Part of the Energy Queensland Group

Operational Update

Energex Contestable Works
11kV Feeder Spurs

Issue # C-0024 – 05/02/2021

Target Audience:

Energex Accredited Service Providers – Design & Construction

Introduction

This Operational Update outlines the requirements of when a loop in / loop out arrangement is required for 11kV feeder spurs on Contestable projects for both overhead and underground reticulation.

The relevant Energex manuals and standards will be revised to reflect this update.

General

The maximum allowable installed transformer capacity of a residential multi-transformer 11kV feeder spur is 1.2MVA for overhead and underground 11kV feeders. The capacity shall be determined from the total of the nameplate ratings of the connected transformers on the 11kV feeder spur. It is not calculated using the number of customers or actual load.

A spare 11kV conduit must be installed from the start of the 11kV feeder spur to the last transformer on the spur. This is to allow for future looping in / looping out and cable replacement of the 11kV feeder. This may not always be practical, however approval not to do so must be obtained from the Contestable Works team.

Commercial & Industrial Developments shall only have loop in / loop out arrangements.

Energex may mandate loop in / loop out arrangements based on projected future developments, future undergrounding of overhead, and or reliability for planned and unplanned outages.

Parallel Branch Joints

Parallel Branch Joints are not permitted where the development is master planned or multistage.

In areas that are not master planned or the development is not multistage, a parallel branch joint may be used to supply a single transformer with nameplate rating of no more than 315kVA. A spare 11kV conduit shall be installed from the location of the branch joint to the transformer to allow for future looping in / looping out of the 11kV feeder.

Approval is required from the Contestable Works team for any parallel branch joint proposed for installation.

11kV feeder ties and loop in / loop out arrangements for Subdivisions

The preferred arrangement for operational flexibility, reliability and maintaining supply to customers, is a loop in / loop out or an 11kV tie arrangement.

Developers are responsible for the design and construction of any 11kV feeder ties associated with and required by a contestable project.

Master planned and multistage developments must reduce the number of 11kV feeder spurs to a minimum through effective 11kV planning.

Masterplan and multistage developments may construct large 11kV feeder spurs before the ultimate 11kV feeder ring or the 11kV feeder tie is closed. These progressive 11kV feeder spurs must be negotiated with the Contestable Works team and based on stage timing and ultimate 11kV concepts.

Community Title Schemes and Manufactured Home Parks

If the ultimate loading of the Community Title Scheme or Manufactured Home Park requires the installation of more than two transformers, (regardless of their kVA size), an 11kV loop in / loop out arrangement shall be installed in the development.

To maintain flexibility in the 11kV network, a 4-way RMU may be required where the 11kV network enters the development. This is to avoid the having 11kV backbone looping in and out of the development and reliability to customers outside the development should there be a problem.

Non-Standard approvals

For non-standard 11kV feeder proposals the consultant will be required to submit a detailed proposal for consideration by the Contestable Works and Network Management teams.

Energex will assess the proposal to consider the network reliability and performance outcomes. Approval will be given if Energex finds the proposal satisfactory.

Implementation Date

Effective immediately for all projects that do not have a Subdivision Electricity Supply Agreement in place.

For more information contact:
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