

Chinchilla Battery



CS Energy is working with Tesla to build the Chinchilla Battery – a large scale battery that will store renewable energy when it is plentiful, and release it back into the electricity grid when it's needed most.

The project is located at CS Energy's Kogan Energy Hub next to our Kogan Creek Power Station near Chinchilla on the Western Downs. This region is known as the energy capital of Queensland and offers excellent connections into the power grid.

The Chinchilla Battery will have a discharge capacity of 100 megawatts and store 200 megawatt hours of energy (100MW/200MWh). This means during the evening energy demand peak, the battery can discharge 100MW of electricity to power 14,000 homes for two hours.

The \$150M project will create up to 80 jobs during construction and up to 10 jobs when operational.

The Chinchilla Battery will have a relatively small footprint (100m x 150m) and be connected to the grid via Powerlink's 275 kV Western Downs substation.

The Chinchilla Battery will feature Tesla Megapack systems and is being constructed by Downer. CS Energy will dispatch the battery's output and maintain the Chinchilla Battery site.

Fast facts

- **100MW/200MWh storage**
- **Tesla Megapack technology**
- **\$150 million investment**
- **Capacity to power 33,000 homes for two hours**
- **Construction completed. Commissioning in late 2023.**

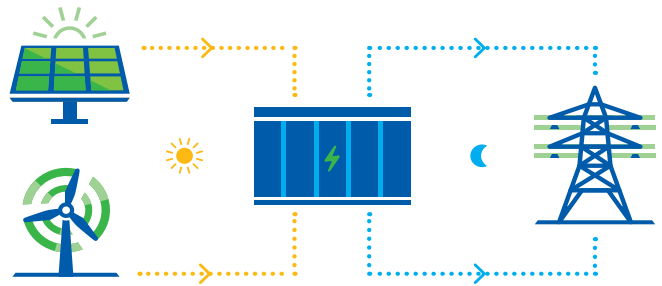
How it works

There's often a surplus of solar and wind energy produced in Queensland during daylight hours. During the day, there's less demand for power, and wholesale electricity prices are lower.

Once the sun goes down, electricity demand peaks in the early hours of the evening when people are returning from work and using air conditioning and appliances. When more electricity is being used, wholesale prices increase too.

The Chinchilla Battery will use 80 Tesla Megapack systems to store energy produced during the day, and then release it during the evening peak.

By reducing demand in the evening peak the Chinchilla Battery will help put downward pressure on consumers' electricity bills.



Batteries are also fast and flexible, able to turn on and off in a fraction of a second. And because they can ramp up and down quickly they are also able to rapidly respond when there is a sudden gap in electricity supply, helping to stabilise the grid and support system security and reliability.

About Tesla Megapack

The Chinchilla Battery will be made up of 80 Tesla Megapack systems, with each one housed in a rectangular enclosure.

Megapack is made up of the battery module, paired with its own inverter and associated heat management systems and wiring.

The Megapack is one of the safest battery storage products of its kind. Units undergo extensive fire testing and include integrated safety systems, and specialised monitoring software. They are compliant with major safety standards, with the battery cells meeting the global UL 1642 standard.



Key milestones

- **Site selection and feasibility** – done – 2021
- **Planning approvals** – done – late 2021
- **Construction** – commenced in mid-2022
- **Arrival of first Megapack** – early 2023
- **Energised and ready for testing** – 2023
- **Operational** – early 2024

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