"Transmission or Distribution"

Phil Collins

March 18, 2005

CUSC Principles of Ownership

- Power Station
 - Busbar clamp on busbar side of busbar isolators on generators circuit
- Distribution System
 - Busbar clamp on busbar side of busbar selector isolator on distribution circuit
 - If no busbar exists, an equivalent isolator
 - If no isolator exists, an agreed bolted connection at or adjacent to the tee point
- Non-Embedded Customer
 - Clamp on circuit breaker side of cable disconnections at User's substation

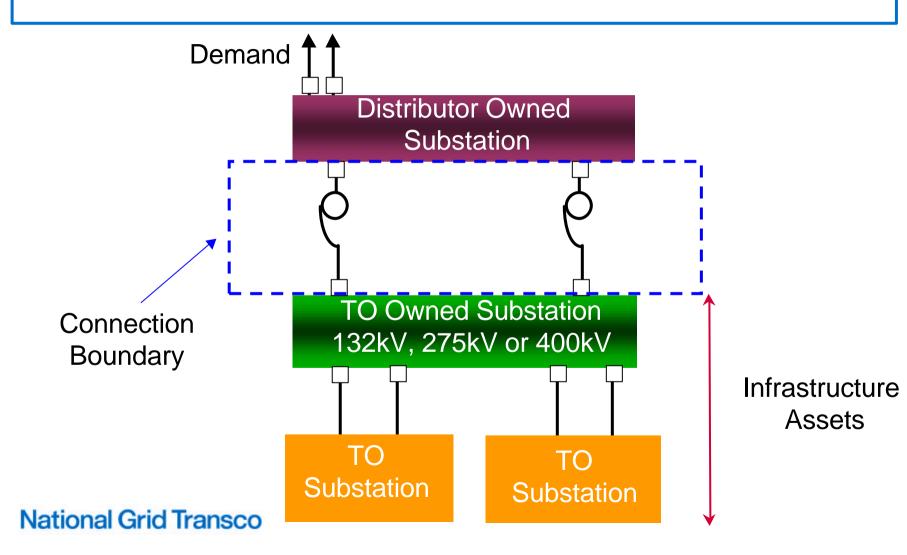
Overview

- Transmission Connection Boundary Definition:
 - Shareable or potentially shareable assets classed as Infrastructure
 - Substations and associated site infrastructure and land classed as Transmission Infrastructure
 - Generation only Spurs are Transmission Infrastructure
 - Shared substations where National Grid or TOs own the busbars and transformer circuits connecting shared LV substations are Infrastructure
- Grid Supply Points
 - DNO has no right of export
- Embedded Connections
 - Non Contiguous Connections

