

# Piako 110/33kV GXP Substation Planning

<b>INDUSTRY SECTOR:</b>	Distribution - Stations
<b>EDISON SERVICE:</b>	Planning and Consents
<b>CLIENT:</b>	PowerCo



## Project Overview:

PowerCo identified the need to increase capacity and provide a secure electricity supply to meet the future growth expected in the Morrinsville area. A 110kV transmission line to Waihou Substation passes within 3km of PowerCo's existing Piako zone substation which was supplied from Waihou by PowerCo's 33kV sub transmission network.

## Edison Delivery:

Edison was engaged by PowerCo to manage and deliver the planning consenting and enabling stages of the project. Including the following aspects;

- Consult with the local community to secure options for property easements for a transmission line route, and property purchase for a switching station with ownership to be transferred to Transpower
- Obtain local authority and planning permission for the substation, transmission line and switching station
- Manage preliminary technical design of the transmission line and substation and secure construction pricing through a tender process
- Removal of 33kV lines across the site
- Construction of the foundation pads for the primary equipment
- Engage with Transpower over design, property and consenting matters

This work included evaluating suitable design options such as an overhead line versus underground cable, and identification of potential line routes.

Edison carried out the consultation with the affected property owners and secured options to progress to an easement.

Edison contributed technical input to PowerCo's environmental assessments to consider the impact of the proposed works. A preferred route was identified, and a Notice of Requirement was prepared and lodged with the Matamata Piako District Council for the 110kV line route.

A designation was granted to PowerCo enabling the design and construction of the line in conjunction with Transpower. The project was successfully delivered with Transpower being responsible for the construction of the 110kV transmission line and substation primary plant, and PowerCo responsible for the civil works on the substation site.

The new connection is the primary supply to PowerCo's Piako, Morrinsville, Farmer Road Tatua and Walton zone substations removing a significant portion of load from the previously near capacity Waihou substation.

## Client Feedback:

***"The Piako 110/33kV GXP was a complex and critical project to secure PowerCo's network in the Morrinsville area. Edison's contribution recognised that urgency and remained focused throughout."***

***Peter Armstrong, PowerCo***