



Traditional Resources - Western Downs

The Western Downs is known as the Energy Capital of Queensland and is now emerging as the Energy Capital of Australia.

This reputation is due to strong investment over the past 15 years by the Energy Production Industry (EPI) into large scale resource sector developments in coal seam gas (CSG) and coal.

Gas and coal-fired power stations feature prominently in the region with a total of six active thermal power stations.

Kogan Creek Power Station is one of Australia's most efficient and technically advanced coal-fired power stations. It is one of the greenest coal-fired power stations with the lowest environmental impacts of any coal-fired power station nationwide.⁰

Dalby Bio-Refinery Ltd (DBRL) is Australia's first grain-to-ethanol facility. The refinery converts nearly 200,000 metric tonnes of sorghum into 76 million litres of ethanol and produces 180 thousand tonne of Wet cake (WDG) or 65 thousand tonne of Dry DDG cake each year, employing approximately 50 people.¹³

More recently, renewable energy farms have invested in the region with multiple solar and wind energy farms either currently under construction or approved for construction.

Positive economic growth in the Western Downs clearly shows that the energy industry effectively co-exists with local industries, while improving communities by providing jobs, infrastructure and improved services.¹

"Queensland has the youngest coal-fired power fleet in Australia including the Kogan Creek Power Station, and an abundance of gas which will ensure the State has a reliable source of base load energy for decades to come."

*- Ian Macfarlane, CEO,
Queensland Resources Council*

As at June 2018, the Gross Regional Product (GRP) of the Western Downs region has grown by 26.3% over a twelve-month period to reach \$4 billion.²

The resource industry paid \$58 million in wages to 412 full time jobs (2017-18).³

The industry spent \$136 million on goods and services purchased locally (398 local businesses benefitted), and community contributions (108 community organisations benefitted).³

It also brought an additional 1,594 fulltime jobs to the Western Downs region.³

The Queensland Major Projects Pipeline Report lists gas developments and renewables as the sectors that are driving growth in the Western Downs region.⁴

MINING INDUSTRY:

The mining industry, (including; coal mining, oil and gas extraction, metal ore mining, non-metallic mineral mining and quarrying, and exploration and other mining services), has had a presence in Western Downs region since the opening of a coal mine in Warra in 1914. This initial mine stayed in operation for five years. The Moonie Oil Field began production in 1961. The Wilkie Creek coal mine commenced mining in 1994 and closed in 2013. In 2006 the Kogan Creek Mine was constructed and in 2010 the Cameby Downs Mine opened.

"We have a strong and diverse economy that is enhanced by the resource sector through employment, infrastructure and improved services."

Paul McVeigh, Mayor
Western Downs
Regional Council.

Mining is the second most productive industry in the Western Downs after construction, generating an output of 2.23 billion in 2017/18.²

In 2017/18, the total value of local sales was \$759.2 million. Of these sales, oil and gas extraction was the highest, at \$615.7 million.²

In 2017/18 mining had the largest total exports by industry, generating \$1.48 billion. This is a 57% increase over a twelve-month period. Of this, oil and gas extraction contributed \$1.2 billion (82.36% of the mining industries contribution).²

The mining industry contributed 34.7% (\$1.27 billion) of value added by industry sector in the Western Downs in 2017/18. Of this, oil and gas extraction contributed 86.74%.²

Key pipeline infrastructure throughout the Western Downs has allowed easier access to domestic and international markets.

GAS RESOURCE OVERVIEW:

Coal seam gas is primarily a methane based natural gas that is sourced from coal deposits. In Australia the major coal seam gas resources are found along the eastern coast in the onshore Surat and Bowen basins. Queensland's Surat Basin in which the Western Downs sits, is currently the Australian region with the most coal seam gas activity.

The oil and gas industry have and continue to bring infrastructure and investment to the region, providing new jobs, and strengthening and diversifying the economy.^{5 & 11}

- Oil and gas industry outputs increased from \$59.3 million in 2014/15 to \$1.8 billion in 2017/18 as industry projects across the Western Downs moved into the production stage.²
- Increased outputs directly impacted industry exports and local sales figures.
- Oil and gas extraction as of 2017/18 are \$1.2 billion, compared to \$409.7 million in 2015/16.²
- Local sales by industry sector in oil and gas extraction went from NIL in 2015/16 to \$615.7 million in 2017/18.²

The Western Downs will play a key part for the release of future domestic gas tenements by the state government.

