

Kogan Energy Hub



CS Energy is creating energy hubs at our power stations to deliver the energy mix needed to reliably transition the grid to renewable energy while providing opportunities for our workforce to reskill.

Our coal-fired power stations are located in strong parts of the network and have strategic advantages such as highly skilled workers, grid connection, water allocations, available land and established community relationships.

Energy hubs maximise the use of shared infrastructure, while allowing for localised end-to-end use of energy.

Our first, and most advanced, energy hub is the Kogan Energy Hub in Queensland's Western Downs. Co-located with the Kogan Creek Power Station, the hub currently has three projects at various stages of development – the Chinchilla Battery, the Kogan Renewable Hydrogen Demonstration Plant and the Brigalow Peaking Power Plant.

Technology



Chinchilla Battery



Kogan Renewable Hydrogen Demonstration Plant



Brigalow Peaking Power Plant

Chinchilla Battery

The Chinchilla Battery began operating in July 2024 and is the first completed project in the Kogan Energy Hub. It features 80 Tesla Megapack 2 systems and has a total capacity of 100 MW/200 MWh.

Batteries complement renewable energy by charging up during the middle of the day when there is often a surplus of solar energy and then releasing it during the evening peak demand period. The Chinchilla Battery can power up to 33,000 homes for two hours in the evening peak before needing to recharge. It uses lithium iron phosphate (also known as lithium ferro phosphate [LFP], or LiFePO₄) batteries, which are the safest lithium batteries currently available.



Kogan Renewable Hydrogen Demonstration Plant

The Kogan Renewable Hydrogen Demonstration Plant includes the co-location of a solar farm, battery, hydrogen electrolyser, hydrogen fuel cell, hydrogen storage and outloading facility. CS Energy is also planning a refueller network that will form part of the Hydrogen Superhighway.

The demonstration plant's hydrogen electrolyser will only be powered by behind-the-meter solar energy, making it one of the few truly renewable hydrogen projects in Australia. The aim of the project is to produce renewable hydrogen and provide energy and other grid services while gaining expertise from an operational hydrogen project from production, storage, transport and handling.

Construction of the demonstration plant is nearing completion and first hydrogen production is forecast for the first half of FY2025.

Brigalow Peaking Power Plant

CS Energy's Brigalow Peaking Power Plant will be Queensland's first hydrogen-ready, natural gas power station and will provide crucial firming capacity to support the transition to renewable energy.

The 400 megawatt, open cycle power station will be capable of operating on 35 per cent renewable hydrogen initially, with a pathway to 100 per cent hydrogen over time.

CS Energy has signed an agreement with global energy leader GE Vernova for the supply of key equipment for the power station. The project is currently in the planning and development phase, and is scheduled to be operational in mid-2027, subject to final approvals.



Delivering energy today, powering your tomorrow.

