

# Gracemere Substation Project Update



Part of Energy Queensland

October 2020

## We're securing Gracemere's future electricity needs.

**To secure the future electricity needs of the Gracemere region, we are constructing a new 20MVA modular substation in Gracemere with a new 66,000-volt powerline to Egans Hill substation.**

### Why is the project needed?

Demand for electricity has grown with the local population and new housing estate developments, as well as with the level of commercial and industrial activity in the Gracemere industrial area.

To secure the future electricity needs of the Gracemere region, we are constructing a new 20MVA modular substation near the centre of town, which will be supplied by a new 66,000-volt (66kV) powerline, running from the new Gracemere substation to the existing Egans Hill substation.

As well as increasing the network's capacity for the 10,000 homes and businesses in the Gracemere region, this investment will improve the security of supply with new options for restoring power following interruptions caused by severe weather and other unforeseen network events.

### About the Gracemere substation

We first engaged with the community about the site for the substation in May 2012. As part of this community engagement process, we investigated eight suggested sites, in addition to 10 other potential sites identified outside this process.

This led to the selection and purchase of the site for the planned substation at Lawrie, Platen, John and James Streets. This site was assessed as the most suitable option based on its proximity to the electricity demand, ease of site and network access, and having the least potential for community and environmental impacts.



**Fig 1 – Location of new Gracemere substation – Corner of John, James and Platen Streets**

The site is 8,226m<sup>2</sup> and allows suitable space to strategically locate the substation infrastructure towards the back of the block on James Street, with around 3,000m<sup>2</sup> adjacent to Gracemere's main street, Lawrie Street, remaining undeveloped by us at this stage. This, along with vegetation and fencing planned to visually screen the substation, will reduce the visual impact on the surrounding residents and businesses.

We worked in partnership with the adjacent Gracemere United Protestant Church to undertake a small land swap and establish boundary fencing and an access gate for the Church along John Street. This mutually agreeable arrangement resulted in improved access and layout of the respective land parcels to the benefit of both landholders.

The site presents minimal immediate residential impact. The site is neighboured by a church on the southern border of the site (along Lawrie Street), with a Scouts hall and Girl Guide hall on James Street, and five residential homes situated opposite the site on John Street. The site is also immediately adjacent to the railway line to the west.

## About the powerline

The new powerline, connecting the new Gracemere substation with the existing Egans Hill substation, will run down Lawrie Street, along Gavial Gracemere Road and into Sullivan Road.



**Fig – Powerline route between Egans Hill substation and new Gracemere substation**

Through earlier community consultation, several potential routes for the powerline were investigated. The final line route was selected as it best meets the range of community and environmental concerns put forward, as well as electrical design and cost considerations. We will need to remove and trim some vegetation along the line route. Where we have to trim or remove trees on properties, we will speak directly with landholders prior to commencing work.

Some sections of the 66kV powerline in town will be constructed underground. As well, all the new 11kV powerlines exiting the Gracemere substation will be constructed underground, before transitioning to an overhead construction to connect to the existing 11kV overhead powerline network. This will ensure that the visual impact in and around the new Gracemere substation is minimised.

To reduce the physical and visual impact on the community, we have considered a range of options for the existing 11kV line routes and new 66kV powerline from the outskirts of the CBD to Gavial-Gracemere Road.

## When will construction on the project commence?

The works associated with the Gracemere project will be conducted in several stages. We have recently completed the Design Development phase.

Designers and project engineers completed a site visit to the substation site and Egans Hill substation in mid-September 2019 to gather information required to prepare the detailed design.

We engaged SMEC to produce the detailed substation design, with our internal design employees completing the power distribution system design work for the project. We are now in the final stages of designing the substation and its connection to the Egans Hill substation. This design provides the substation layout on the block including the electrical equipment and substation communications building on the block.

Construction on the project is anticipated to commence on the substation site in January 2021. Before this work can commence, Rockhampton Regional Council will undertake some relocation of sewerage and water pipes, towards the end of October 2020. Work on the powerline between Egans Hill and the new Gracemere substation is scheduled to commence in March 2021. Some of the key activities that we will undertake to deliver the project are listed in the following table:

Stage	Activity	Timing
<b>Network Planning</b>	<ul style="list-style-type: none"> <li>Identify network constraints and undertake preliminary evaluation</li> <li>Research options</li> <li>Determine most appropriate solution</li> </ul>	Complete
<b>Planning Approval</b>	<ul style="list-style-type: none"> <li>Develop an Environmental Management Plan</li> <li>Undertake internal and external approval processes (including Material Change of Use - MCU)</li> </ul>	Complete
<b>Construction</b>	<ul style="list-style-type: none"> <li>Finalise substation and powerline designs (complete)</li> <li>Commence civil construction (Jan 2021)</li> <li>Transport and install Gracemere substation building (May 2021)</li> <li>Gracemere substation electrical infrastructure works (July – Dec 2021)</li> <li>Build powerline between Egans Hill and Gracemere substations (Mar – Sep 2021)</li> <li>Substation commissioning (Feb-May 2022)</li> <li>Project completion (May 2022)</li> </ul>	2020 - 2022

*Please note that these dates may be subject to change.*

As the project progresses, we will provide the community with more detailed updates about each phase of the project.

## Getting in touch with us

We are committed to working in consultation with Rockhampton Regional Council and the Gracemere community to limit any impact on the community and to keep the community informed as we progress the project, securing Gracemere's future electricity needs.

Further community engagement with key stakeholders and directly impacted customers adjacent to the substation site is anticipated to commence in the coming months.

For more information about the Gracemere substation project, to provide feedback or to register for future updates via email, please contact our Senior Community Engagement Advisor, Kate Austin - on 1300 653 055 or email us at: [NetworkProjectEngagement@energyq.com.au](mailto:NetworkProjectEngagement@energyq.com.au)

You can also keep up to date on the project by visiting our project website: <https://www.ergon.com.au/network/network-management/network-infrastructure/major-projects/regions/central/gracemere-substation-and-powerline-route-project>