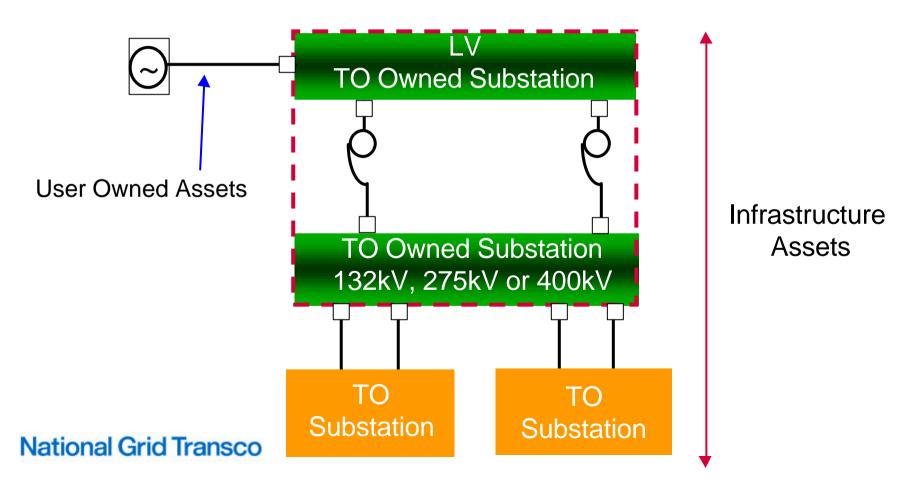
National Grid Transco

Transmission Connection Examples

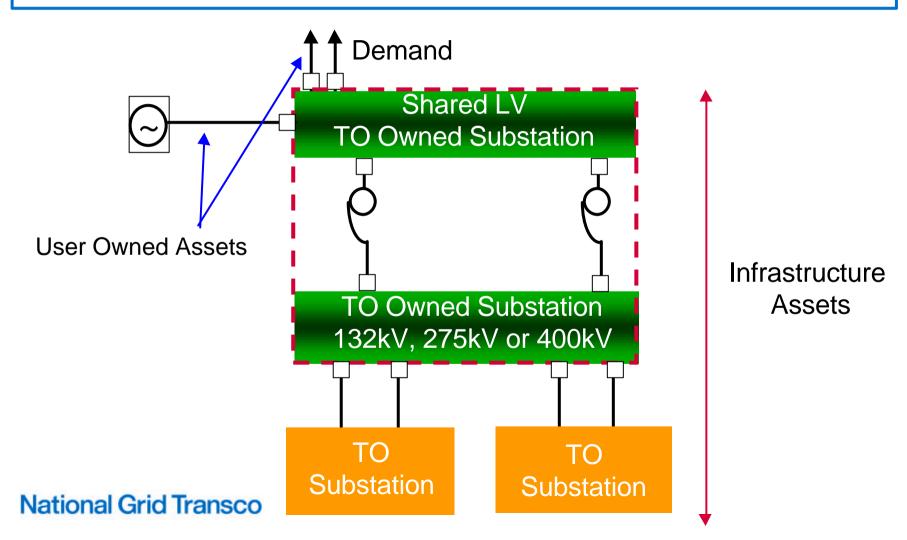
Single DNO T Connection



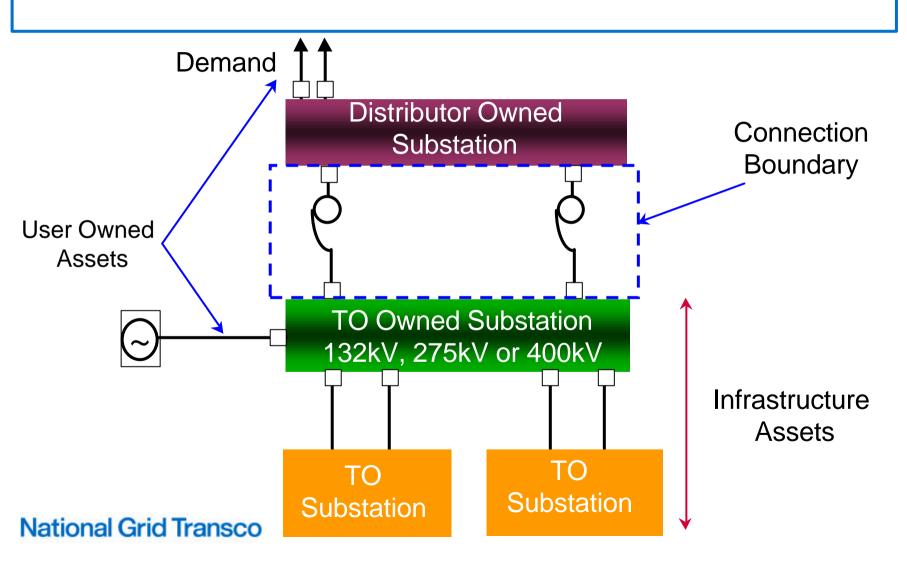
Single T Connection



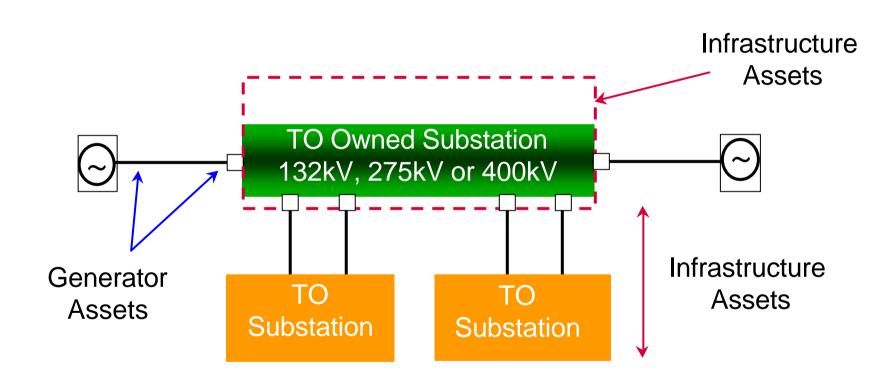
