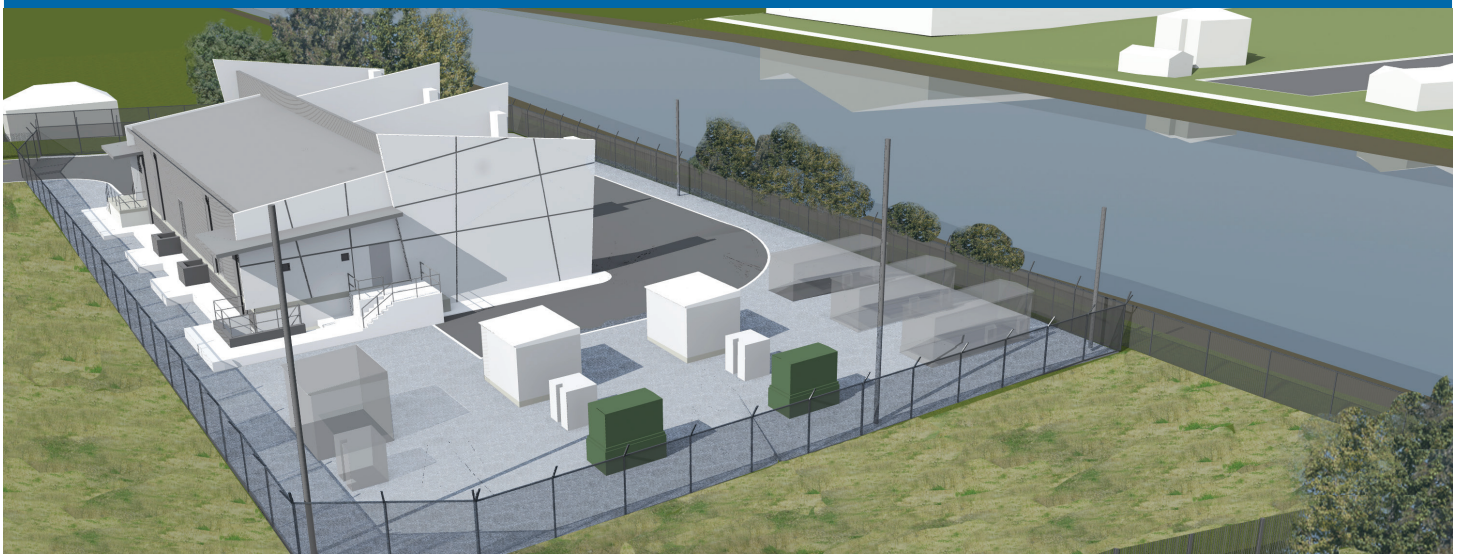
Community Newsletter – December 2015
Tighes Hill Substation Project



Architect's impression of new Tighes Hill substation

Substation plans going ahead

Ausgrid is proposing to construct a new zone substation on vacant land at 73 Elizabeth Street in Tighes Hill.

The substation is required as a replacement for the existing zone substation located on the corner of Elizabeth and Hannell Streets, Carrington. This facility entered service in 1967 and major equipment is approaching the end of its serviceable life. A new substation is required before that equipment becomes unreliable.

Community consultation for the project began in 2010 and the substation was approved for construction in 2012. At that time the plans were put on hold to allow Ausgrid to review the latest electricity needs in the area to be supplied by the new substation.

That review has been completed and Ausgrid is providing the local community with another opportunity to review the design and provide feedback before the project is again assessed for construction approval.

Why are substations needed?

Zone substations are part of the power supply chain that delivers electricity to customers.

Their components include transformers that convert electricity to lower voltages and equipment for switching and protection that allows us to safely operate and maintain the electricity network.

A zone substation is supplied at high voltage (in this case, 33,000 volts) and this is converted by the substation's transformers to 11,000 volts for distribution into the community.

