

Mackay City Substation Upgrade - Project Update



March 2021

Major milestones celebrated and final phase of civil works in Tennyson Street

Transformer No 1 energised

The project team recently celebrated some major milestones including the energisation of the new Mackay City substation's Transformer No 1 and the commissioning of the electrical switchboards.

This will allow us to start to transfer Mackay's CBD electricity load from the old Tennyson Street substation to the new Mackay City substation.

What's going on behind the curtain?

Some of our customers are wondering, 'What's going on behind the curtain in Tennyson Street?'



Fig 1 – 'Behind the curtain' - cable pit in Tennyson Street

The cordoned off work site in front of the Mackay City substation has been erected around an excavated area

of Tennyson Street. Here we have created a cable joint bay where the cables leaving the substation are connected to the electricity cables that supply the surrounding distribution network. These cables supply electricity right across Mackay's CBD and eastern suburbs. This work is scheduled to be completed by the end of March and the roadway will be reinstated.



Fig 2 – Cables from the surrounding electricity network are connected to cables from the new substation.

A big push forward on the Tennyson Street civil work

Tennyson Street north to Victoria Street

The first stage of the civil works will involve excavation of Tennyson Street from the new substation to the north towards Victoria Street – see Figure 3.



Fig 3 – Excavation path for conduit trenches that will house the high voltage cables out of the substation down to Victoria Street.

To limit disruption to our business neighbours, our civil contractors will trench small sections at a time and lay the conduit for the electrical cables. Each section of the trench will be temporarily reinstated so that driveways and carparks can be accessed. The new cables will be run through the conduits to connect the substation to the electricity network that supplies electricity to the CBD area along the river.

The old cables, which run under the footpath and connect to the old substation, will be removed and the footpaths and roadways will be permanently reinstated. This work is anticipated to be completed by June.

Gordon Street to the east

Work to install conduits for the electrical cables supplying the eastern suburbs, from the substation down Tennyson Street and into Gordon Street, was completed in 2020 under earlier stages of the project.

The next phase of work for the area in front of Inner Labyrinth and Watson’s Fencing will involve the recovery of old electrical cables and the permanent reinstatement of the roadway, associated traffic islands around the roundabout and footpaths as indicated in Figure 4.

This phase of the work is scheduled to be completed by the end of May.



Fig 4 – Cable recovery and reinstatement path along Gordon Street to the east.

Eastern side of Tennyson Street

Reclamation of the old cables along the eastern side of Tennyson Street in front of the Aurecon building (see Figure 5) and the final reinstatement of the footpath and roadways in that area will commence at the end of March.

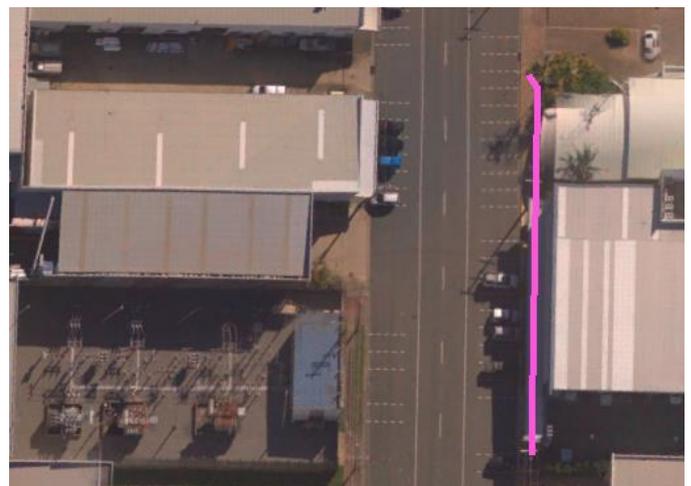


Fig 5 – Reinstatement path for eastern side of Tennyson Street.

Gordon Street to the west

Work in Gordon Street to the west, adjacent to Jeff’s Bikes and Flooring Xtra, will commence in April. We will be accessing cable pits and transferring the electricity supply from the cables connected to the old Tennyson Street substation across to the cables connected to the new Mackay City substation – see Figure 6.

Again, once this work is complete, old cables will be removed from the ground and the footpaths and roadway will be permanently reinstated.



Fig 6 – Path for final reinstatement works along Gordon Street to the west.

Why does Ergon recover old cables?

We have been asked why we need to dig up roadways again in order to recover the old cables. To limit disruption to the electricity supply whilst we are building the new Mackay City substation for our customers in the CBD and eastern suburbs, we need to progressively transfer the electricity load from the old substation to the new. This means that we need to lay the conduits and electrical cables for the new Mackay City Substation whilst the old Tennyson Street substation is still in service and supplying electricity to the area. While this does cause a bit of civil works in the area, it significantly reduces the frequency and duration of power outages associated with the new substation build.

A range of utilities have services, including electricity, telecommunications, water and sewerage assets, located underground and it can get quite congested in

areas like the CBD where there are a lot of services in the same area. Utilities strive to limit their underground assets to only those that are in service.

For Ergon, it's important that only our operational cables remain in place. It's important during an electricity outage that we can locate our cables quickly and safely, so that we can restore power to our customers as soon as possible. Removing old cables helps to improve safety for our crews and contractors who are digging underground and means we are not wasting time trying to locate the right cable in an emergency.

It's also better for the environment to remove redundant cables, rather than leave them in the ground indefinitely, as they can deteriorate over time. Recovered cables can be recycled, which is good for the environment and can help to reduce the overall costs of the project.

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 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>