GAS PROJECTS IN THE WESTERN DOWNS:

- Arrow Energy's **Produce the Limit (PtL)** in the Surat Basin. (Project enabling Arrow to run existing compression facilities to their maximum design limits, increasing their current Surat production by up to 30%).
- Senex Energy's more than \$200 million **Project Atlas** in Wandoan/Miles. (Field Compression Processing facility and pipeline connection to Darling Downs Pipeline for new domestic gas tenements).
- Shell's QGC business's **Project Ruby** in Tara. (Shell's QGC Project Ruby is a program of gas field development that involves drilling up to 161 natural gas wells to supply both domestic and LNG markets).
- Arrow Energy's **QGCLNG Joint Venture** in the Surat Basin. (This project represents a 27-year deal between Arrow and Shell's QGC operated QCLNG joint venture. It will commercialise most of Arrow's gas reserves in the Surat Basin).
- Central Petroleum- Incitec Pivot JV's **Central Petroleum- Bowen Basin** in Miles.
- Origin is the upstream operator of Australia Pacific LNG, which is developing its substantial coal seam gas reserves across the Surat and Bowen basins for Australian and export customers. In 2018, APLNG provided around 30% of gas supply to the east coast market.⁶

THERMAL POWER STATIONS:

Power stations throughout the Western Downs contribute to the economy in more ways than simply through energy provision.

In reference to the \$90 million overhaul of the largest generating unit in Australia at CS Energy's Kogan Creek Power Station in 2019, Energy Minister Dr Anthony Lynham said that the overhaul would provide more than 400 jobs.

This will benefit local suppliers, contractors and local arms of national and international businesses with flow on-benefits to local service industries such as accommodation providers, caterers and transport companies.¹²

There are six thermal power stations in the Western Downs:

- Origin Energy's **Darling Downs Power Station** has a generation capacity of 644MW. It is one of the country's most efficient *baseload power stations, running on coal seam gas from reserves in the Surat Basin.
- Braemar Power Project Pty Ltd's **Braemar Power Station** has a generation capacity of 504MW. It is strategically located adjacent to Surat Basin CSG fields, with a dedicated pipeline connection to nearby gas fields.
- Arrow Energy's **Braemar 2 Power Station** has a generation capacity of 519MW and is located 35km southwest of Dalby. It is a gas-fired *peaking power station.
- Shell's QGC business's **Condamine Power Station** has a generation capacity of 144MW and is located near Miles. Using Combined Cycle Gas Turbine (CCGT) technology, the station generates power with the gas turbine generator. The waste heat from the gas turbine is used to make steam to generate additional electricity.
- Arrow Energy's **Daandine Power Station** has a generation capacity of 27.4MW and is located West of Dalby.
- CS Energy's **Kogan Creek Power Station** has a generation capacity of 750MW. It is fueled by black coal and contains the largest single generating unit in Australia, with one of the lowest environmental impacts of any coal-fired power station nationwide. It has 111 employees.^{14 & 15}

"Queensland has some of the world's highest quality coal and an abundance of gas, which are both significant contributors to jobs and the State's economy."

- Ian Macfarlane, CEO, Queensland Resources Council

TRADITIONAL RESOURCES QUICK FACTS:

Traditional resources bought an additional **1,594 full time jobs** to the region

The industry paid **\$58 million in wages to 412 full time jobs** in 2017/18



The industry spent **\$136 million** on goods and services purchased locally in 2017/18³



There are **five** gas powered power stations and **one** coal powered power station in the Western Downs

Kogan Creek Power Station is one of Australia's **most efficient and technically advanced** coal-fired power stations⁰

COAL MARKET OVERVIEW:

Coal mining has contributed to the Western Downs economy in some capacity since 1914. Coal is Australia's largest energy resource, with around 60% of the nation's electricity currently produced in coal-fired power stations.⁷

The International Energy Agency (IEA) forecast Australia's net exports of coal to increase by 20% by 2040. Australia's coal earnings were targeted to generate over \$67 billion in 2018/19, making coal the largest commodity exported in Australia, according to the Office of the Chief Economist.⁸

