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Regulation of offshore electricity transmission

External Communication Session #1

24 April 2007

Agenda

- Introduction (Robert Hull)
- Govt Decision (Duarte Figueira)
- Q & A
- Summary of Ofgem scoping document (Giles Stevens)
- Presentation of work streams
  - Adoption (Robert Hull & John Overton)
  - Connection application process (Robert Hull)
  - Technical rules (Bridget Morgan)
  - Access, charging & compensation (Anthony Mungall)
- Q & A
- Coffee Break
- Further work streams
  - Tender design (Duncan Innes)
  - Offshore price control design (Colin Green)
- Conclusions / next steps (Robert Hull)

Introduction

- 29 March - Government decision document published, setting out that the licensing of offshore electricity transmission will be a competitive ('non exclusive') activity.
- 30 March - Ofgem's second scoping document published setting out our initial thoughts on policy proposals.
- This regime is primarily required:
  - to provide a funding and regulatory oversight mechanism for the construction and operation of offshore transmission connections,
  - to provide an appropriate balance of risk and certainty for all parties,
  - ensure regulation remains as light touch as possible.

Purpose of today

- Provide additional clarity on:
  - the general framework proposed
  - the scope of work to be undertaken
  - the key stages and dates in the implementation process
- Encourage discussion
- Answer preliminary queries
- Enable stakeholders to submit a fully informed response.
- Two further external communication sessions are planned.

Government decision – Duarte Figueira


dti

Offshore Transmission Regulatory Regime

DTI / Ofgem communications work shop
24 April 2007

Background

- Regulatory framework required to enable offshore generation to connect to onshore network
- Certainty about how connection costs will be funded and the regulation that controls them is a key requirement for developers to proceed
- Powers taken in Energy Act 2004 to introduce offshore transmission regulation
- Aim to introduce regime in October 2008

Progress to date

- Decision to introduce licensed price control framework offshore : March 2006
- Announcement that NGET's role as GBSO will be extended offshore : August 2006
- Decision on non-exclusive licensing model for offshore TOs : March 2007
- Decision on GB SQSS for offshore purposes : April 2007
- Class exemption for low voltage lines (offshore distribution) came into force : April 6 2007

TO Licensing Model

- How to licence activity of owning, building and maintaining offshore grid

- November 2006 consultation set out two options:

  Option 1 : A non-exclusive approach

  Option 2 : An exclusive approach

- Competition between multiple licensees or competition for monopoly licensed areas

Considerations

- Need to balance:

  Short term : allowing projects to proceed whilst new regime established

  Long term : ensuring economic and efficient connection, and co-ordinated development of offshore network
- Responses broadly split between two options
- Concerns broadly:
  - Complexity of the process
  - Ensuring timely connections
  - Role of the GBSO in the assessment of bids
  - Quantification of the costs and benefits of competition
  - Co-ordination of network connections in the short and long term
  - Adoption issues

Government Decision

Decision to implement non-exclusive approach – we believe it:

- Delivers cheaper and more timely offshore grid connections
- Encourages innovation through competition and enable new entrants to compete in the market
- Is more focussed on generators' requirements than the onshore system or the exclusive approach
- Allows generators to bid to own their own transmission assets, making the adoption issue easier to solve and creating more certainty for generators.

Government Decision

Decision against the exclusive approach – we believe:

- The requirement to connect an unquantifiable number of projects could limit number of new entrants and therefore scope for innovation
- It could also create the risk that no TO bids for an area or that they seek higher costs to offset the risk
- Has less focus on needs of the generator, which could result in later delivery dates for connections
- Generators would have to bid for an entire area if they wanted to be the TO for their connection, making adoption issue difficult to solve

Other conclusions

- Tender process will be independent of the GBSO
- Generators will be able – subject to ring fencing – to apply for TO licences
- Windowing of tenders may be appropriate

Next Steps

- Design tender process and draft licence & code modifications (as set out in Ofgem's Scoping Document of 30 March)
- Policy Statement in July 2007
- 2 consultations on draft modifications in July 2007, January 2008
- 12 weeks consultation on full regime in June 2008
- "Go-Active" in October 2008
- "Go-Live" TBC

Q & A

Summary of Ofgem scoping document - Giles Stevens

Summary of Ofgem's scoping document (1)

- Follows on from first scoping document in April '06
- Focuses on the remaining two areas:
  - Regime design
  - Implementation changes
- 'Initial thoughts'
  - Provides at a high level one possible 'straw man' of how regime could look.

