roles in operations, project delivery and asset investment.

Stewart is responsible for Powerlink's asset management strategies and standards, all aspects of Powerlink's capital works program, and the acquisition and management of land and property, including landholder relations.

Gary Edwards

BBus, AssocDipElecEng

Executive General Manager Operations and Service Delivery

Gary is an experienced senior leader with more than 35 years' experience in technical and leadership roles within the energy industry.

Gary is responsible for delivering Powerlink's state-wide operations including 24/7 real time operations, all field maintenance, telecommunication services, operational technology, and laboratory and warehousing services.

Cathy Heffernan

GradCertLegalSt, Qualified Workplace Investigator, Qualified Mediator

Executive General Manager People and Corporate Services

Cathy has more than 25 years' experience across human resources, change management, customer and corporate services, and health, safety and environment functions.

At Powerlink, Cathy leads the people and culture, business information technology, communications, and health, safety and environment functions.

Kevin Kehl

BE(Hons), GradCertElecSupplyEng, GAICD

Executive General Manager Strategy and Business Development

Kevin is an experienced senior executive with more than 30 years' involvement in the electricity industry, across the networks sector.

Kevin leads Powerlink's strategy, business planning, network regulation, business development, customer management, network portfolio and business resilience functions.

Darryl Rowell

BCA, MBA, FCPA

Chief Financial Officer

Darryl is an experienced executive in both Australia and New Zealand with a background in both private and public sectors, including the energy industry. Prior to joining Powerlink in January 2018, Darryl was the Chief Financial Officer at Queensland Urban Utilities.

At Powerlink, Darryl manages all finance, tax, treasury, investment analysis, contract management, internal audit, insurance, and legal, business and risk services. He is also Powerlink's Company Secretary.

Statistical summary

Substations/switching stations and transformers added in 2017/18

Voltage	Substations		Transformers		
	Total number	Location	Total number	Total Rating (MVA)	Location
330kV	0		0		
275kV	0		0		
132kV	1	Springlands	2	130	Springlands
110kV	0		0		
Total	**1**		**2**	**130**	

Substations/switching stations and communication sites as at 30 June 2018

Voltage	Substations	Cable transitions	Communication sites
330kV	4	0	
275kV	43	1	
132kV	79	3	
110kV	14	5	
66kV	0	1	
Total	**140**	**10**	**85**

Capacitor banks, shunt reactors and Static VAr Compensators added in 2017/18

Voltage	Capacitor banks		Reactors		SVCs		Location
	Total	MVAr	Total	MVAr	Total	MVAr	
330kV	0	0.0	0	0.0	0	0.0	
275kV	0	0.0	0	0.0	0	0.0	
132kV	0	0.0	0	0.0	0	0.0	
110kV	-1	-50	0	0.0	0	0.0	Mudgeeraba #4 capacitor
Total	**-1**	**-50**	**0**	**0.0**	**0**	**0.0**	

Capacitor banks, shunt reactors and Static Var Compensators as at 30 June 2018

Voltage	Capacitor banks		Reactors		SVCs	
	Total	MVAr	Total	MVAr	Total	MVAr
330kV	3	440	4	144	0	0
275kV	28	3880	18	846	8	2510
132kV	35	1555	0	0	15	1881
110kV	32†	1775.2	0	0	0	0
66kV*	5	96	2	42.4	0	0
Total	**103**	**7746.2**	**24**	**1032.4**	**23**	**4391**

* equal to or less than 66kV † decommissioned Mudgeeraba #4 Capacitor

Circuit breakers as at 30 June 2018

Voltage	Total number
330kV	30
275kV	513
132kV	554†
110kV	270†
66kV*	24
Total	**1391**

* equal to or less than 66kV
† minor data correction in source system from previous years

Circuit breakers added in 2017/18

Voltage	Circuit breakers	Location	
330kV	0		
275kV	0		
132kV	2	Clare South (+1), Mackay (-7), Moura (+5),	Nebo (+1), Ross (+1), Strathmore (+1)
110kV	0		
66kV*	0		
Total	**2**		

