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Electricity transmission congestion – On-going work

For discussion

Introduction

- The level of congestion on the electricity transmission network can broadly be separated into:
  - Medium-term (1-4 years) drivers
    - Outage planning
    - Commissioning of planned reinforcements
  - Longer-term (3 years +) drivers
    - Appropriate level of transmission capacity
- In each timeframe, the modelling and forecasting of constraints represents a significant challenge
- Recent changes to the transmission access arrangements are also likely to impact on the level congestion in each timeframe
  - Level of generation connected behind exporting boundaries is uncertain
- The most effective solution to congestion is the timely completion of planned reinforcements

Outage planning
September 2009 Consultation 1

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- SO/TO interface issues - Scotland
  - Extending the current duration of the Final Outage Plan (through changes to the STC) e.g. from 1 to 2 years
  - Allowing outage change costs to be remunerated over an extended window (through changes to NGET licence)
  - Changing the outage change allowance incentive
  - SO driven capex
    - Introduction of an SO capex “pot”
- SO/TO interface issues – England & Wales
  - Equalisation of incentives for TO opex and controllable SO (opex) costs

Outage planning
September 2009 Consultation 2

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- Aligning TO and SO incentives to minimise constraint costs
  - Incentivising specific outage change activity
  - Incentivising the availability of transmission capacity
  - Incentivising minimisation of network constraints
- Following the closure of consultation, National Grid, the Scottish TOs and Ofgem are now progressing developments to:
  - STC outage planning process
  - STC Investment planning process

Appropriate level of transmission capacity SQSS with significant volumes of intermittent generation

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- Recent consultation [GSR009] recognises:
  - Investment for wind generation should be based on cost-benefit analysis
  - Uncertainty of costs introduces significant practicality issues
- Options
  - Full cost benefit
  - Cost benefit with idealised transmission investment costs
  - Pseudo cost benefit
    - Deterministic assessment periodically benchmarked to cost benefit
- Consultation stated preference for pseudo cost benefit
- Consultation now closed
  - Anticipate conclusions letter to Ofgem mid-September, 2010

Improvements to constraint forecasting

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- On 5 July, Ofgem published a report setting out its preliminary conclusions following phase 1 of the electricity SO incentives review
- NG supports the aims of the electricity SO incentives review and is in broad agreement with the phase 1 preliminary conclusions
- Model development – Constraints
  - We are currently looking to procure a model from a third party
    - Timeframe may be significant
    - Contingency approach for April 2011 involves internal development of an interim solution