Summary of Ofgem's scoping document (2)

- Outlines key work streams for getting regime in place, setting out:
  - Issue
  - Key policy questions
  - Proposed approach for taking forward
- Key issues
  - Connection application
  - Competitive tender process
  - Design of regulatory regime
  - Adoption
  - Charging, access and compensation
  - Codes
  - Implementation issues

Adoption – Robert Hull & John Overton

What is the issue?

- Any assets constructed, or under construction, referred to as “transitional offshore transmission assets” before the new regime is in place will have to be “adopted” by licensed TO’s into the new regime.
- The key issue is what assets should be classified as transitional (‘the legal issue’) and given regulatory assurance over investment costs (‘the cost issue’) ahead of the new regime.

The cost issue - key policy questions

- What preconditions are required?
- What are the appropriate criteria for selecting adopters?
- How should the value of transitional assets be determined?
- What should be the treatment of and non-compliant transitional projects against technical rules?
- What should be the treatment of un-adopted offshore transmission assets?

The cost issue - pre-conditions

The following pre-conditions are proposed before the costs are eligible for adoption:

- projects will be constructed or will have secured full unconditional financial close prior to the date after which enduring arrangements will apply; *and*
- developer holds a generation licence; *and*
- relevant consents and onshore connection offers are in place; *and*
- user commitment is given from the generator; *and*
- there is formal financial commitment; *and*
- adoptees reveal full cost information and supporting documentation to enable an assessment of their bid.

The cost issue - proposed approach

Determining an efficient cost for the assets:

- A minimum level of transmission asset cost to be set at 75% of our *ex-ante* estimated cost assessment
- Costs above minimum will be subject to *ex-post* efficiency review: only those deemed economic, efficient and fit for purpose included
- Bidding process for selecting adopter of assets i.e. on same principle as for constructing new assets
- The winning bidder will reimburse the developer of the adopted assets at our final view of the efficient asset costs
- Technical compliance will be done on a case by case basis

Adoption

The ‘legal issue’

- Risk to developers that they will have commissioned transmission assets before a TO licence is in place
- Aim is to provide a sufficient period before the new regime goes live to enable the assets affected to be adopted by a licensed TO
- But need to ensure the commencement of the new regime is not delayed indefinitely
- Until then, connections at 132kV are distribution, with regulatory arrangements now in place
- DTI is holding bilateral discussions with offshore developers before determining an appropriate date for commencement of the new regime (i.e. s180)

Connection application process – Robert Hull

What is the issue?

- Onshore:
  - the SO has an obligation to make offers to parties that request a connection and use of system agreement.
  - CUSC requires offers to be provided within 3 months.
- Offshore requirements:
  - need for a new TO to be selected and appointed.
  - characteristics of offshore environment may extend offer timescales
- **How can this process be developed to acknowledge the constraints faced by the GBSO and offshore generators**?

Key policy questions

- Is the existing connection application process fit for purpose and how does it need to evolve?
- Does it need to change to accommodate the tender process for an Offshore Transmission Owner (OFTO), and what are these changes?
- How can changes to this process be clearly expressed through the appropriate industry documents and codes?

