

Mackay City Substation Upgrade - Project Update



Part of Energy Queensland

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Major civil works are underway to support the upgrade of the Mackay City Substation in Tennyson Street.

Major civil works phase

Until recently, work on our Mackay City Substation in Tennyson Street has largely been conducted behind the substation fence, with little disruption to customers and the local community. Since our last update, our contractor Corbett's constructed the internal security fencing at the substation.



Fig 1 – Installation of substation security fencing

In June, our works then extended outside the fence into the surrounding streets, as a phase of major civil works commenced to support the substation upgrade.

Our civil contractors, Jai-Cor are progressing well on the multiple stages of civil works, installing conduit for high voltage electrical cabling, which will connect the new substation to the surrounding distribution network to power the CBD and eastern suburbs of Mackay.

Despite a few factors, like some welcome rain for the region earlier in July and unearthing some undocumented underground assets belonging to other utilities, Jai-Cor continue to progress the complex civil works.



Fig 2 – Welcome rain for the Mackay region in early July, delayed some excavation works.

Stage 1 - Victoria Street Feeder

The excavation along the east side of Tennyson Street, for the Victoria Street powerline, commenced as planned in June. However, crews uncovered an old Telstra communications pit containing asbestos and had to halt excavation. Whilst the pit presents no danger to the community, work on this stage was halted so Telstra could address the issue before our work recommences.

Work to finalise the trenching along Tennyson Street from our site office opposite the substation, past Tennyson House and up to TechServe, will recommence as soon as Telstra complete their remediation work.

Stage 2 - Tennyson Street south and Gordon Street east

Stage 2 was one of the most complex stages of the civil works. This stage involved excavating trenches from in front of the substation, across Tennyson Street, through the roundabout beyond Ideal Electrical and down Gordon Street as far as Watson's Fencing.



Fig 3 – Jai-Cor crews excavating trenches for conduit that will house the high voltage cables out of Mackay City Substation.

First the road and footpath surfaces were cut with a concrete saw and then a combination of mechanical excavation - using a mini-excavator and a vacuum truck - as well as good old-fashioned shovel work, was adopted to provide access to lay the new conduits for the electrical cables which Ergon Energy Network will install in the coming months.



Fig 4 – Conduits for the high voltage cables out of Mackay City Substation are installed.

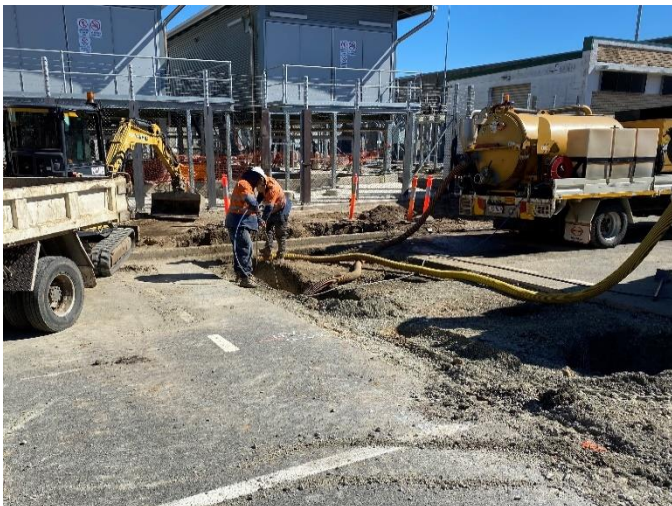


Fig 5 – A vacuum truck is used to dig trenches for conduits around existing road kerbing.



Fig 6 – Electrical conduits for cables are installed in front of the substation.

Where possible, under boring was utilised to limit disruption to the road and surrounding infrastructure. The section under the Gordon Street roundabout is an example.



Fig 7 – Trench entrance in Tennyson Street after under boring below the roundabout on Tennyson and Gordon Streets.

Conduits have been installed - ready for Ergon Energy Network to install the electrical cables later in the program of work - and the trenches temporarily backfilled. This is a temporary finish, with full reinstatement of the road and footpaths in the work area scheduled for later in the project when all the cable installation works are complete.



Fig 8 – Temporary reinstatement of road after trenching works.

Stage 3 - Gordon Street North West

This phase of work involved excavation along the north-west section of Gordon street in front of Jeff's Bikes and Focus on Flooring Xtra. These works included the installation of conduits for electrical cables along Gordon Street. In a future stage of works, Ergon will run the high voltage electrical cables which will connect to the electricity network back towards Shakespeare Street.



Fig 9 – Gordon Street works in progress.

Next stages of the project....

Stage 4 - Shakespeare Feeder installation in Tennyson & Gordon Streets

Jai-Cor will be finalising the civil works to the south of the Mackay City Substation over the coming weeks. This work will include the remaining civil works described in our [June Update](#) for the Shakespeare Feeder. This phase of civil works is schedule to be completed in September.

As a reminder, Jai-Cor will trench along Tennyson Street to the corner of Gordon Street in the south. They will then bore under Gordon Street, from the corner of the roundabout next to Flooring Xtra, across to the other side of the road in front of Ideal Electrical. Trenching will recommence along the footpath in front of Ideal Electrical and conduits will be laid.



Fig 10 – Stage 4 – planned Tennyson and Gordon St civil work.

Traffic control will be in place along the work sites, with through traffic permitted and controlled pedestrian access to ensure community safety. The car parks in front of Ideal Electrical on Gordon Street will be unavailable at times throughout this phase of work.

Distribution network upgrades (scheduled to commence in September)

With the underground conduits for the electrical cables from the new Mackay City Substation installed, we will shift our focus in September to preparing the surrounding electricity network. Ergon will then install the high voltage electrical cables in the conduits and connect them to the substation and surrounding distribution network.

This phase will involve work on the overhead network of poles and wires and will include several pole replacements in Gordon Street and the upgrade of electrical hardware.

We are in the final stages of planning this phase of the works. A detailed outline of these works will be provided in the next project update.

Getting in touch with us

We will continue to provide you with updates as each stage of the work progresses.

As always, we thank you for your patience while these works are underway and encourage you, if you have any questions about the Mackay City Substation Refurbishment Project, to contact Kate Austin - Senior Community Engagement Advisor - on 1300 653 055 or email us at:

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/tennyson-street-substation-refurbishment>