



Water

Awoonga Dam is the main water supply for the Gladstone Region and is located approximately 30 kms south of Gladstone.

Total capacity is 777,000 ML with a fail safe yield of some 80,000 ML per annum. The catchment area contributing to the lake is 2,240 sq km and the surface area of the lake at full capacity i.e 40m is 6,750ha.

The dam is a rock fill structure with a concrete upstream face slab. The embankment is over 650 metres in length and 54.4 metres in height, with a volume of approximately 2 million cubic metres of rock. The spillway's height is 40 metres AHD.

The dam was raised in 2002 and the design allows for further raising if necessary through the addition of gates to the top of the spillway.

Awoonga Dam and the subsequent infrastructure associated with it, is owned and managed by the Gladstone Area Water Board (GAWB) a Queensland Government Statutory Authority.

GAWB has taken the next step in its planning for the future water needs of the Gladstone region by planning for the Gladstone-Fitzroy Pipeline project, where up to 30,000 ML of water each year may be drawn from the Fitzroy River.

GAWB is carrying out preparations for the pipeline now, including seeking appropriate environmental approvals, to ensure that the pipeline and its associated infrastructure, should government approve its construction, can be constructed within two years as soon as increased demand or low dam levels trigger the need.

Further details can be found at www.gawb.qld.gov.au

Electricity

The electricity supply system in Queensland, similar to the rest of Australia, operates at a frequency of 50 hertz. The voltage of the electricity supply to a consumer is nominally 240 volts (V) single phase and 415 V three phase.

Electricity in Queensland is generated predominantly from large, coal-fired power stations, located mainly in central and southern Queensland.

With abundant high quality coal deposits nearby, a reliable state transmission network and three base load power stations located within 100 km of the area, Gladstone and surrounds have access to reliable and internationally competitive electric power.

Power stations in the region include Government Owned Corporations (GOC) coal-fired, steam cycle power stations – Callide and Stanwell.



- Callide Power Station – 1720MW from Callide A, Callide B and Callide Power Plant (Callide C stations. Callida A 120 MW (4 x 30 MW) is currently in storage awaiting future use in CS Energy's Callide Oxyfuel clean coal project; Callide B 700 MW (2 x 350 MW); and Callide C 900 MW (2 x 450MW) was commissioned in 2001.
- Stanwell Power Station – 1400MW (4 x 350MW) commissioned in 1996

The following privately owned (fully or partially) power stations:

- Gladstone Power Station – 1680MW (6 x 280MW). Queensland's largest coal-fired power station is currently owned by a joint venture. The power station provides over 900MW to Boyne Smelter with the balance dispatched to the Queensland Electricity Grid.
- Callide C 420MW (1st unit) – coal-fired super critical steam cycle and Callide C 420MW (2nd unit) coal-fired super critical steam cycle – 50% owned by InterGen and 50% owned by CS Energy (a GOC)

Natural Gas

The gas industry comprises gas exploration and producers, storage facilities, transmission pipeline companies, gas distribution companies and gas retailers.

Exploration and production of natural gas in Queensland is undertaken by a number of companies.

Natural gas in Queensland is distributed by Allgas Energy/ENERGEX and Envestra (in association with Origin Energy). Allgas Energy/ENERGEX distributes and retails natural gas to South Brisbane, the Gold Coast, Toowoomba and Oakey, while Origin Energy retails gas to North Brisbane, Ipswich, **Gladstone** and Rockhampton through distribution mains owned by Envestra.

Queensland Gas Pipeline, which is 627km, transports gas from the south-west Queensland gas fields to Gladstone and Rockhampton. The pipeline supplies natural gas to industrial and domestic markets and is part of a strategic infrastructure network servicing Australia's fastest growing State, Queensland. The Queensland Gas Pipeline connects most gas sources in Queensland, including the Northern and Southern Denison Trough, Surat Basin and Bowen Basin coal seam gas, directly to Gladstone and Rockhampton, which is the second largest market region in Queensland. In addition to these direct links, it is also downstream of the Cooper/Eromanga Basin.

The Queensland Gas Pipeline transports gas to major industrial facilities operated by: Queensland Alumina Ltd (QAL), Orica, Queensland Energy Resources Ltd (QERL), Rio Tinto Alcan Yarwun Alumina Refinery, Boyne Smelters Ltd. It also supplies gas to domestic markets through Origin Energy. Origin Energy is a participant in most segments of the energy supply chain including natural gas and oil exploration and production, power generation, energy retailing and network management services.

In Gladstone, commercial and industrial customers are consuming up to 1 terajoule per year.