

Dalby Central Substation (\$13 million). Works will also be carried out to augment substations at Kilkivan (\$4 million) and Roma (\$8 million).

Other major projects include a new \$16 million substation at Highfields, along with a \$22 million zone substation at Kearneys Spring in Toowoomba and the establishment of a new \$7.1 million bulk supply substation at Oakey. Project works have begun at Ballendean, with funds allocated for the acquisition of a new substation site.

In Childers, a \$7.5 million substation rebuild, including refurbishment of the 66kV switchyard and augmentation of 66/11kV transformer will begin, along with refurbishment of the 66kV switchyard and installation of additional larger transformers at Gayndah Substation (\$7 million). A new substation will also be built at Mundubbera at a cost of \$15 million and a \$30 million project to reinforce the Childers-Gayndah 66kV line network will also commence.

Major customer connections will continue with projects at Kogan for Arrow Energy (\$13 million) and at Burnett Hydro (\$2.7 million).

Going forward, these projects will ensure we are able to meet the region's growing electricity demand, as well as deliver improvement in our network performance and enhance our operational platform.

### Customer Service 13 10 46

7.00am – 6.30pm Monday to Friday

### Faults Only 13 22 96

24 hours a day, 7 days a week

### Life-Threatening Emergencies Only 000 or 13 16 70

24 hours a day, 7 days a week

If you would like to discuss any of the initiatives outlined in this or the Annual Report, or any concerns you may have regarding power supplies in our Southern Region, please don't hesitate to contact us on 13 10 46.



David Heberlein, Manager Regional Services Southern  
Paul Jordan, General Manager Operations Southern

## ABOUT THE SOUTHERN REGION SUPPLY AREA

The Southern Region comprises Wide Bay-Burnett and South West Queensland.

### WIDE BAY-BURNETT

This area extends from Nanango in the south-west to Bundaberg in the north, and includes the major provincial centre of Maryborough and the coastal area of Hervey Bay. In the Burnett area are the rural centres of Kingaroy, Gayndah and Mundubbera as well as the Tarong coal-fired power station. As well as the distribution network, Ergon Energy owns and operates a 132kV transmission network in Wide Bay-Burnett between the Woolooga, Kilkivan, Maryborough, Isis, Bundaberg and Gin Gin Substations and also owns and operates the 132/66kV Kilkivan, Maryborough, Isis and Bundaberg Substations. Presently this 132kV network operates in parallel with Powerlink Queensland's 275kV transmission network between the Woolooga and Gin Gin 275/132kV Substations. Ergon Energy also owns and operates the 132kV radial lines supplying the QR substations at Mungar and Clayton.

The Wide Bay-Burnett network covers five geographic areas as follows:

**Maryborough Area** - includes the provincial city of Maryborough and rural communities of Howard to the north, Owanilla, Gootchie and Woolooga to the south-west and the Hervey Bay coastal area centred on Pialba and Torquay. The area is serviced by nine zone substations which are supplied from the Maryborough 132/66kV Substation. The 66kV network extends north to the Isis 132/66kV Substation and south-west to the Kilkivan 132/66kV Substation and is operated with normally open points at these substations.

**Isis Area** - covers the rural communities of Childers, Farnsfield, Gayndah, Mundubbera and Eidsvold west of Maryborough and is serviced by eight zone substations. Apart from the Givelda Zone Substation, which takes 66kV supply from the Bundaberg 132/66kV substation, the other zone substations take 66kV supply from the Isis 132/66kV Substation.

**Bundaberg Area** - centres around the provincial city of Bundaberg and takes in the smaller rural communities of Givelda, South Kolan, Wallaville, Gooburrum and Meadowvale, as well as the coastal communities of Bargara and Burnett Heads. The area is serviced by 11 zone substations supplied from the Bundaberg 132/66kV Substation.

**Kilkivan Area** - this area lies south-west of Maryborough and takes in the rural communities of Kilkivan, Goomeri, Murgon, Wondai and Proston and is serviced by three zone substations supplied from the Kilkivan 132/66kV Substation. A 66kV ring exists connecting the Kilkivan and Murgon Substations. A 66kV line also connects with the Kingaroy Substation.

**Kingaroy Area** - situated south-west of Kilkivan and centred around the rural town of Kingaroy, this area takes in the rural communities of Nanango, Yarraman and Melrose. The area is serviced by nine zone substations with the 66kV supply originating from the Tarong Power Station located in the area. A 66kV line connects the Kingaroy Substation with the Murgon Zone Substation that is supplied from the Kilkivan 132/66kV Substation.

