

GB ECM-08 Consultation

Charging Arrangements for Offshore Transmission

Charging Issues Standing Group

20th November 2007

Offshore Charging Consultation

Pre-consultation

- ◆ Pre-consultation issued in July 2007
 - ◆ 9 responses
- ◆ Three main issues highlighted
 - ◆ *Offshore Connection / Use of System Boundary*
 - ◆ Offshore substation LV busbar; or
 - ◆ Offshore substation HV busbar; or
 - ◆ Onshore Connection point
 - ◆ *Offshore Circuit Expansion Factors*
 - ◆ Generic or Specific
 - ◆ *HVDC*
 - ◆ Inclusion of convertor station costs in either a generic or specific expansion factor

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Pre-consultation Responses

	Connection Boundary	Expansion Factor	HVDC Cable Expansion Factor	HVDC Convertors
Airtricity	1, definitely not 3	Specific initially, generic eventually	Specific	Hints at specific EF
British Energy	3	Cable would be connection asset	Cable would be connection asset	Connection asset
BWEA	1, definitely not 3	Specific initially, generic eventually	Specific	Hints at specific EF
Centrica	3	If not connection, prefers specific	If not connection, prefers specific	
EDF Energy	Prefers 3 then 2	Generic	Specific	Specific EF
E.ON	1	Generic	Generic	Residual
Lewis Windpower	1	Generic indicative, specific actual	Generic indicative, specific actual	Residual
RWE	1	Specific	Specific	
SSE	1	Generic		

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Offshore Connection / Use of System Boundary

- ◆ Three options:
 - ◆ Offshore substation LV busbar
 - ◆ Consistent with Scotland and Plugs methodology; would facilitate multiple LV connections
 - ◆ Offshore substation HV busbar
 - ◆ Consistent with England & Wales ownership boundary
 - ◆ Onshore Connection point
 - ◆ Most cost-reflective, but counter to government policy and plugs
- ◆ **National Grid proposal**
 - ◆ **Offshore substation LV busbar**

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Expansion Factors

- ◆ Options:
 - ◆ Generic
 - ◆ Simple, would give certainty and predictability; but no historic data, not cost reflective (could be significant cost differences)
 - ◆ Specific – 2 sub-options:
 - ◆ Recover entire OFTO revenue as locational; or
 - ◆ Split between locational (cable) and non-locational (substation)
- ◆ Specific with split would be more cost-reflective than generic and consistent with onshore, but would require new process to determine split
- ◆ **National Grid proposal**
 - ◆ **Specific, with locational / non-locational split**
 - ◆ **Long term aspiration to move to generic if appropriate**

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HVDC

- ◆ Options for HVDC Expansion Factors:
 - ◆ Generic vs specific
 - ◆ Inclusive or exclusive of cost of convertor station
- ◆ No support for generic, inclusive
- ◆ No historic data; few likely to be built
- ◆ Convertor stations - costs disproportionate to residual; intrinsically linked to a specific line
- ◆ **National Grid proposal**
 - ◆ **Specific, inclusive of convertor station costs**

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Other Issues

- ◆ Generation Charging Zones

- ◆ Current criteria of £2/kW – each offshore zone likely to contain only one node
- ◆ £2/kW is fixed – intend to separately consult on this
- ◆ Still unlikely to result in multiple node zones offshore

- ◆ Locational Security Factor

- ◆ Separate consultation on SQSS design variations
- ◆ Offshore SQSS subgroup recommended zero redundancy offshore
 - ◆ Design variation consultation therefore designed to address this

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Embedded Transmission (1)

- ◆ Not addressed in pre-consultation
- ◆ DNO will levy charges on GBSO (consistent with those for D connected large power stations)
- ◆ Solution consistent with Ofgem statements to date:
 - ◆ Charge OFTO as an excluded service (through a new STC charging process)
 - ◆ Charging only one party (pass charge straight through)
 - ◆ Keeps out of RPI-X – not a transmission service
 - ◆ Straightforward treatment of capital contributions
 - ◆ Allows bespoke charging timetable, to match DNOs'
 - ◆ Ultimately charge falls cost reflectively on relevant generators
 - ◆ BUT results in very convoluted cashflows

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Embedded Transmission (2)

◆ Other options:

- ◆ Charge specific generators as an excluded service
 - ◆ Much simpler cashflows; still an excluded service; cost reflective
 - ◆ Counter to Ofgem's views; may need to split charge between generators
- ◆ Charge specific generators through TNUoS
 - ◆ Much simpler cashflows; cost reflective; no new charge required
 - ◆ Counter to Ofgem's views; complexity and implications of RPI-X (e.g. capital contributions)
- ◆ Socialise through residual
 - ◆ Much simpler cashflows; no new charge required
 - ◆ Counter to Ofgem's views; zero cost reflectivity; implications of RPI-X

◆ National Grid proposal

- ◆ Charge OFTO as an excluded service
- ◆ Would require new STC charging process, rather than change to existing methodology

nationalgrid

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Embedded Transmission (3)

- ◆ Charging “islanded” transmission
 - ◆ Will essentially ignore disconnect between T networks
- ◆ Embedded “benefits”
 - ◆ Offshore generators <100MW connected at 132kV to a DNO currently receive BSUoS and Demand TNUoS
 - ◆ Once offshore transmission regime goes live, will be liable to pay BSUoS and Generation TNUoS
 - ◆ Although will qualify for small generators’ discount (assuming scheme extended and no other solution)
 - ◆ This is inherent in classifying 132kV as transmission

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Summary

- ◆ Intend to issue offshore charging consultation in late November / early December, proposing:
 - ◆ Offshore connection charging boundary at the offshore substation LV busbar;
 - ◆ Specific expansion factors for locational elements of offshore connections, and recovery of non-locational through the residual;
 - ◆ Specific expansion factors for HVDC connections, including convertor station costs; and
 - ◆ Recovery of charges levied on the GBSO by DNOs for embedded transmission from OFTOs as an excluded service.