As at 2017/18, coal mining exports were \$190.4 million.²

PROJECTS UNDERWAY INCLUDE:

- **Yancoal's Cameby Downs open cut operated by Macmahon**
Cameby Downs open cut mine started production in 2010. It consists of an open cut mine, coal handling and preparation plant (CHPP) and related infrastructure. The operation was previously approved to extract up to 2.8 million tonnes of run-of-mine (ROM) coal a year over a 45-year period, but as of 2019 this has been increased to 3.5 million tonnes a year over a 75-year period. The Queensland Resources Council (QRC) stated that the extension of the mine life helped to confirm a long-term role for coal in the Surat Basin.⁸
- **CS Energy's Kogan Creek open cut operated by Golding Contractors**
The Kogan Creek open cut black coal mine located near Chinchilla, was developed in 2006 and commenced operations in 2007 to supply coal to the adjacent Kogan Creek Power Station that was commissioned in the same year. The mine was developed as a greenfield project by Golding Contractors Pty Ltd for the Queensland Government owned CS Energy Limited.⁹ It has a total coal resource of 200 million tonnes and delivers approximately 2.8 million tonnes of coal per year to CS Energy's Kogan Creek Power Station via a four-kilometre overland conveyor.¹⁰



References

- | | |
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| 3 - Queensland Resources Council (QRC) | 11 - Australia Pacific LNG |
| 4 - Queensland Major Projects Pipeline Report | 12 - The Queensland Cabinet and Ministerial Directory |
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| 6 - Western Downs Development Status Report | 14 - Business Queensland - Queensland Government |
| 7 - Geoscience Australia | 15 - Listed company websites |

*Baseload power - provides power for everyday use

*Peaking power - provides power when demand is at its highest

OPPORTUNITY

The Western Downs offers many strengths to compliment the benefits of the ongoing contribution of the energy production industry. These include; employment opportunities, land availability and affordability, livability, digital connectivity, health services, retail and ease of commercial development: all of which stimulate and support economic and industry growth throughout the region.

Western Downs Regional Council is open to business and inviting major opportunity into the region.

The Council's proactive approach to development and developers, through an award-winning, streamlined Planning Scheme, minimises red tape and increases certainty, shortens timelines and reduces risk.

The continued strength of traditional agricultural industries, construction, manufacturing and other support industries throughout the region, show the benefits of working alongside energy producers to maximise production outcomes.

The Western Downs has an established construction, manufacturing and labour force supply-chain. Linking services and suppliers to industry and consumers. Economic development businesses in the region: such as the Chambers of Commerce and the Toowoomba and Surat Basin Enterprise (TSBE) group, contribute to supply chain strength by linking businesses with opportunities to create opportunity and diversity.

ECONOMIC INFRASTRUCTURE – FREIGHT AND TRANSPORT

In the Western Downs, transport infrastructure is served by road, plane and train. Road access is through the Leichhardt, Moonie, and Warrego Highways, with the Toowoomba Second Range Crossing expected to further reduce freight and transport times to key locations.

The Toowoomba Wellcamp Airport opens export opportunities through Queensland's only dedicated 747-8 International Freighter Service. The rail network transports containerized freight to the Port of Brisbane for export, with imminent rail tunnel upgrades allowing for transport of 'Hi Cube' containers. Rail networks such as the Western Rail Line increase connectivity and provide direct access to the Toowoomba Wellcamp Airport and the Port of Brisbane. The Inland Rail national project will link the Port of Melbourne and the Port of Brisbane by rail, via central-west NSW and Toowoomba.

The information and statistics included in this document are reliant on the accuracy of sources as listed and were accurate as at the time of printing. June 2019.

A SNAPSHOT



UNEMPLOYMENT RATE TRENDING LOWER THAN QLD AVERAGE



A SKILLED AND EXPERIENCED WORKFORCE



GRP: 139.25% INCREASE OVER 15 YEARS



Our Region



DEVELOPMENT & DEVELOPERS SUPPORTED AND WELCOMED WITH WDRC PLANNING SCHEME



COMPARATIVELY STRONG INDUSTRY SUPPLY CHAINS PER CAPITA OF POPULATION

Energy Capital of Queensland: Resources & Renewables



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