

Design Variation Discount

TCMF

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Story so far...

- ◆ During 2006 a charging proposal was developed with industry collaboration via pre-consultation, consultation and discussion at charging forums
- ◆ Amendment was vetoed Feb 07
 - ◆ National Grid to propose an alternative
 - ◆ Authority agreed with principle of reduced TNUoS tariff for a lower access standard
 - ◆ Significant issues remained with cost reflectivity

Further ideas

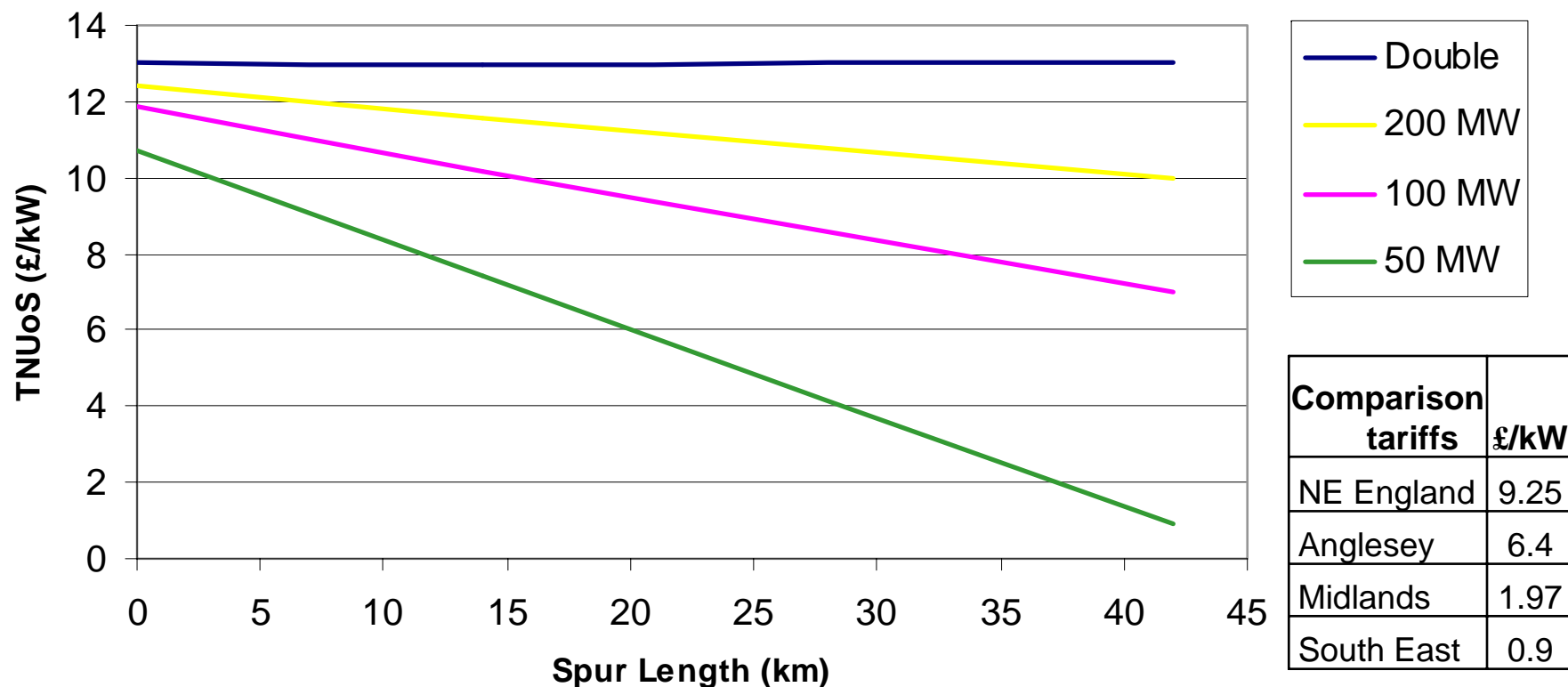
- ◆ Project specific deep TNUoS discount
- ◆ Adjustment of sub transmission charging boundary
- ◆ Sharpening of incremental cost of capacity
 - ◆ Subdivision of expansion factors

Project specific deep TNUsoS discount

Project specific & 100% cost reflective discount

- ◆ The full actual project specific capital and operational savings are annuitised as a discount against TNUoS
- ◆ Accepts that TNUoS charges achieve balance between facilitation of competition and cost reflectivity, whereas a discount is actual and immediate avoidance of asset investment cost
- ◆ Enables the site/project specific “right decision” to be made
- ◆ Undermines the TNUoS charge and generates a perverse incentive

Effect of discount upon TNUoS tariff



Midlands connection

- ◆ A 500MW generator connects via a 60km spur circuit
- ◆ Assume:
 - ◆ 90% OHL
 - ◆ Cost of single circuit 75% of double
 - ◆ New generation zone created

	Infrastructure investment	TNUoS tariff (£/kW)
Double Circuit	£300m	6.39
Single Circuit	£225m	-5.76

