

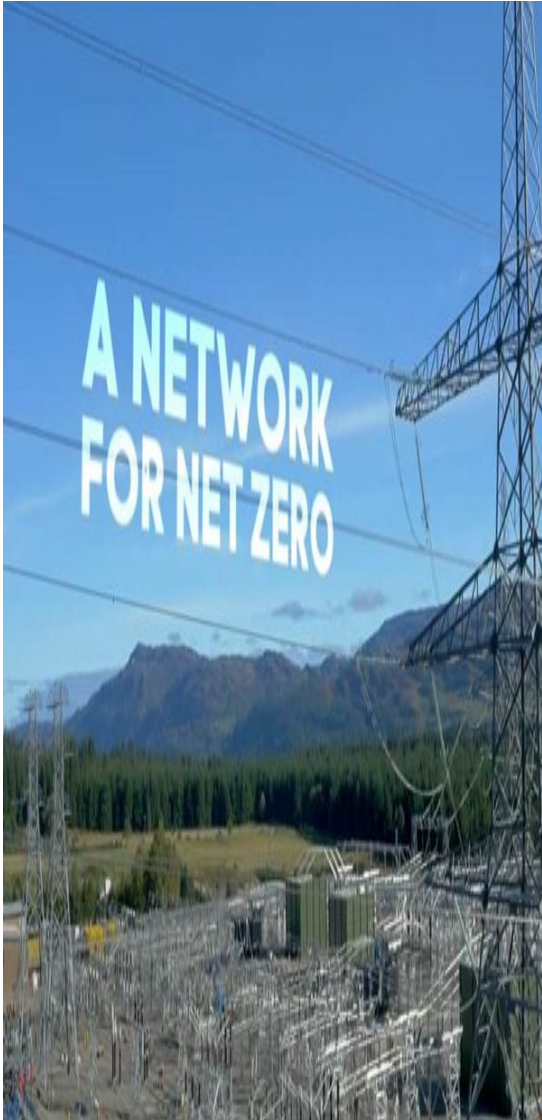
How do you solve a problem like  
TNUoS?



**Scottish & Southern**  
Electricity Networks

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TRANSMISSION



## About Us

- Ø As a Transmission Owner (TO) we maintain and invest in the high voltage 132kV, 275kV and 400kV network in the north of Scotland
- Ø Our license area extends **over a quarter of the UK's land mass** crossing some of its most challenging terrain.
- Ø Our RIIO T2 **stakeholder led business plan** was awarded the **Highest Confidence Reward** out of all TOs.
- Ø Agreed **a baseline total expenditure of £2.16bn.** to deliver a Network for Net Zero including **capacity and flexibility to accommodate 10 GW renewable generation** in the north of Scotland by 2026
- Ø We are the world's first electricity networks company to receive external accreditation for a science-based target in line with a 1.5°C global warming pathway.

## Transmission Network Use of System (TNUoS) Charges

- A charge to recover the cost of the installation and maintenance of the transmission network.
- Both generation and demand pay to use the transmission network through TNUoS.
- Generators are charged based on their declared capacity, known as Transmission Entry Capacity (TEC). Energy suppliers pay TNUoS based on the actual electricity demand of their customers.
- The Electricity System Operator (ESO) recovers the revenue on behalf of the Transmission Owner (TO)
- Detail of the charging methodology is detailed in Section 14 of the Connection Use of System Code (CUSC).
- Network charging is regulated by Ofgem.

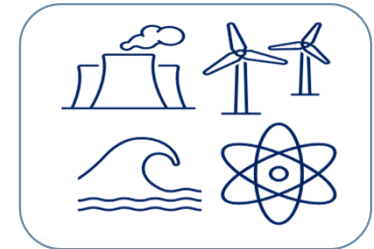
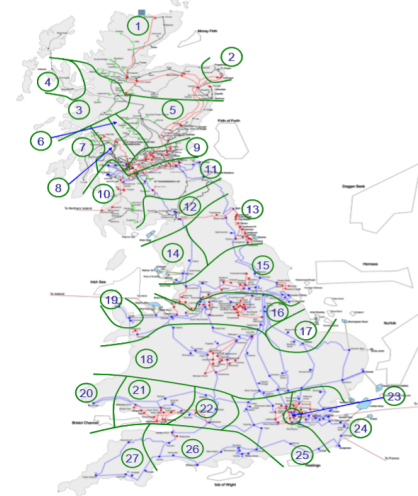


## Generation TNUoS

Local Circuit & Substation Tariff

The locational charge (Wider TNUoS)

The Adjustment Factor



£ / MW / kM

# Why are we involved in TNUoS

## Our stakeholders have told us...

- ∅ The cost of wider TNUoS could effect the sustainability of their projects.
- ∅ Wider TNUoS is far more expensive in the north of Scotland than anywhere else in GB.
- ∅ Wider TNUoS is a barrier to entry, costs are volatile and unpredictable.

