

CS Energy is developing a natural gas power station to operate in high demand periods and complement variable renewable energy.

The Brigalow Peaking Power Project will be located next to CS Energy's Kogan Creek Power Station in the Western Downs. This region offers excellent connections into the existing power grid.

The open cycle power station will have fast-start capability and operate in high demand periods to underpin power system reliability.

Development of the Brigalow Peaking Power Plant is a significant step in the continued diversification of CS Energy's portfolio.

We are committed to securing a balanced mix of energy sources to meet our customers' requirements and deliver affordable, reliable and sustainable energy for Queensland.

Fast facts

- Up to 400 MW capacity
- Fast start 5 minutes from cold to full output
- Capacity to power more than 150,000 Queensland homes during peak periods
- Features GE Vernova hydrogen capable turbines to provide an emission reduction pathway over time
- Commercial operations expected in 2027
- Located on the traditional lands of the Barunggam people.



How it works

The Brigalow Peaking Power Plant will have 12 GE Vernova aeroderivative turbines (LM2500XPRESS) with a capacity of 33 MW per unit. It will be fuelled by natural gas that will be transported to site via a proposed 21-kilometre APA pipeline that would connect to the existing Roma to Brisbane Pipeline.

The GE Vernova turbines used in the project are hydrogen capable to provide an emissions reduction pathway over time. Future operations of the power plant using a hydrogen and natural gas blend will be subject to the commercial availability of renewable hydrogen.

The Brigalow Peaking Power Plant will be a reliable source of fast power when needed. With its ability for multiple start/stop cycles per day and to ramp up to full power output within five minutes, the plant can be on the grid quickly to provide sustained power output during peak demand periods. This is important in helping to address the variability of renewable energy generation and providing firm capacity to the grid in addition to the role of batteries and pumped hydro.

The power plant is planned to connect into the Banana Bridge substation located next to the Chinchilla Battery. This will require a few hundred metres of new transmission line to be constructed on land owned by CS Energy.

What is hydrogen?

Hydrogen can be produced in liquid or gas form and can be used as fuel for heating or transport, a raw material in industrial processes, or to generate electricity.

Green hydrogen is produced using a process called electrolysis, during which a clean energy source such as solar or wind power is used to produce a current which separates the hydrogen and oxygen molecules in water (H₂O).

Green hydrogen produces no carbon emissions.

Timeline

2023

- · Site selection and initial design and surveys for the power island site were completed.
- CS Energy signed an agreement with GE Vernova for the supply of long lead time equipment.

2024

- CS Energy and APA Group signed a Design and Development Agreement for the pipeline to connect the power plant to APA's Roma Brisbane Pipeline.
- Planning and development work for the power plant continued.

Looking ahead:

- External and government approvals, and a final investment decision are expected in 2025, with site mobilisation to follow.
- The power plant is forecast to be operational in 2027.

