

Charging arrangements for offshore transmission GB ECM-08

Further Consultation Document

Background

- ◆ Pre-consultation document published July 2007
- ◆ Consultation document published December 2007
- ◆ Ofgem wrote to National Grid on 30 May 2008 requesting that National Grid undertake a supplementary consultative process
- ◆ In addition to issues that have already been consulted on, the “embedded transmission” issue will need to be covered (following the conclusion of the Offshore Transmission Embedded Transmission Working Group)

Previous consultations

- ◆ Three main issues identified:
 - ◆ Offshore connection / use of system boundary
 - ◆ Offshore expansion factors
 - ◆ HVDC
- ◆ Nine written responses to pre-consultation and Ten written responses to consultation
 - ◆ All can be viewed on the National Grid charging website

Previous consultations

Offshore connection / use of system boundary

- ◆ Three options considered:
 1. As onshore – offshore substation LV busbar
 2. Offshore substation HV busbar
 3. Onshore connection point
- ◆ NG proposed option 1
 - ◆ Consistent with onshore
 - ◆ Offshore substations and cables are potentially sharable
- ◆ Seven respondents supported option 1
 - ◆ Consistent with onshore (particularly non-sharable >2km circuit)
 - ◆ Protect users from OFTO overprovision
- ◆ Other respondents noted disadvantages
 - ◆ Not reasonable for onshore users to incur additional charges due to offshore
 - ◆ Costs offshore different - socialisation = inappropriate subsidy
 - ◆ Offshore assets unlikely to be shared
 - ◆ Two respondents suggested National Grid revisit option 3

Previous consultations

Offshore circuit expansion factors

- ◆ Two options considered:
 1. Specific approach
 - a) Entire revenue
 - b) “Locational” revenue [incl reactive compensation]
 2. Generic approach
- ◆ NG proposed 1b
 - ◆ Consistent with onshore
 - ◆ Locational/non-locational revenue split from tender process and/or STC
 - ◆ Potential to move to option 2 as experience is gained
- ◆ Seven respondents supported option 1 (although one would prefer connection asset treatment)
 - ◆ Concern about variation between costs and charges with generic
 - ◆ Insufficient data for generic
 - ◆ Three respondents supported potential move to generic in future

Previous consultations

Offshore circuit expansion factors

- ◆ Three did not support option 1
 - ◆ One supported a generic approach
 - ◆ Greater stability associated with averaging (which takes place onshore) outweighs cost reflectivity concerns
 - ◆ Two did not support concept of offshore cables being treated as infrastructure
- ◆ Five respondents expressed opinions on treatment of reactive compensation
 - ◆ One was supportive
 - ◆ Three did not support
 - ◆ Discriminatory treatment
 - ◆ Reactive compensation would bring other system benefits
 - ◆ One respondent did not understand reason for this approach

Previous consultations

HVDC

- ◆ Two options considered:
 1. Include converter station cost in specific expansion factor
 2. Assumptions to allow generic HVDC expansion factor to be calculated
- ◆ National Grid proposed option 1
 - ◆ Process as for AC, but OFTO would identify converter station costs as “locational”
 - ◆ Need to be treated as locational because they are interactive with cable cost
 - ◆ Generic approach causes cross subsidy between connections of different lengths
- ◆ Four respondents supported this approach (although one would prefer connection asset treatment)
- ◆ Two respondents gave qualified support
 - ◆ Other system benefits (fault level, reactive capability) associated with HVDC
 - ◆ Unnecessary to conclude on this issue now

Previous consultations

HVDC

- ◆ Two respondents did not support this approach and a further two did not express a view
 - ◆ If AC platforms are non-locational, then why are converter stations different?
 - ◆ Charging may cause users to choose inefficient AC over more efficient HVDC
 - ◆ Comparison with AC transformers

Ofgem letter

30 May 2008

- ◆ Two main concerns:
 - ◆ Assumption that information on locational / non-locational (residual) split would be collected as part of tender process
 - ◆ Basis (definition of and justification for) split between locational and residual charging elements
- ◆ Following questions to be addressed:
 - ◆ Is socialisation of offshore platform costs appropriate
 - ◆ How would split be accommodated without distortion to tender process
 - ◆ Financial significance of socialising offshore platform costs
 - ◆ Financial effect on onshore charging base and tariffs
 - ◆ Any adverse impact on ability of users to realise benefits of sharing offshore assets?
 - ◆ Arrangements to determine infrastructure / connection split
 - ◆ Interaction with local charging
 - ◆ Methodology for “partial redundancy”
- ◆ Charging methodology modification proposal to Ofgem in Dec 2008, and no later than 1 January 2009

Proposed modification

Offshore connection / Use of system boundary

- ◆ NG propose offshore substation LV busbar (option 1)
 - ◆ Offshore substations and cables could potentially be shared
 - ◆ Connection asset treatment would mean a sharing methodology is required, exposing users to the actions of other generators and OFTO decisions for wider reasons
 - ◆ Consistent with local charging consultation, deal with issues of higher substation costs by reflecting through TNUoS
 - ◆ Target costs without exposing users to actions of others

Proposed modification

Offshore exp & security factors & sstn tariffs

- ◆ NG propose specific expansion factors to cover locational revenue (option 1b)
 - ◆ Include costs of reactive compensation equipment
 - ◆ Consistent with local charging consultation, calculate specific locational security factors
 - ◆ Single cables – as consultation
 - ◆ Multiple cables which provide partial redundancy – methodology to reflect total MWkm (capped at GB average LSF – currently 1.8)
 - ◆ Include substation tariffs
 - ◆ Tariff will reflect difference between offshore platform on onshore civil costs
 - ◆ Although potentially sharable, offshore substation assets only used by offshore generators – appropriate to target costs (rather than socialise)
 - ◆ Reflecting costs through TNUoS rather than connection assets protects users from actions of others
 - ◆ Targeting substation and cable costs to users reduces any incentive for misallocation of costs by OFTO

Proposed modification HVDC

- ◆ No change to proposal contained in December 2007 consultation

Embedded transmission DNO charges

- ◆ How should NG (as GBSO) reflect the DNO charges levied upon it in its charges?
- ◆ Options
 1. Charge the OFTO, and treat the revenue as an excluded service
 2. Charge offshore generators, and treat revenue as an excluded service
 3. Charge offshore generators, and include in the RPI-X revenue restriction
 4. Include in the RPI-X revenue restriction, and socialise through the residual charge
- ◆ Current preference for option 1
 - ◆ Simple
 - ◆ Generators charged cost reflectively

Embedded Transmission

Other issues

- ◆ Minor addition to transport model to handle “islanded” sections of network
- ◆ 132kV offshore network will be treated as transmission
 - ◆ Generators will become liable to pay positive BSUoS and generator TNUoS
 - ◆ Consistent with onshore