Proposed approach (1)

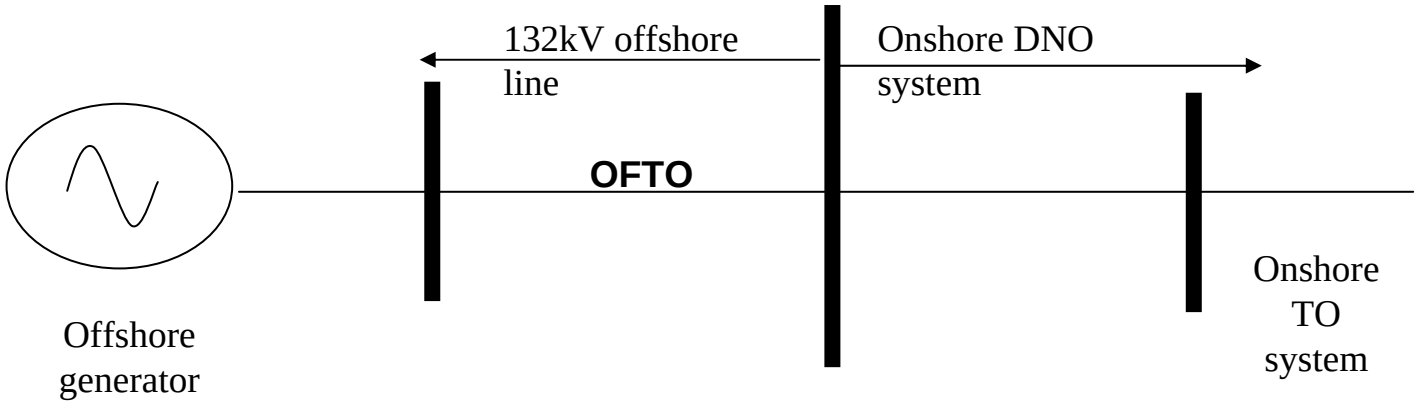
- Adapting existing practice
  - Arrangements that exist today should form the basis of any proposed approach offshore
  - Changes should, as far as practicable, be minimised.
  - However, aspects of the proposed offshore regime may require amendments to be made to the connection application process
- Staged approach adopted for uncertain onshore connections e.g. Scottish Islands, may provide a model which could be adapted to apply offshore

Proposed approach (2)

- Formal transmission connection process initiated by submission of a 'competent' application by an offshore generator to GBSO. (OFTO Tender process is triggered at the same time)
- An annual co-ordination window for applications is proposed
- GBSO identifies a "host" Transmission Owner (TO) that is responsible for producing indicative onshore design and cost assessments
- GBSO will co-ordinate with the host TO for onshore design and will develop a high level indicative offshore design
- This information will form the basis of the **initial indicative connection offer** to the applicant within the 3 month timescale
- Further detailed work may either be carried out by the SO/Host TO, and the preferred OFTO once appointed
- **Final connection offer** sent to generator once designs and costs are fixed i.e. once OFTO tender process is completed.

Connection via distribution networks

- Offshore regime will introduce a new type of interface (Y)



Interface Y

Proposed approach:

- Arrangements are needed to manage the new interface between
  - GBSO and DNO
  - OFTO and DNO (e.g. site access and safety arrangements)
- Arrangements need to cover initial connection application and throughout the lifetime of the connection
- Also a need for arrangements to manage interface between GBSO and OFTO in respect of the distribution system connection point.

Key policy questions

- Can existing Grid and/or Distribution Code arrangements be developed?
- How will connection via a distribution network impact on GBSO's process for offering terms for an offshore transmission connection?
- How should DNO recover costs of providing of providing connection?

Proposed Approach

- GBSO to apply to the DNO for connection to and use of system
- A contract is entered into between GBSO/DNO if the offshore generator accepts the associated transmission connection agreement
- The OFTO enters into agreements with the DNO in respect of site specific issues
- The GBSO pays for any works it requires the DNO to undertake on its network, and these costs could be funded by the OFTO

Technical Rules – Bridget Morgan

What is the issue?

- Need to establish the technical rules that are required for
  - Offshore Grid Entry Point
  - Offshore transmission network
  - Onshore System (T or D) Entry Point

Key policy questions

- How should offshore security standard be incorporated in the GBSQSS?
- What technical requirements are required for:
  - Offshore Grid Entry Point (Grid Code, STC)
  - Onshore System (T or D) Entry Point (Grid Code, Distribution Code, STC)
- Is there a need to define other technical requirements for an offshore transmission system?