Smaller substations, such as the ones you may have seen in large green boxes by the side of the street, or mounted on the side of power poles, then convert power to voltages suitable for use by homes and businesses.

Your say on substation plans

As mentioned earlier in this newsletter, feedback from the community has been incorporated into the latest design, as have specific initiatives, such as providing access for the public from Elizabeth Street to Throsby Creek.

The updated plans are being shown to provide the community with a final opportunity to ask questions and make comments for consideration before we finalise the designs for assessment and construction approval.

This newsletter is to provide you with an overview of the proposed substation design and let you know how to provide feedback for consideration as we finalise the plans.

Architect's impression of substation as viewed from William Street Bridge loking east and (below) proposed layout of new Tighes Hill substation

Building design

Ausgrid and architectural firm Schreiber Hamilton have prepared plans for the proposed new Tighes Hill zone substation. The architect's sketches of the building and substation layout are shown in this newsletter.

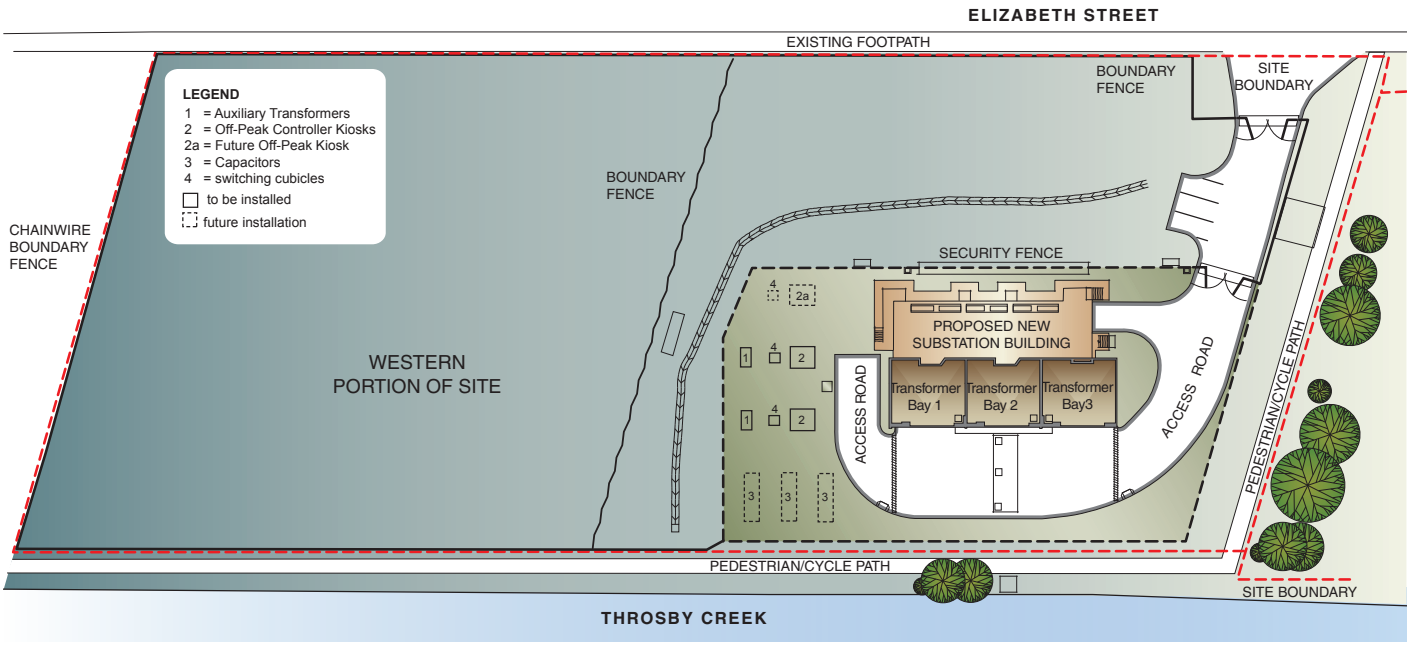
The building has a modern character and is designed to suit the site and also to meet the substation's engineering requirements as well as building code and safety standards. This building would house the majority of the electrical equipment.

