

GB Transmission Charging

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Authority Decision Letter

- Connection Charging Methodology Approved
- Had it been possible to approve the Balancing Service Use of System Charging Methodology then it would have been suitable for approval
- Whilst Option A and B had significant merits, in the Authority's view both had areas of weakness and were not approved
 - Option A proposal had a significant weakness concerning cost-reflectivity which did not appear to be offset by compensating benefits in terms of facilitating competition
 - Option B proposal to increase the share of total revenue recovered from suppliers was disproportionate to the 'problem' of negative demand tariffs

National Grid views

- National Grid believe that Option B should be used as the basis of the GB Charging Methodology as it better meets the relevant objectives.
- The following four areas were identified by the Authority for consideration in the development of Option B:
 - Generation/Demand revenue split (Negative demand tariffs)
 - Calculating expansion constants
 - Calculating lower voltage expansion factors
 - Treatment of circuits with spare capacity

Negative Demand Tariffs - Issue

- By increasing the share of total revenue recovered from suppliers and large users to 90% is a disproportionate measure relative to the problem of negative demand charges
- National Grid is proposing to revert to the current England and Wales G:D split of 27:73
- This creates the possibility of negative demand tariffs
- National Grid believes that negative demand tariffs can be undesirable from a system security perspective depending on the charging base and magnitude
- Negative demand charges would require embedded generation to pay a charge

Negative Demand Tariffs - Proposal

- Options considered included:
 - Scaling tariff differentials
 - Merging Scottish Hydro and Scottish Power demand zones
 - Wider charging base
- The first two options above are seen as discriminatory
- System implications for adopting a wider charging base
- The National Grid Preferred Option is to establish a minimum demand tariff for a zone of £0.00/kW (0p/kWh for NHH) with excess revenue divided non-locationally to reduce tariff in all other demand zones
 - Indicative figures shows this uniform reduction in demand tariffs is between 1p and 2p/kW
- National Grid believe this option is proportional

Review of Expansion Constant Calculation

- Further work shows that cost of new build is a reasonable estimate of the average cost of providing incremental capacity
 - New build costs were compared to conductor re-profiling; re-conductoring and voltage uprating
- Further analysis using the TIRG forecast by comparing the tariff differential across the zones where the reinforcement takes place with the reinforcement unit costs
- The comparison of unit costs derived from the specific reinforcements and the TNUoS tariff confirms that the TNUoS tariffs are not systematically overstating locational signals

Review of lower voltage expansion factors

- Reviewing the underlying data for Option B led to the proposal of regional expansion factors due to the higher percentage of circuits planned for upgrading in the Scottish Hydro area
- Reviewing the 275kV network identified a majority of assets as capable of operating at a higher voltage (80% for GB)
- Proposal to combine the results above into new TO specific expansion factors
 - Note: existing DCLF model cannot yet handle TO specific as well as voltage specific expansion factors – circuit lengths are adjusted prior including the data in the model

Review of Spare Capacity

- Additional detailed analysis including worked examples has been provided to explain why National Grid does not believe it is appropriate to implement the existing England and Wales treatment of Spare Capacity in a GB methodology
- Analysis showed that users pay relative to the power flow they induce on to the system
- Concluded that the effect of spare capacity is recognised implicitly within the model and recovered via the residual element of the tariff
- To additionally scale for spare capacity would be less cost reflective
- No change proposed

Summary of Revised Proposals

- Single option
- 73% of TNUoS revenue to be recovered from demand with 27% from generation
- Negative demand tariffs should be constrained to a de-minimus £0.00/kW with a consequential non-locational reduction in other demand tariffs
- TO specific expansion factors should be employed to better reflect the likely development options below 400kV
- TO specific expansion factors to include an allowance for lower voltage circuits constructed for operation at 400kV

Illustrative Tariffs

- Updated with Interim Seven Year Statement data
- Increase in contracted Scottish generation
- New transmission connected generation triggering new generation zones
- Latest TNUoS revenue recovery forecast
- Indicative tariffs with Conclusions Report

Next Steps

- 21 January - Consultation Closes
- 28 January – National Grid submit revised proposal to the Authority
 - including updated indicative tariffs
- Early Feb - Draft UoS Methodology Statement for comment
- 4 February – Ofgem Publish Impact Assessment
- 18 February – Ofgem consultation closes
- End of February – Authority decision
- End of February - Publication of Final Tariffs
- 1 April - BETTA Go-Live – commence GB Charging

GB Charging Issues

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