Shared T Connection



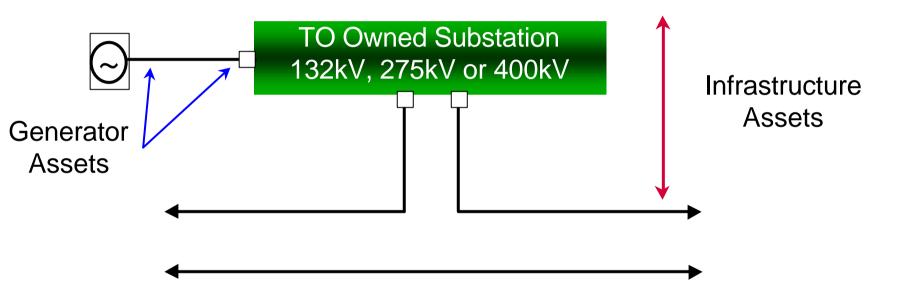
Generation and Demand Connection



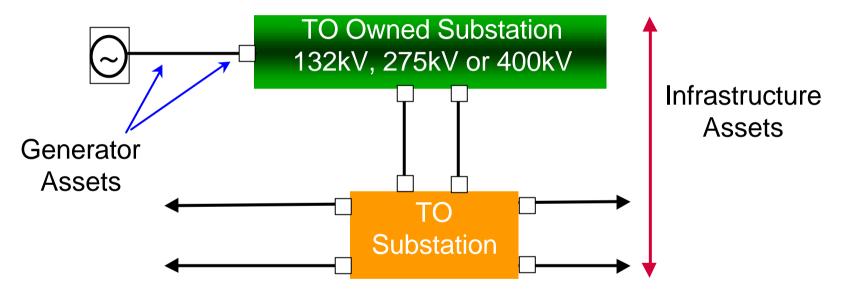
Generation Only - Non Spur Connection



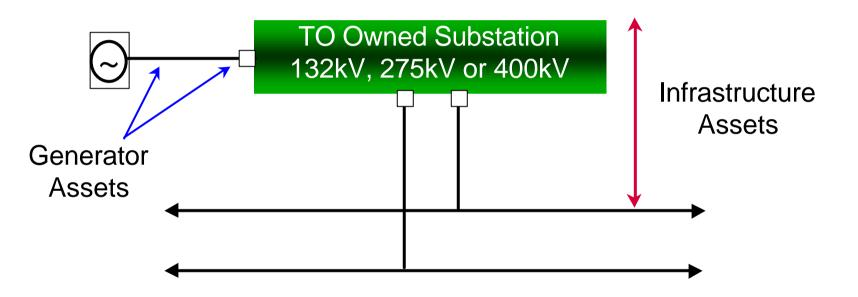
Generation Only Spur (Turn in)



Generation Only Spur (Remote sub)