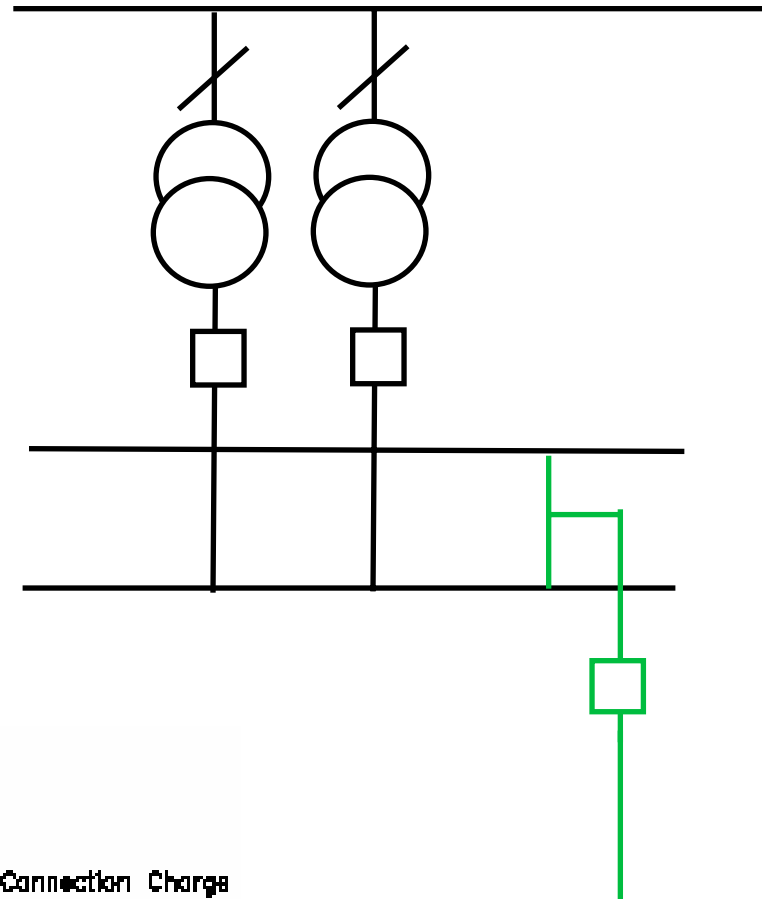
Adjustment of sub transmission charging boundary

Sub 132kV connection boundary

- ◆ Often sub-transmission voltage potentially sharable assets are being charged as infrastructure
- ◆ Discrepancy between single and double circuit connections
- ◆ Establishment of the connection charging boundary so that all sub-transmission voltage assets (sole and shared) are charged as connection assets
- ◆ Allows generators to make efficient decision based on cost reflective discount
- ◆ Requires sharing rules to be determined for shared sites
 - ◆ 50:50?
 - ◆ Apportioned by TEC?
- ◆ Step changes/legacy issues

Existing typical charging & connection boundary for designs within queue

Transmission Voltage

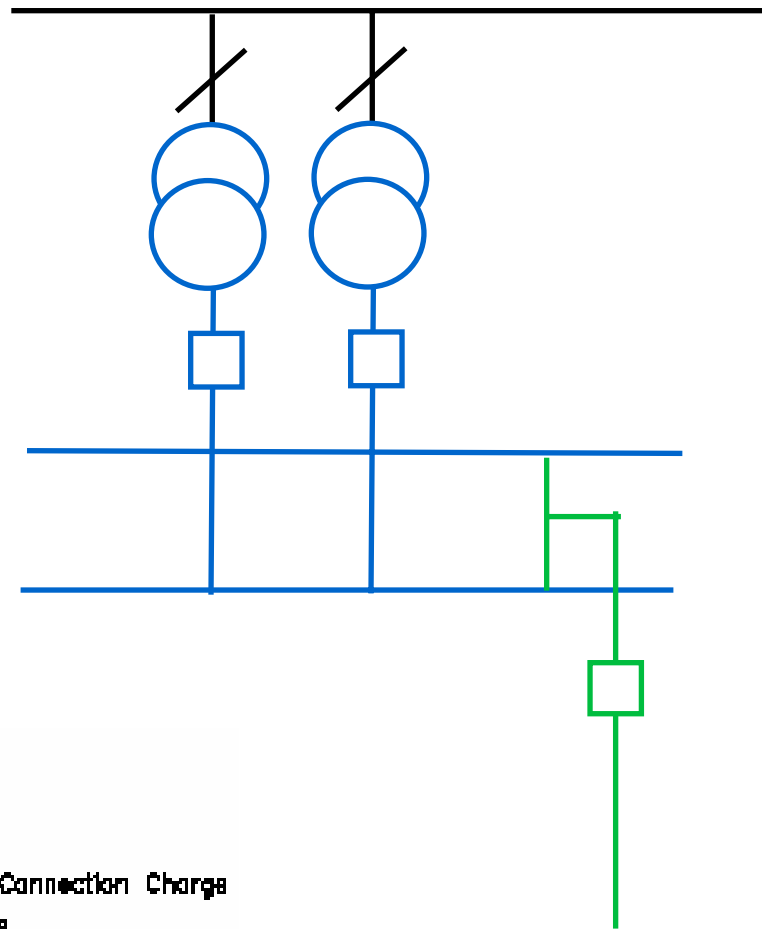


KEY:

- User Assets
- Other User Assets
- Assets wholly Included In Connection Charge
- National Grid Infrastructure

Revised boundary

Transmission Voltage



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Sharpening of incremental cost of capacity

Sharpening of incremental cost of capital

- ◆ An adjustment of charge magnitude will also have a proportional effect upon discount
- ◆ Several potential factors for previous low discount
 - ◆ 132kV expansion factor based upon maximum capacity OHL
 - ◆ Weighting factor for 132kV to 400kV rebuild applied to all OHL in TO area
 - ◆ Subdivision of 132kV OHL expansion factors to differentiate those that would not be feasibly uprated to 400kV?
 - ◆ Increases cost reflectivity. Difficult to make transparent?