

Community Profile

Clairview



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Community Microgrid Feasibility Study

Clairview Community Profile

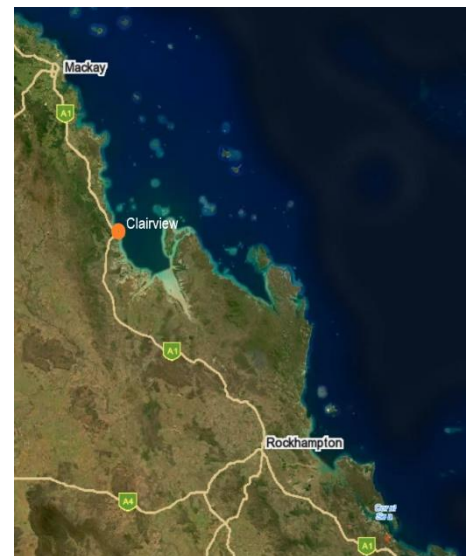
About Clairview community

Clairview is located 123 kilometres south of Mackay on the Bruce Highway. The coastal community covers a 170 square kilometre strip along Queensland's Isaac Coast. It is part of the Isaac Regional Council local government area, in the state electorate of Mirani.

Clairview is in Guwinmal country, the traditional lands of the Koinmerburra people. Known as the 'saltwater people', they have had a long and deep connection to the land and waters along the coast. Historically, they would have navigated the waters in tree bark canoes to hunt traditional foods, including turtle and dugong.

Today, agriculture and tourism are the key industries for the Clairview area, with the township servicing the pastoral industry (namely cattle grazing) and facilitating drive tourism due to its location alongside the Bruce Highway.

Clairview is a community hub for people looking to connect with nature. The town's population is highly seasonal being a popular recreational boating and fishing destination, including barramundi fishing and mud crabbing. The town hosts an annual Clairview Fishing Competition, a major event on the Clairview calendar each Easter. As a draw card for nature lovers, the marine areas adjacent to Clairview have been declared a dugong sanctuary. Clairview has several holiday rentals and a caravan park.



The electricity network at Clairview

Clairview's electricity is supplied by Ergon's 'Northern' feeder, a 22,000 volt or 22kV powerline which is fed from the Pandoin Substation, located around 200 kilometres south in the northern suburbs of Rockhampton.

The powerline is primarily timber pole in construction and has a long feeder backbone of approximately 200 kilometres in length, with a total line length of just over 1,000 kilometres.

The Northern feeder's three-phase network services a total of 109 customer connections at Clairview.

Total maximum demand for the area is approximately 220kVA, with a predicted annual consumption of 876,000kWh. Clairview is a residential and recreational community, and as such, maximum demands are seasonal, with loads peaking in the December/January holiday period.

Being at the end of the powerline presents quality of supply impacts, ranging from total supply outage to sags and swells of the supply voltage. Further, from a power reliability perspective, the location means that the Clairview community is exposed to all the faults that affect the backbone of the feeder.

However, emerging intelligent grid technologies and distributed renewable energy resources, like solar and battery storage, may provide an opportunity to improve the reliability and resilience of the electricity supply to regional and remote communities like Clairview.

About the Community Microgrid Feasibility Study

With a view to overcoming some of these network challenges, we are investigating innovative solutions to energise Queensland's regional and remote communities in our Community Microgrid Feasibility Study.

We have secured funding through the Federal Government's Regional and Remote Communities Reliability Fund (RRCRF), to conduct a Community Microgrid Feasibility Study to investigate how innovative technology solutions, like solar, battery storage integrated with smart communications devices, can improve the reliability of electricity supply to regional and remote communities at the fringe of Queensland's electricity network.

The study will allow us to test different technology options, determine the feasibility of establishing microgrids to improve network reliability and resilience, and identify the best solutions to energise Queensland's communities.

The Central Queensland coastal towns of Clairview and Stanage Bay are the focus of this exciting Community Microgrid Feasibility Study.

The design of the Northern feeder, incorporating both three-phase and Single Wire Earth Return (SWER) construction in a 'fringe of grid' location, makes these two communities ideal for our feasibility study, allowing us to see how microgrid technologies can be applied in different sections of the network.



The focus of our study in Clairview

Clairview will provide a case study of a remote community located on the three-phase network in the Community Microgrid Feasibility Study.

Building on Ergon's experience in isolated microgrids, our research will investigate the options, using renewable energy technologies, to improve Clairview's electricity reliability and community resilience. The quality of supply to the Clairview township will be investigated in detail.

It is anticipated that solutions identified for Clairview may also be applied to other regional and remote communities on Queensland's three-phase networks.

Get in touch with us

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