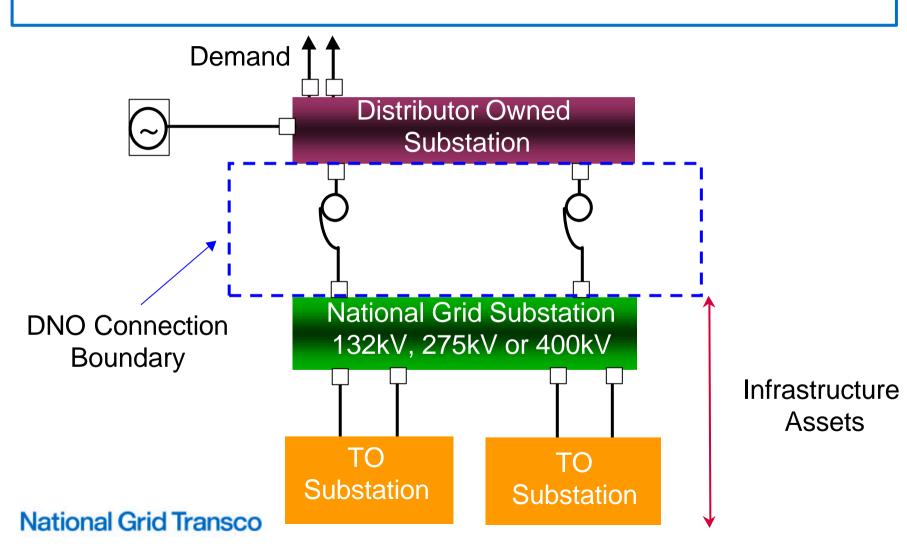


Generation Only Spur (Tee)

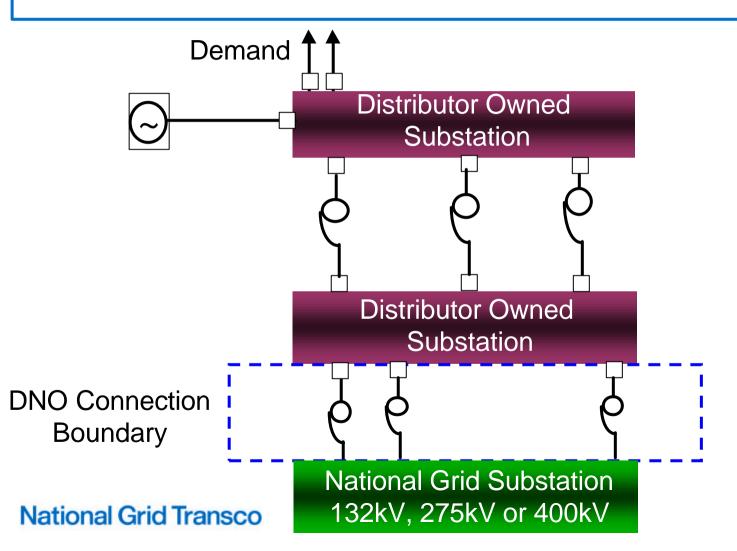


Distribution Connection Examples

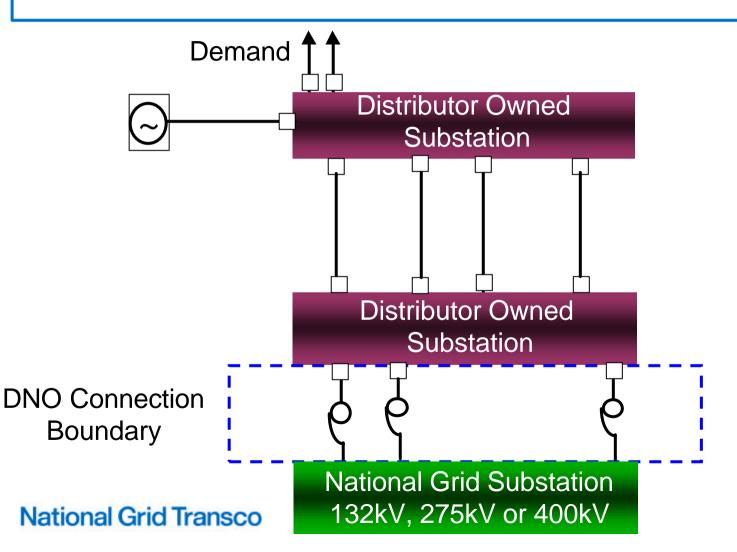
DNO Connection with embedded generation and demand