This is very similar to that previously shown to the community, but there have been minor changes to reflect some of the feedback received during earlier community consultation. The substation's position on the site has been moved further to the south, away from Elizabeth Street, and the height of the walls between the transformer bays reduced.

The operating voltage and configuration of the main elements of the proposed facility are the same as outlined in earlier community information.

Two transformers would be installed. A third transformer bay would also be constructed, but it will only be used if the electricity load in area grows significantly in the future. Current forecasts indicate this will not happen in the next 10 years.

The proposed exterior materials are a combination of painted concrete panels and a colorbond roof. The boundary fence would be black chain wire and an inner security fence would be erected directly around the substation equipment to prevent unauthorised access.



Architect's impression looking south east to the site

Connecting the new substation

In 2010, the two 33,000 volt cables supplying Carrington zone substation were replaced with new cables. These follow an underground route from Hamilton South, via Hamilton and Maryville, under Throsby Creek to 73 Elizabeth Street, and then along Elizabeth Street to Carrington zone substation. Supply for the proposed Tighes Hill zone substation would be from these new cables.

Underground ducts for new 11,000 volt cables to distribute power from the substation into the community are already in place around the proposed substation site.

A new connection from Tighes Hill to Maryville will be installed as part of meeting electricity demand in that area. This will be done by boring under Throsby Creek to Northumberland Street. Once the substation is approved and constructed, this connection would also become part of the substation's network supplying power to the community.

Environmental assessment

An environmental assessment, known as a Review of Environmental Factors (REF), is being prepared for the project as required by Part 5 Environmental Planning and Assessment Act 1979 and Clause 228 of the Environmental Planning and Assessment Regulation 2000.

The REF investigates the potential environmental impacts associated with the construction, operation and maintenance of the proposed substation.

It also recommends mitigation measures, as required, to ensure any impacts are at acceptable levels.

The document will be finalised following any further input on the project from the community.

Project assessment and approval

Under the Environmental Planning and Assessment Act, 1979 and the State Environmental Planning Policy (Infrastructure) 2007, Ausgrid is the determining authority for this project.

Following completion of the REF, Ausgrid will make a determination of the project's approval based on information in the REF.

Because of changes to the design and the length of time that has passed since the 2012 approval, Ausgrid is undertaking a new approval process for the project. This process includes statutory notifications to Newcastle Council and adjacent land occupiers.

Ask questions or provide feedback

Ausgrid welcomes your questions and feedback.

Members of the project team will be visiting neighbours when distributing of this newsletter to answer questions and discuss the project.

Please contact us with any inquiries or to arrange a time for us to visit and talk about the project.

You can send your comments or suggestions by the close of business on Friday 15 January 2016:

Email

majorprojects@ausgrid.com.au

Post

Ausgrid Tighes Hill substation project
Attention Robert Mitchison – Development Manager
PO Box 487
Newcastle NSW 2300.

View from across Throsby Creek

Next steps

Ausgrid invites you to review the proposed substation designs, ask any questions and provide feedback.

We will review community comments and take them into consideration in finalising the plans and completing the REF.

Following preparation of the REF, Ausgrid will assess the project for construction approval based on information contained in the REF.

Subject to project construction approval, construction would start in early 2016.

Construction by our builder would take approximately 12 months. Work to install and connect the electrical equipment would take a further 10 months, but most of this part of the project will be done inside the new building with minimal impact on the local neighbourhood.

You will receive a further update on the project in early 2016 when we have reviewed feedback and assessed the project for construction approval.

Project timeline

Contacting us

You are welcome to contact us with any enquiries:
Call 1800 152 048 (free call from fixed phones)
Email majorprojects@ausgrid.com.au
Visit www.ausgrid.com.au/tigheshill

Interpreter service 131 450

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