

Powering energy to the region

By HELEN WALKER

THE Chinchilla region is a vibrant, friendly place in which to live and work, with a wide range of activities, events and attractions that are enjoyed by locals and visitors alike. The town of Chinchilla itself boasts many services and amenities, while retaining its rustic charm and character.

The Chinchilla region of Dalby Regional Council situated less than 300km west of Brisbane is prosperous in primary production of agriculture, wool growing, timber resources, horticulture as well as the recent developments in energy, coal and coal seam gas explorations.

Chinchilla is ideally situated in the middle of the Surat Basin – a coal-rich area that stretches from Toowoomba to beyond Roma – and for the past three years has seen major growth and development because of exploration permits granted for coal mining, the exploration for coal and gas, the development of coal seam gas, underground coal gasification, and the establishment of new power stations.

CS Energy's Kogan Creek Power Station and Coal Mine was originally suggested in the early 1990s, and proposed again in 2000 only to be mothballed, the completed Kogan Creek Power Station was commissioned and handed over to CS Energy in December 2007. Situated approximately 25km from Chinchilla, towards Brigalow, this power station will meet the growing demands of national electricity market consumers, delivering 750 megawatts of electricity via a 28km transmission line into Queensland and NSW distribution networks.

It operates as a base load power station, generating electricity 24 hours a day, seven days a week. CS Energy also owns the 380 million tonne Kogan Creek coal deposit which is operated by Peabody Coal, supplying the power station with around 2.8 million tonnes of black coal annually via a 4km conveyor belt.

The station delivers higher production efficiency and reduced environmental impact, and uses 90pc less water than a conventional wet-cooled station. Kogan Creek 'B', originally proposed in late 2005, will be a replica of the first and located on the same site.

However, ClimateSmart 2050 policy now dictates that new coal-fired power stations must be carbon capture ready and CS Energy is working on this through its low emission coal project at Callide.

Kogan Creek B has been designed so that when low emission coal technol-

ogy is proven it can be retrofitted to the plant. Preparatory work has been done and CS Energy is currently seeking permission from the Queensland Government to proceed with the project. Work may begin as early as 2009.

A number of coal seam gas energy companies are active in the areas surrounding Chinchilla in their quest for coal seam gas for use in gas-fired power stations, as gas suppliers for the domestic and export markets, or for gas-to-liquid projects. Queensland Gas Company is focused on becoming an integrated energy supplier in Australia based on its extensive coal seam gas resources in Queensland's Surat Basin.

QGC's Berwyndale South site, 30km south-west of Chinchilla, supplies gas to two gas-fired power stations. The Argyle-Kenya gas field (15km east of Berwyndale South) will supply Incite Pivot Ltd's electricity requirements at Gibson Island at the Port of Brisbane. QGC's Condamine Power Station, 8km east of Miles is currently being constructed by Austrian Energy and is due to be operational by February 2009. This power station will be supplied by QGC's nearby gas fields.

Arrow Energy has gas fields at Kogan North, Tipton West and Daandine, and has an agreement to supply liquefied natural gas to the proposed LNG plant at Gladstone starting in 2010.

In association with ERM Power, Arrow will jointly develop the \$545 million Braemar 2 Power Station and associated high pressure gas pipeline. Preparatory siteworks have started, construction should take up to 18 months and the first electricity sales due to be delivered in the second half of 2009.

Origin Energy's main coal seam gas producing operation is at Spring Gully, 90km north of Roma. Origin is



A team of watermelon pickers on the Sturgess farm takes a quick breather while the bins are changed over.

also developing the Darling Downs Power Station and building a gas pipeline to take gas from Wallumbilla to that station. Considerable exploration work is currently being undertaken at Talinga (25km west of Chinchilla) where the environmental impact study has already been completed; and at Walloons (20km west-south-west of Chinchilla) where it is proposed to have a gas plant, wells and gathering system installed over three years.

Line Energy's Chinchilla site is using the underground coal gasification technique to produce sulphur-free diesel. A demonstration plant, designed to produce 7 barrels of diesel a day, is being used to prove the technical feasibility of the process

prior to constructing a commercial plant.

In May 2008 a mining lease application was lodged with the Queensland Government for the commercial plant on a lease that covers 10,000ha and is said to contain coal reserves of over 100 million tonnes. This plant could produce 20,000 barrels a day of clean diesel and aviation fuel for up to 60 years. The commercial

plant is expected to begin operations by 2012.

Carbon Energy is active in the Kogan area with its Bloodwood Creek underground coal gasification demonstration plant which will pave the way for a full-scale production facility capable of producing 200 million barrels of fuel, 35 million tonnes of ammonia and 70 million tonnes of ammonium nitrate.



Some of the fine seedless melons produced in Chinchilla.