### SOUTH WEST QUEENSLAND

The South-West region commences at Toowoomba in the east (west of the Energex region boundary) and extends west to the South Australian border. South-West regional centres include the cities and surrounding environs of Toowoomba and Warwick, extending south to Stanthorpe. The southern boundary of the region is predominantly the NSW border (Country Energy supplies the region around Goondiwindi). The South-West region consists of three main geographic areas as follows:

**Toowoomba and Warwick Area** - this area is serviced by the Middle Ridge 330kV/275kV/110kV connection point. Ergon Energy takes supply at 110kV from the Powerlink Queensland-owned Middle Ridge connection point. Our 110kV lines supply South Toowoomba, Torrington, Yarranlea, Warwick and Stanthorpe 110kV Bulk Supply Substations. A number of 33kV/11kV zone substations are then supplied from these bulk supply points. In addition, Ergon Energy takes supply at 33kV from the Energex-owned Postman's Ridge Substation.

**Dalby/Chinchilla Area** - this area is situated to the north-west of Toowoomba and covers the towns and surrounds of Dalby and Chinchilla, including south to Meandarra, north to Wandoan and west to about halfway between Miles and Roma. Dalby Substation is supplied via two Ergon Energy-owned, single-circuit 110kV transmission lines from Powerlink Queensland's Tangkam 110kV switching station. Chinchilla Substation is supplied by a double-circuit 132kV line from Powerlink Queensland's Tarong switchyard (132kV from Chinchilla supplies Roma Substation). A 132kV/110kV transformer supplies the Chinchilla 110kV bus, which supplies the two 110kV/33kV bulk supply point transformers. A 110kV single-circuit line from Dalby to Chinchilla provides back-up supply to the single 132/110kV transformer.

**Roma and Western Area** - the Roma and Western network extends from Roma west to take in the towns of Charleville, Quilpie, Thargomindah and Cunnamulla and south to include the St George and Dirranbandi areas. The Roma Substation is supplied via a double-circuit 132kV line from Chinchilla Substation. A 132kV/66kV transformer at Roma Substation supplies 66kV feeders to St George Substation and Charleville Substation. Charleville Substation is supplied from a 66kV feeder from Roma Substation. Cunnamulla Substation is supplied via the Charleville 66kV line.

Further information about our network initiatives, as well as network constraints, is available in our Network Management Plan [www.ergon.com.au/annualreport](http://www.ergon.com.au/annualreport)

VIS.

Female

DELIVERING TO QUEENSLAND'S SOUTH 2005/06



everything in our power





**'We need them as our partners ... to help us keep ahead of the development in our region.'** *Mayor Ted Sorensen - Hervey Bay City Council*

## southern region report

### Keeping the community informed

This report summarises our performance for 2005/06 from our Annual Report, with additional information regarding specific progress across Southern Queensland. We also outline our major capital projects for 2006/07.

Our aim is to provide transparency in reporting our challenges and strategic response through these public reports, which, along with our other stakeholder engagement activities, create an opportunity for a greater understanding of Ergon Energy's operations.

### Ergon Energy achievements 2005/06

Our Annual Report showcases our response to the devastation of Cyclone Larry, highlighting the effectiveness of Ergon Energy as an organisation, as well as progress made in our summer preparedness, disaster management planning and the success of cyclone area reliability enhancements.

We delivered a record capital investment program during 2005/06 of more than \$700 million across regional Queensland, significantly increasing the capacity of our electrical infrastructure and undertaking double the level of customer requested work from three years ago. We also report on the delivery of our service promises and the substantial boost to our capabilities in

this area. Tribute is given to the successes of the retail business and we explain our response to the changes taking place regarding retail contestability and the restructuring of the electricity industry.

We are also very proud to announce an outstanding safety performance, with Ergon Energy No.1 among the 16 energy companies in Australia that use Lost Time Injury Frequency Rate (LTIFR) as a performance measure. With around 4,000 employees across Queensland, as well as a strong contractor base, we believe the safety of our people and the community must always come first.

Our safety success also enhances our reputation as an 'employer of choice' and aligns with our commitment to the development of Queensland's regional skills base.

With the launch of our first stand-alone Sustainability Report, we also affirm our commitment to the principles of sustainability. The report explores how we are making an economic contribution to regional Queensland, as well as meeting our environmental responsibilities and supporting the communities where we live and serve.

### Delivering across our Southern Region

Ergon Energy has three geographical operating regions. This report focuses on our Southern Region, which services Wide

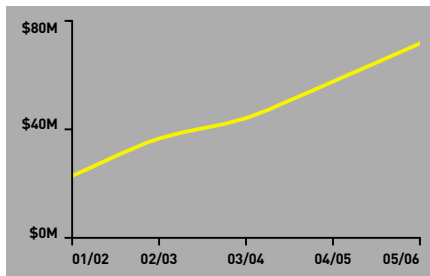
Bay-Burnett and inland to the Darling Downs and Southern Queensland. This vast region includes the coastal centres of Bundaberg, Maryborough and Hervey Bay, across to the inland cities of Toowoomba, Dalby and Warwick and further west to towns such as Chinchilla, Roma and Charleville. The region is served by an Ergon Energy workforce of around 1,800, including field workers, administrative and managerial staff, apprentices and contractors.