Proposed approach

- Develop drafting for the GBSQSS to reflect government decision on the appropriate basis for an offshore security standard.
- Review recommendation from the Grid Code sub group and develop drafting as required.
- Review Sections C and D of the STC to assess if these are appropriate for offshore

Access, charging & compensation – Anthony Mungall

What is the issue?

- Charging
  - How, as offshore GBSO designate, will NGET develop methodologies to calculate charges for connection to, and use of, the offshore transmission system?
- Access
  - An access product, similar to TEC, will need to be developed to reflect the expected usage of offshore connections.
- Compensation
  - Whether compensation will be applicable for a connection compliant with the lower minimum security standards expected for offshore transmission

Key policy questions

- Charging
  - Is it appropriate to apply the present onshore charging principles to the development of offshore charging methodologies?
- Access
  - Is it appropriate to apply the present onshore TEC capacity product to offshore transmission connections?
- Compensation
  - Is it appropriate to apply to the present onshore compensation principles to offshore transmission connections?

Proposed approach

- Charging
  - Current licence driven approach applied onshore is an appropriate basis for developing offshore charging arrangements.
  - Expect the current GB charging methodology to be used as the basis for development of offshore arrangements.
- Access
  - We foresee charges for offshore transmission connections being determined by similar types of TEC-based access products.
  - Access product may need to take account of the periodic cable outages, for example.
- Compensation
  - Compensation will not be applicable due to lower security standards offshore.
  - Cost reflectivity principles should apply offshore.
  - Do not support arrangements that are misaligned with the level of infrastructure associated with a radial transmission connection.

Q & A

Tender Design – Duncan Innes

Tender Process (1) - Content

- Aims of the process
- Stages of the process
- Management of the process
- Ensuring efficient tender costs
- Next steps

Tender Process (2) - aims

Aims:

- A competitive process that attracts investors to deliver economic, efficient and fit for purpose assets
- A clearly open and transparent process with clear rules and criteria governing its operation
- Good quality tender information that allows bidders to assess the key risks and rewards with confidence
- Sufficient time to assess the risks and rewards and finalise bids
- Firm and binding commitments from bidders to demonstrate seriousness and ability to deliver

... ensuring that bidders can be confident about what they are bidding for, and that generators and network users can be confident of efficient and economic delivery

Tender Process (3)
Stages – potential approach

(Process is triggered by formal Generator connection application)

- Stage 1 - Expression of Interest (based on high level specification)
- Stage 2 - Tender criteria issued (initial selection criteria)
- Stage 3 - Invitation to Negotiate (short list of bidders)
- Stage 4 - Bids assessed / revised (firm proposals and evidence of ability to deliver)
- Stage 5 – Preferred bidder appointed
- Stage 6 – Outstanding issue negotiations with preferred bidder
- Stage 7 - Authority Award based on price control approval
- Stage 8 – Final offer to Generator

Tender Process (4) - management

- Authority establishes the process
- Process starts as GBSO receives offshore connection application
- Bids requested (Annual Window)
- Bid reduction throughout process (re-bidding & refining certainty)
- Independent Assessment (criteria and weighting to be determined)
- Appeal process
- How much of the bids (initial & final) should be published?
- If there has not been an effective competition, we will consider whether the approach is fit for purpose

NB **Imperative the process is seen as open and fair**

Tender Process (5)
Efficient Tenders – potential approach

- Annual windows to co-ordinate connection and bidding rounds
- Refining the field of bidders on an iterative basis
- Provision of shared information to bidders, for example the undersea survey
- A clear process, few stages each with greater clarity
- Consider the scope for fuller project definition to be provided at the start
- Standardised documentation, to reduce external fees
- Reduce risks by having variant bids to cover uncertainties
- Consider a limited bid cost refund by winning bidder

Tender Process (6) – Next Steps

- Scoping Document Policy Questions:
  - Q1 On what basis should the tender be run and by whom?
  - Q2 What should be the key stages of the tender process, and how should the assessment and award be managed?
  - Q3 How can the costs of the tender process be minimised?
  - Q4 Who will be allowed to own offshore transmission assets?

