

Overview of Transmission and Statement of Works



John Perkins

John.Perkins@uk.ngrid.com

Content

- Electricity Transmission Overview
- Roles of Transmission Owners and System Operator
- Statement of Works Process
- Next Steps
- Related Information

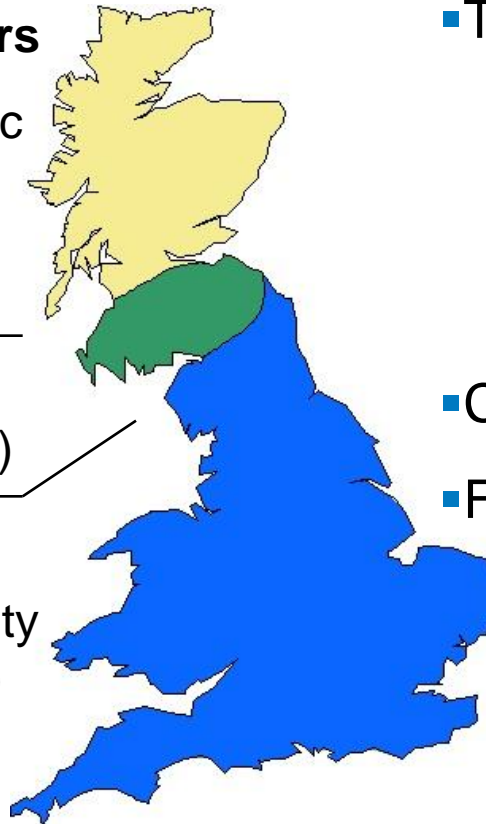
Electricity Transmission

Transmission Owners

Scottish Hydro Electric
Transmission Ltd
(SHETL)

Scottish Power
Transmission Ltd (SP)

National Grid Electricity
Transmission (NGET)



- Transmission voltages
 - 400 KV
 - 275 KV
 - 132 KV
- Currently 80 GW connected
- Future 80 GW (150 projects)
- Average project sizes:
 - Scotland ~200MW
 - England and Wales ~ 1GW

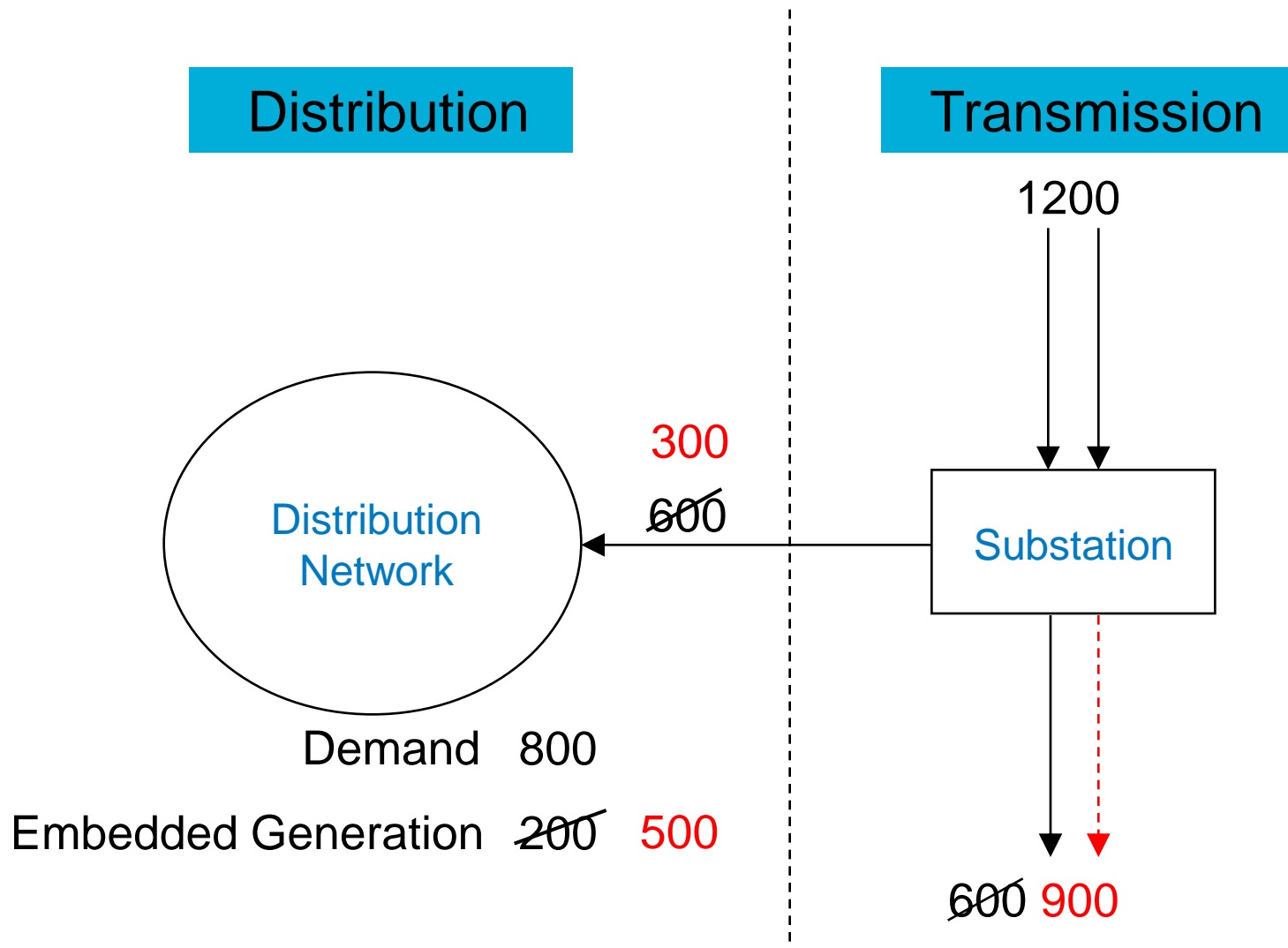
National Grid is **System Operator** for all 3 Transmission Owner areas