DNO Connection with embedded generation and demand

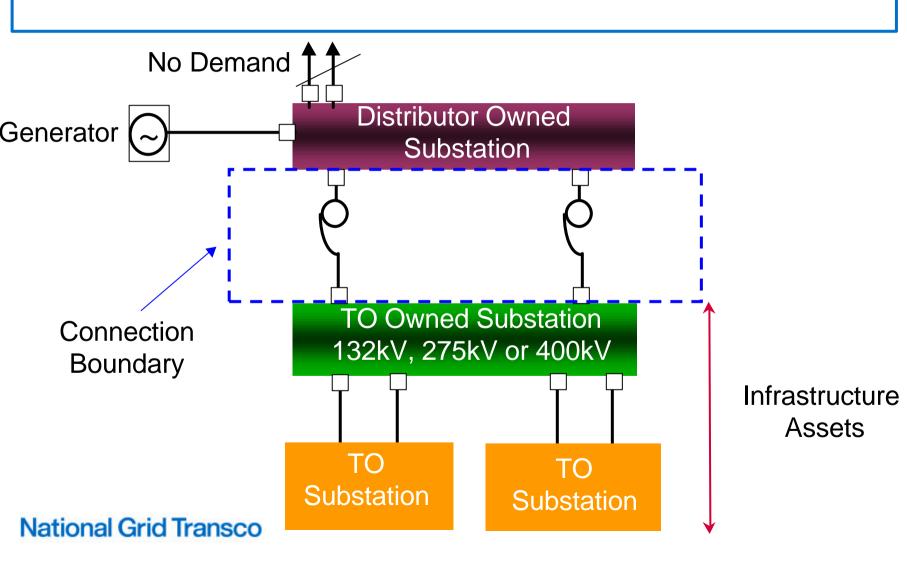


DNO Connection with embedded generation and demand



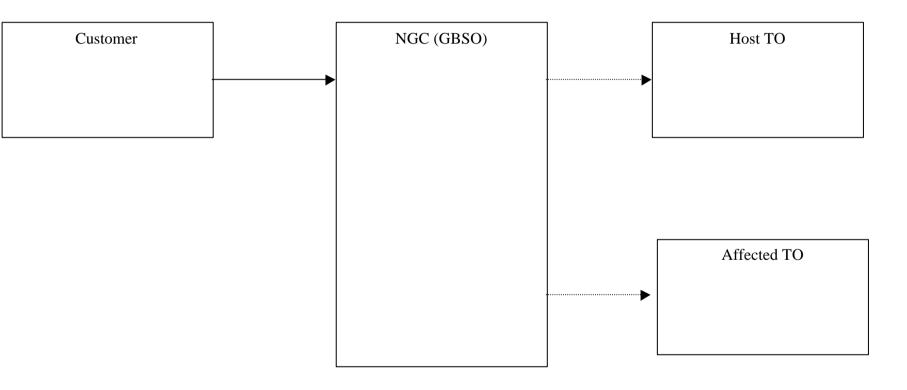


What am I?



