

Stuart Substation Cable Upgrade Project Update



ERGON ENERGY NETWORK

Part of Energy Queensland

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We're making upgrades at Stuart substation to improve the reliability of the local electricity network

Stuart substation cable upgrades

Townsville's southern suburbs have faced steady population growth in recent years, so to bolster the power supply and improve network performance, Ergon Energy network is investing around \$1.5M in upgrades at the substation and sections of the surrounding overhead electricity network.

The project, which commenced in May, will help to improve the reliability and security of the electricity supply around Alligator Creek, Cape Cleveland, Cluden, Cungulla, Elliot Springs, Julago, Nome and Stuart.

Importantly, the upgrades will also give our teams more flexibility when operating the network. It will allow the team to shift loads and reduce the size and duration of outages.

Early works have commenced

Work has commenced on the project which will upgrade three high-voltage 11,000-volt (11kV) underground cables from Stuart substation. Our project team have been busy completing a range of early works, both at Ergon's Stuart substation – see figure 1 - and the surrounding overhead network.

Our surveyors have been on site to map the area, confirming the locations of existing assets and identifying the locations where the new cables will be installed – see figure 2 in preparation for our civil contractors to start excavation works.



Fig 1- The project manager inspects the old cables which will be replaced this year as part of the upgrade project.



Fig 2- Surveying the area to identify existing assets and map the locations for the new cables.

Civil works commenced in late May at Stuart substation, with contractors excavating trenches to install conduit – see figure 3. These conduits will house the new 11kV cables that connect Stuart substation to the surrounding overhead electricity network.



Fig 3 – Excavation of trenches where conduits are being installed to house the underground cables.

More upgrades to the overhead electricity network

In conjunction with the cable upgrades at Stuart substation we're also taking to the skies to complete a range of improvements on the overhead electricity network.

Allendale Road, Alligator Creek

Residents of Alligator Creek may have seen some of the crew from Townsville's overhead team in the area recently. They were installing a new high-voltage pole and gas switch on the network near the servo at Allendale Road, Alligator Creek – see figures 4 and 5. This remote gas switch, and others like it being installed on the network in the area, is a form of smart network protection.

When these gas switches detect a fault, they are designed to switch off power supply to the area to make the network safe, and limit network damage.

In most cases, these switches will turn the power back on after 5 seconds in the event of a transient fault, like when they detect lightning, birds, or clashing wires during storms.

These types of automatic switches also help us to find faults faster, to reduce the number of customers affected by the fault, and to support load transfers.



Fig 4 – Townsville's overhead crews dress a new pole ready for a gas switch to be installed at Alligator Creek.



Fig 5 – It was all hands on deck as the overhead crews installed a new high-voltage pole and gas switch at Alligator Creek.

Southwood Road and Hunter Street, Stuart

Our overhead crews have also been busy in the streets around Stuart substation where, as part of the upgrades, they have installed several new poles and completed a range of maintenance activities. This maintenance involved replacing two poles and a range of cross arms in Southwood Road, improving the safety and reliability of the electricity supply in the area – see figures 6.



Fig 6 – Local Townsville overhead crews install a new pole and replace poles and crossarms as part of the work to upgrade the local electricity network.

Project next steps

June is going to be another busy month for the project team, with several more upgrades scheduled on the surrounding overhead network including replacing several hundred metres of powerline on Stuart No 2 and No 5 feeders.

This work is great news for residents and businesses, as these jobs will help to improve the overall safety and reliability of the network and support the upgrades at Stuart substation.

The upgrades to the high voltage exit cables at Stuart substation will kick off towards the end of June.

Getting in touch with us

To keep up to date on the project, provide feedback, or to **register for future updates via email or SMS**, simply visit our project webpage www.ergon.com.au/stuart-sub-project, or scan the QR code.



You can also contact our Senior Community Engagement Advisor, Kate Austin on 1300 653 055 or email us at: NetworkProjectEngagement@energyq.com.au