* equal to or less than 66kV

Transmission lines and underground cables added in 2017/18				
Voltage	Transmission line		Underground cable	
	Route km	Circuit km	Route km	Circuit km
330kV	0	0	0	0
275kV	0	0	0	0
132kV	-9*	-18*	0	0
110kV	0	0	0	0
66kV	0	0	0	0
Total	**-9**	**-18**	**0**	**0**

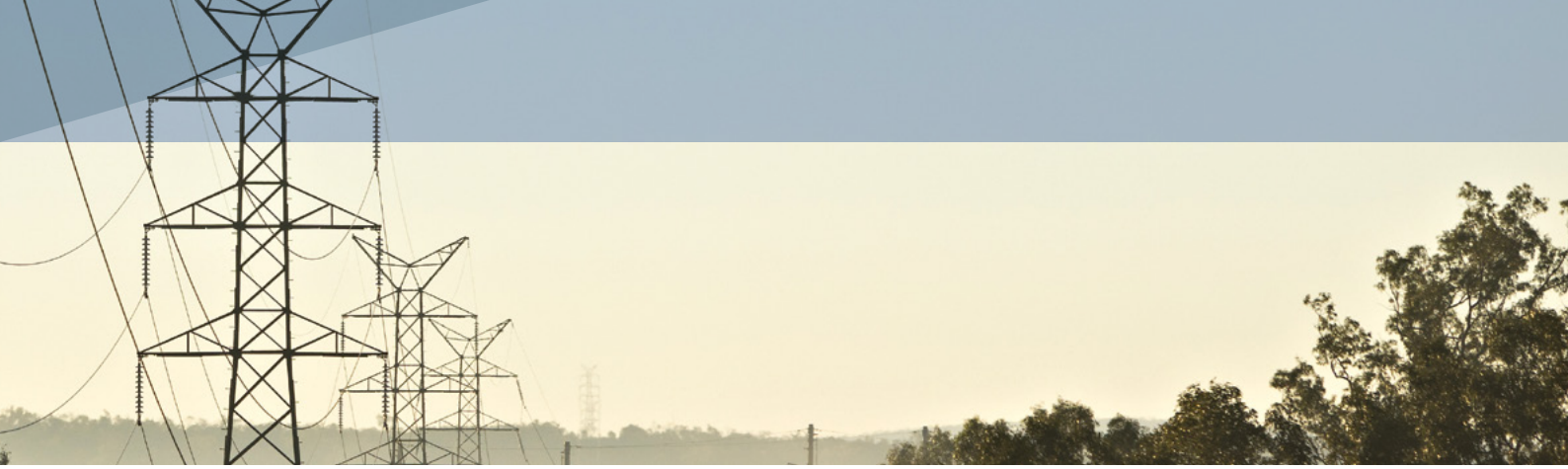
* Garbutt to Alan Sherriff transmission line rebuilt. Mackay to Proserpine transmission line partially decommissioned. Garbutt to Alan Sherriff transmission line #2 decommissioned.

Five-year history of transmission lines and underground cables as at 30 June 2018										
Voltage^	2014		2015		2016		2017		2018	
	Route km	Circuit km	Route km	Circuit km	Route km	Circuit km	Route km	Circuit km	Route km	Circuit km
Transmission lines										
330kV	348	696	348	696	348	696	348	696	348	696
275kV	6512	9419	6557	9509	6693	9781	6693	9781	6693	9799†
132kV	2841	4564	2787	4458	2867	4616	2769	4420	2760	4402
110kV	215	413	215	413	215	413	215	413	215	413
66kV*	4	4	4	4	4	4	4	4	4	4
Total lines	**9920**	**15096**	**9911**	**15080**	**10127**	**15510**	**10029**	**15314**	**10020**	**15314**
Underground cables										
275kV	10	10	10	10	10	10	10	10	10	10
132kV	4	4	4	4	4	4	4	4	4	4
110kV	8	8	8	8	8	8	8	8	8	8
66kV*	1	1	1	1	1	1	1	1	1	1
Total cables	**23**	**23**	**23**	**23**	**23**	**23**	**23**	**23**	**23**	**23**
Total lines & cables	**9943**	**15119**	**9934**	**15103**	**10150**	**15533**	**10052**	**15337**	**10043**	**15337**