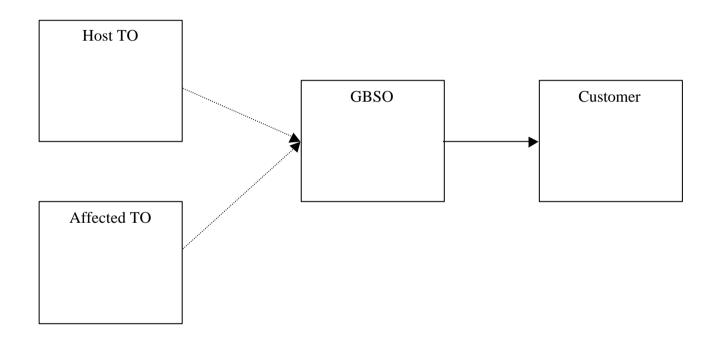
Application Process - Transmission

Transmission Application Process Applications

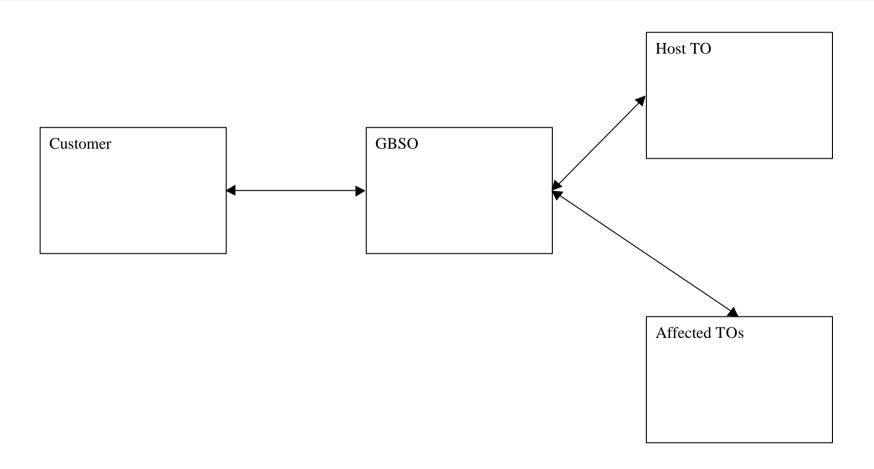


National Grid Transco

Transmission Application Process Offers



Transmission Application Process Offer Acceptance

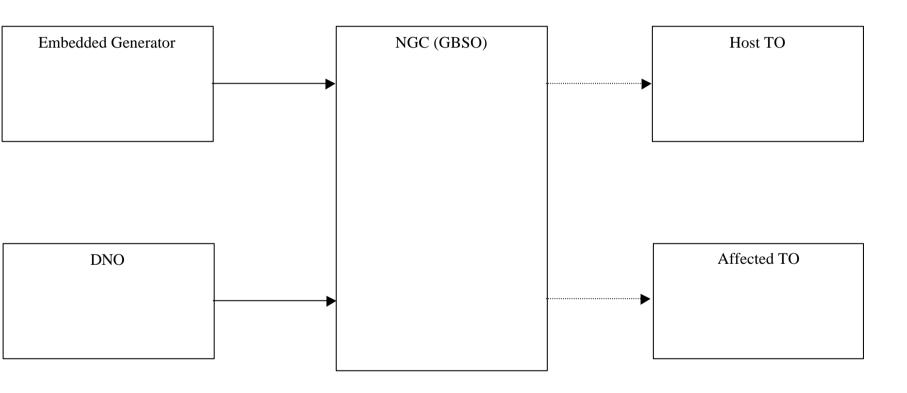


Transmission Application Process Summary

- User makes application
- GBSO makes an NGC Construction Application if required
- TO make TO Construction Offer (TOCO) if works are required
- GBSO makes Offer to Customer
- Customer signs and returns Offer
- GBSO signs Offer and TOCO
- GBSO returns TO Construction Agreement

Application Process - Embedded

Embedded Application Process Summary



National Grid Transco

Embedded Application Process Key Attributes

BEGA

- User Applies
- NGC Construction Application
- TO Construction Offer (null)
- BEGA Gets Construction Agreement and Bilateral Agreement
- NGC makes Mod Notice to DNO (possible CONSAG)

BELLA

- User and DNO Applies
- NGC Construction Application
- TO Construction Offer (null)
- BELLA gets Bilateral Agreement and DNO gets Construction Agreement

National Grid Transco