In our Southern Region, our 2005/06 capital investment program included establishing new substations and major network improvements, as well as significant customer-initiated works, to expand and upgrade our network.

The major projects completed within the region in 2005/06 included a new 132kV powerline to Goondiwindi at a cost of \$30 million, upgrades to Toowoomba's Torrington Substation (\$1.5 million), a \$3 million project to install a new 70MVA transformer at Hervey Bay's Torquay Substation, the establishment of new substations at Point Vernon (\$9 million) and Bargara (\$11 million) and a \$2.6 million transformer augmentation at Bundaberg's bulk supply substation. Ergon Energy also developed a \$23 million electricity co-generation plant in partnership with Isis Central Sugar Mill, as well as commenced associated network upgrades at a cost of \$11 million.

As part of Queensland's current development boom, we are experiencing significant demand for new customer connections across our Southern Region, particularly in the Hervey Bay and Bargara areas and in and around Toowoomba. The continued growth in these areas is a main driver of the region's capital works program.

**Unprecedented development across our Southern Region has seen customer-initiated works grow dramatically in recent years**



To meet this steep increase in customer-initiated works, we have focused significant resources in this area. The process from application through to final connection has also been reviewed with changes made to better co-ordinate and improve our performance. We also deployed 'contestability' for subdivision works, allowing developers to use contractors for the design and construction phases. Further improvements are under way in this regard.

To support reliability improvement, we delivered a record maintenance program throughout 2005/06, including extensive asset inspection and defect remediation, and a more effective vegetation management program. Importantly for this region, reliability and quality of supply improvements were also targeted across our SWER (Single Wire Earth Return) network, which services much of western Queensland, including areas in and around Augathella, Charleville, St George, Goondiwindi and Thargomindah. This year, as part of a state-wide \$120 million five-year SWER improvement program, we installed 'smart' supply quality monitoring units at regional sites across the network to improve our quality of supply response.

Heading into the 2005/06 summer period, we enhanced our preparedness with projects to improve network resilience and increase capacity to cope with summer peak demand.

Our overall Summer Preparedness Plan prioritises work projects, such as vegetation management and contingency planning, to minimise the risks of supply interruptions to customers during the high-demand summer storm period. The effectiveness of these plans was demonstrated by our response to a severe storm impact on the network in the Pittsworth area in October 2005.

Work also continued, as part of a two-year state-wide \$58 million program known as LINK, to improve our network monitoring and response capability. This work includes an investment in control centres in Townsville and Rockhampton to operate a state-of-the-art network control system, as well as targeted improvements to communication facilities in Maryborough, Toowoomba, Mackay and Cairns

**Investing in future outcomes**

In 2006/07, Ergon Energy's state-wide capital expenditure program will remain at record levels. This year's planned \$700 million program includes an investment of around \$155 million in the Southern Region for system improvements and expansion, along with other state-wide programs that will directly benefit the region. As well, the ongoing development of the Southern Region Recovery Plan - which takes an holistic view of our system - will ensure that load growth, network design and other factors are more effectively incorporated in the development of our short and long-term works programs.

We are delivering several major projects to reinforce supply to the Hervey Bay - Maryborough area. Over the next five years, a series of projects totalling around \$200 million is planned to upgrade and augment the 132kV network that forms the backbone of the supply to the Fraser Coast area. These projects include the establishment of a new switching station at Aramara, along with a dual-circuit 132kV powerline to supply Nikenbah and the augmentation of the Maryborough Bulk Supply Substation. We are also planning to reinforce the distribution network in Bundaberg by constructing a new substation in the city at a cost of \$11 million.

Customers in Chinchilla will benefit from the redevelopment of the town's substation at a cost of \$8.5 million. An additional 33kV connection is proposed for the North Street Substation in Toowoomba at a cost of \$5 million and supply to the Pampas area near Pittsworth will be reinforced at a cost of \$3.2 million. Work is due to start at the end of 2006 on control system replacement at the St George Substation, an ongoing project that will cost approximately \$4.5 million. Warwick customers will reap the benefits of a program of works that will cost more than \$30 million to improve the 110kV supply lines from Toowoomba and an upgrade to the bulk supply substation at Warwick. In Dalby, supply will be reinforced following two major projects, one to rebuild the bulk supply substation at Dalby (\$20 million), and the other to rebuild the



**The new \$9 million Point Vernon Substation was commissioned in April as part of a record capital investment program in this region.**

*Ergon Energy General Manager Operations Southern Paul Jordon and Tenix Alliance Acting CEO Michael Waymark outside the new facilities.*