- Workshop - Questions & Answers

- Dialogue and Meetings with Interested Parties
  - Please contact giles.stevens@ofgem.gov.uk / 020 7901 7082

Design of regulatory regime – Colin Green

Design of regulatory regime

- Key policy questions
- Proposed approach
  - Revenues and certainty of payment
  - Transmission requirements and certainty of delivery
  - Performance requirements and incentives
  - Predefined adjustment mechanisms
  - Disputes and arbitration
  - Business separation
  - Business failure and administration
- Next steps

Key policy questions

There are several important policy questions that we need to consider:

- What are the key obligations and risks that should be managed by an OFTO?
- How should OFTO's be remunerated?
- How should the requirements for offshore infrastructure be determined and incentivised?
- To what extent should the regime provide mechanisms to manage uncertainty?
- What is the appropriate duration for the offshore regulatory regime?
- How will the regime be developed?

Price control - proposed approach (1)

- Ofgem's role will be to approve OFTO licenses, implement and enforce an offshore transmission regulatory regime
- Our aim is to ensure the regime delivers economic, efficient and fit for purpose infrastructure
- The OFTO will be responsible for financing, owning, building, and maintaining its transmission assets
- Given the expected efficiency benefits of competition, we expect to move away from a five yearly price control to one that may be based on a period more closely related to expected useful life of the asset
- While the proposed assets are largely point to point radial connections, we will need to take account of potential future expansion
- The approach aims to encourage innovation by bidders in design, financing, risk management as well as asset delivery and management

Price control – proposed approach (2)

- Revenues
  - the successful OFTO will have bid a revenue stream for a specified term e.g. 25 years, and will receive payment from the GBSO (who shall recover equivalent amounts through transmission charges)
  - The OFTO would be responsible for calculating its revenue stream, taking account of costs, risks, and returns, etc (A full set of assumptions will be required for comparative bid analysis)
- Delivery requirements (functional approach)
  - Connect x MW of capacity from location of offshore Generator y to onshore network
  - Comply with all interface requirements and standards necessary to provide this connection
  - Meet predefined operational performance requirements

Price control – proposed approach (3)

- Performance incentives – these could include:
  - Delivery date, Capacity target
  - Targets for losses
  - Availability and reliability targets
  - These would be expected to be symmetrical and may include direct penalty/reward payments with the connected generator
- Predefined change mechanisms (Known unknowns)
  - Can reduce risk to bidder and reduce risk premium, but can dilute incentives to manage risk
  - Areas for consideration: capex changes during construction, financing changes post construction, incremental capex
  - Dealing with potential OFTO business or operational failure
- Unknown unknowns – defining arrangements to deal with unforeseen events

Developing the regime

- Proposed approach:
  - Contacted the OTEG price-control sub-group - propose to hold 4 sessions of that group over the coming month starting w/c 30 April;
    - Agendas and minutes will be published on the website;
    - Those wishing to contribute to the debate should e-mail details to colin.green@ofgem.gov.uk.

Conclusions / Next Steps – Robert Hull

Conclusions

Aim of session:

- Provide additional clarity on:
  - the general framework proposed
  - the scope of work to be undertaken
  - the key stages and dates in the implementation process
- Encourage discussion.
- Answer preliminary queries.
- Enable stakeholders to submit a fully informed response to offshoretransmission@ofgem.gov.uk by COB Monday 30th April.
- Two further external communication sessions are planned.

Next steps

Next steps:

- Publication of Policy Statement and industry consultation in July 2007
- **External Communication Session #2 – 23 July 2007 (provisional)**
- Publication of Draft Licences and Codes for industry consultation in January 2008
- **External Communication Session #3 – 14 January 2008 (provisional)**
- Statutory Consultation on Licences and Codes in June 2008
- Go – Active in October 2008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