

Condition 2 – Incremental Cost of Capacity

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Condition 2

- ◆ Identify, review and assess further the technical basis for a range of alternative methods of estimating and reflecting in locational charges the incremental costs of capacity (inc. the method adopted in the approved methodology),
- ◆ Consult with interested parties to identify the range of alternative methods to form part of this technical assessment,

The condition (2)

- ◆ Bring forward modifications for implementation no later than April 2007 if the review identifies potential improvements,
- ◆ Publish a progress report in April 2006, and
- ◆ Publish a report setting out the conclusions of the review in the event that National Grid concludes there are no further improvements.

Process to date

- ◆ Process proposed at April 05 TCMF
- ◆ Workshop held May 05
 - ◆ to identify alternative methods for estimating the incremental cost of capacity
- ◆ Workshop held September 05
 - ◆ to provide more transparency in the calculation of incremental cost of capacity
- ◆ National Grid considering the issues raised in the first workshop

Methods covered (1) -Issues raised

- ◆ Two issues falling outside of Condition 2:
 - ◆ Commoditisation
 - ◆ Variable locational signals for demand and generation
- ◆ Whilst these areas are worthy of further investigation, they are not methods for calculating the cost of capacity, but how those cost are applied.
- ◆ Propose to add these to CISG work list

Methods covered (2) - Issues raised

- ◆ Forward looking vs. historic costs / forecasting
- ◆ Transparency
- ◆ Cost reflectivity of expansion constant
- ◆ Thermal ratings
- ◆ Spare capacity
- ◆ Disaggregation of calculation and application into circuit specific, zonal or nodal basis for EC, EF & SF

Forward looking Vs Historic costs / forecasting

- ◆ A ‘basket of technologies’ could be used instead of just OHLs
 - ◆ base ICoC on x capacity provided for y cost over previous n years
 - ◆ GB data
- ◆ A “Transcost” type approach could be employed in the model

Transparency

- ◆ Based on expected costs
 - ◆ calculation uses weighting of different overhead line types
 - ◆ detailed commercial data
- ◆ Reviewing options internally
- ◆ Assessing loss of cost reflectiveness if calculated on aggregated data that could be published.
- ◆ Implications for all transmission licensees

Cost reflectivity of expansion constant

- ◆ Reviewing:
 - ◆ cost of capital- 6.25% v's 6.25/8.7/8.9
 - ◆ asset life - 50 year v's 40 year
 - ◆ Interest During Construction
 - ◆ Engineering costs
 - ◆ Expansion Factor - LV upgrades
- ◆ QBs, reactive compensation (also modelling)

Thermal Ratings

- ◆ Methodology uses the winter MVA rating as equivalent MW– are there any alternatives?
 - ◆ Use MW for cost of capacity
 - ◆ Calculate MVAkms

Spare capacity

- ◆ Review treatment of spare capacity
- ◆ Nature of transmission investment
- ◆ Calculation more subjective than deterministic
- ◆ Take account of Authority decision

Disaggregation

- ◆ Consider the options for using specific data
- ◆ bespoke / deep charging
- ◆ Increases complexity and reduces transparency, predictability and stability
- ◆ Need to consider for other other development where the costs are significantly larger than average and security level different e.g.
 - ◆ offshore
 - ◆ island connections
 - ◆ extreme perimeter connection

Next steps

- ◆ Further discussion on transparency
 - ◆ can we use aggregated data
- ◆ Need discussion with TOs
- ◆ Carry out additional analysis on impact
- ◆ Present to CISG
- ◆ Seek to produce a draft report in early spring
- ◆ Issue interim report in April 06
- ◆ Take forward methodology changes in Summer 2006 for implementation April 2007