## How does this affect us?

'Put simply, timing and sizing uncertainty for generation developers translates to timing and sizing uncertainty for network investment.'



## The critical importance of renewable generation required from the NoS

NoS FES 2021 tells us we need significant renewable capacity to support GB reaching net zero.

20-23GW  
by 2030

33-37GW  
by 2050



Home to 2%  
of the UK  
population

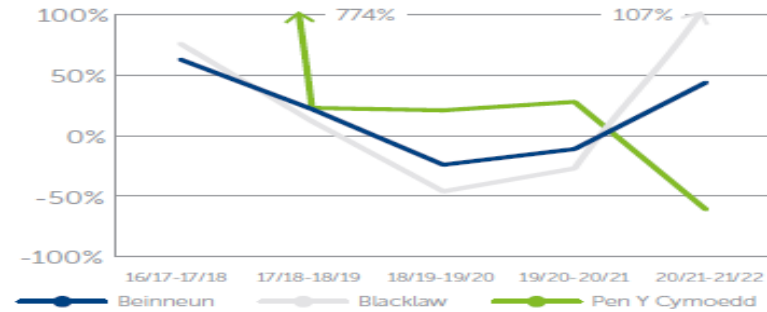


Contributing  
**10%**  
Of total action  
needed to achieve  
UK net zero.

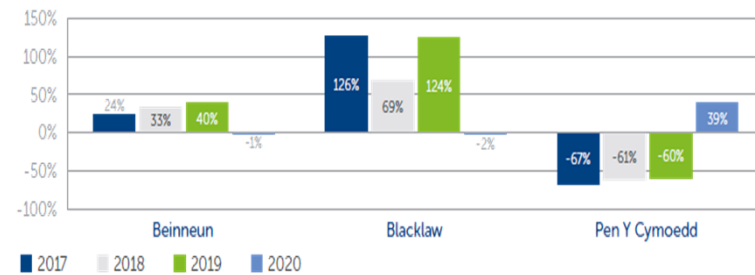


# What are the current issues with TNUoS - Evidence based analysis

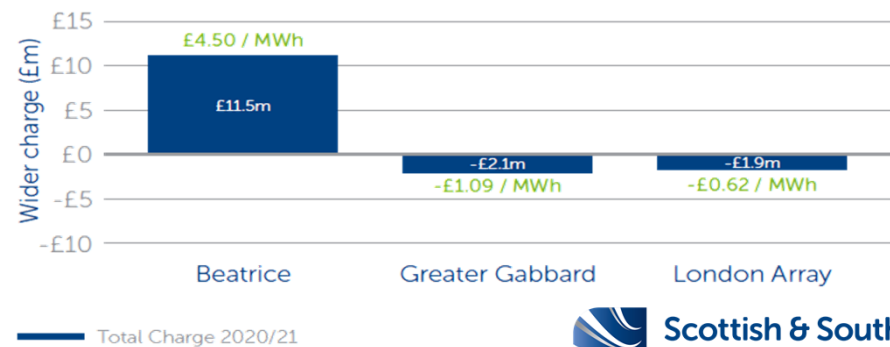
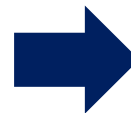
Charges are volatile



Charges are unpredictable

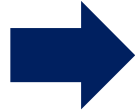


Disproportionately high costs



# Further Issues

Volatile TNUoS risks increasing consumer bills



Cashflow volatility & CfD bid mispricing alone



Estimated consumer cost up to **£14** per GB household by 2030

No apparent value in the locational 'signal' for generators.



Availability of energy resources (wind water sun)

Crown Estate & Crown Estate Scotland chose location of seabed.

TO decides point of connection.

Unpredictable TNUoS is in contrast to stable TO revenues

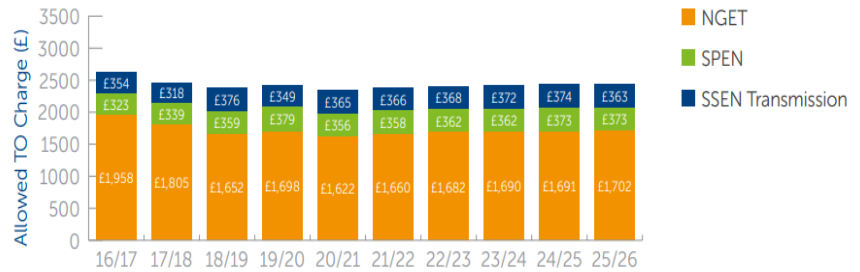


Figure 4 The maximum allowed TO charges (in 2019/20 prices)

## Our view on what is required for reform

- ∅ We welcomed Ofgems CfE. Collaboration with industry is critical.
- ∅ To ensure that consumers pay least cost whilst delivering net zero clear strategic direction for national policy will be critical.
- ∅ Any review / reform must be practically implementable.
- ∅ **Broad reform must happen now, time is running out.**

## Our view is that a principle led review is critical



Thank you for listening