Roles of Transmission Owners and System Operator

- Transmission Owners
 - System Design and Investment
- Transmission System Operator
 - Operation
 - Constraints
 - Demand forecasting
 - Processing of all GB Transmission connection applications

Embedded Generation impacts all of these

Impact of Embedded Generation on Transmission



Statement of Works

- Process to determine if there is an impact on Transmission system
- DNO pays application fees for the SOW process
- Connection dates dependent on completion of Transmission “Enabling” works (Connect and Manage)
- DNO security liability for any Transmission works

Statement of Works Process

Process	Timescales
1. Application	
2. DNO impact decision	
3. Statement of Works (SOW) process	28 calendar days
4. Project progression decision	90 business days
5. National Grid offer to DNO	3 months
6. DNO-User contracting	3 months

Next Steps

- Proposed Enhancements:
 - Improved guidance for embedded generation via website
 - Review of application fees
 - Clarity on when Statement of Works required
 - Simplify TO processes
- Here to listen to views, comments and ideas on how process can be improved

Related National Grid Documents

■ Transmission Connections Activity

- <http://www.nationalgrid.com/uk/Electricity/GettingConnected/ContractedGenerationInformation/TNQuUpdate/>

■ Explanation of Connect & Manage Regime

- [Guidancehttp://www.nationalgrid.com/NR/rdonlyres/01463C70-F178-4930-9A00-780FE5330F2D/47332/CMversion50.pdf](http://www.nationalgrid.com/NR/rdonlyres/01463C70-F178-4930-9A00-780FE5330F2D/47332/CMversion50.pdf)

■ Information on Operation of Connect & Manage

- <http://www.nationalgrid.com/uk/Electricity/GettingConnected/PoliciesAndGuidance/>

■ Proposals to Change User commitment (CMP192)

- <http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/amendments/currentamendmentproposals/>

■ Transmission Charging Statements

- <http://www.nationalgrid.com/uk/Electricity/Charges/>

Related Industry Documents

- Ofgem review of Transmission charging (TransmiT)
 - <http://www.ofgem.gov.uk/Networks/Trans/PT/Pages/ProjectTransmiT.aspx>
- DECC proposals for Electricity Market Reform
 - <http://www.decc.gov.uk/en/content/cms/consultations/emr/emr.aspx>
- Elexon's Overview of Embedded Generation Benefits
 - http://www.elexon.co.uk/ELEXON%20Documents/overview_of_embedded_benefits.pdf