* equal to or less than 66kV
^ as constructed voltages
† minor data correction in source system from previous years

Index and abbreviations

TERM	ABBREVIATION	PAGE
Australian Energy Market Commission	AEMC	ii, 9, 10
Australian Energy Market Operator	AEMO	ii, 9, 10, 12, 13
Australian Energy Regulator	AER	ii, 1, 2, 9, 10, 11, 14
BHP Mitsui Coal	BMC	8
Bulimba Creek Catchment Coordinating Committee	B4C	15
Capital Expenditure		2, 11
Capital works		3, 11, 23
Council of Australian Governments	COAG	ii, 9
Customer Panel		14
Cultural Heritage		14
Demand		4, 9, 10, 11, 13, 16
Department of Environment and Science	DES	6
Department of Natural Resources, Mines and Energy	DNRME	12
Distribution Network Service Provider	DNSP	ii, 10
Dividend		2, 3, 4
Earnings Before Interest and Tax	EBIT	1, 2, 3
Energex		ii, 1, 14, 15
Energy Networks Australia	ENA	10
Energy Security Board	ESB	ii, 9
Energy Queensland		1
Energy Users Association of Australia		15
Engineers Australia		15
Ergon Energy		ii, 1, 14, 15
Finkel Review		9, 10
Fotowatio Renewables Ventures	FRV	7
Government Owned Corporation	GOC	ii, 1, 17, 18, 19, 21, 22
Greenhouse		6
Industrial Relations Strategy		16
Integrated System Plan	ISP	4, 9, 10, 13
International Transmission Operations and Maintenance Study	ITOMS	1, 10



TERM	ABBREVIATION	PAGE
Local Government Association of Queensland		15
Lost Time Injury Frequency Rate	LTIFR	3, 5
Maintenance		1, 3, 8, 10, 11, 12, 15, 23
Maximum Allowed Revenue	MAR	9
National Electricity Market	NEM	ii, 1, 4, 8, 9, 11
National Electricity Rules	NER	ii, 1, 4, 9
National Energy Guarantee	NEG	9
Net Profit After Tax	NPAT	2, 3, 4
Network performance		3, 10
Planning Institute of Australia		15
Queensland Energy Security Taskforce	QEST	8
Queensland State Emergency Service	QSES	15
Rate of Return		14
Reliability		1, 3, 4, 9, 10, 11, 13
Renewable energy		2, 3, 9, 10
Renewable generation		ii, 1, 4, 7, 10, 11
Regulatory Investment Test for Transmission	RIT-T	4, 10, 13, 14
Rule change		4, 9, 10, 14
Safe for Life		5, 6
Statement of Corporate Intent	SCI	1, 2, 3, 10, 17, 18, 20
Service Target Performance Incentive Scheme	STPIS	10
Sulphur Hexafluoride	SF_6	6, 8
Total Employment Cost	TEC	21
Total Recordable Injury Frequency Rate	TRIFR	3, 5, 6
TransGrid		10, 13
Transmission Annual Planning Report	TAPR	10, 11
Transmission Network Service Provider	TNSP	ii, 1, 10, 13
Transmission pricing		9, 14
Weighted Average Cost of Capital	WACC	2

Contact us

Registered office	33 Harold St Virginia Queensland 4014 Australia ABN 82 078 849 233
Postal address	PO Box 1193 Virginia Queensland 4014 Australia
Telephone	+61 7 3860 2111 (during business hours)
Email	pqenquiries@powerlink.com.au
Website	www.powerlink.com.au
Social media	