

## Summary

Department of Energy and  
Climate Change (DECC)

Title:  
Government Response to 'Offshore Electricity Transmission –  
A Further Joint Ofgem/DECC Regulatory Policy Update' -  
Impact Assessment (09/682)

Stage: Consultation

Version: Final

Date: 23 March 2009

Related Publication: Offshore Electricity Transmission – A Joint Ofgem/DECC Regulatory Policy Update  
(09/681)

Available to view or download at:

<http://www.decc.gov.uk/consultations/>

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What is the problem under consideration? Why is Government intervention necessary?

How to facilitate the connection of up to the 33GW of renewable offshore generation to help meet the Government's renewable energy targets. Government intervention will help ensure that this is achieved in a cost effective and efficient manner whilst maintaining the integrity of the system as a whole and achieving best value to electricity consumers.

What are the policy objectives and the intended effects?

To design and implement a regulatory framework that will facilitate the development of offshore electricity transmission networks. The intended effects are for cost effective and efficient connections bringing benefits to offshore wind farm generators, offshore transmission owners and consumers.

What policy proposals are being considered?

This IA accompanies the final in a series of joint consultations (by Government and Ofgem) and sets out the potential impacts of final proposals contained in the accompanying consultation document. These proposals are for an Offshore Transmission Regulatory Regime whereby Offshore Transmission Owners will be granted offshore transmission licences by The Gas and Electricity Markets Authority via competitive tenders to connect offshore generators to the onshore grid. Previous consultations and IAs have considered alternative approaches. This IA sets out the costs and benefits of the proposals compared to existing arrangements of offshore generators being responsible for connection to the onshore grid.

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects? DECC and Ofgem will monitor the new regime to ensure that the desired benefits are being realised.

**Ministerial Sign-off** For consultation stage Impact Assessments:

*I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.*

Signed by the responsible Minister:



..... Date: 23 March 2009

**Description: Offshore Electricity Transmission Regulatory Regime**

<b>COSTS</b>	<b>ANNUAL COSTS</b>		Description and scale of <b>key monetised costs</b> by 'main affected groups'. Costs incurred by Ofgem, DECC, and National Grid Electricity Transmission (NGET) in developing and establishing the new regime. Costs for transitional projects in meeting the new regulatory requirements and engaging in the establishment of the new regime. Increase in the connection application fee payable to NGET by offshore developers. Costs incurred by Ofgem and participants in the tender process. Costs of any appeal under the property transfer scheme (all shown as One-off Annual Costs). Ongoing compliance costs for OFTOs and for Ofgem in monitoring project. Establishment and ongoing costs to NGET in its function as GB System Operator (GBO) offshore (all shown as Average Annual costs).
	<b>One-off</b> (Transition)	<b>Yrs</b>	
	<b>£ 18.8m - £ 19.0m</b>	<b>20</b>	
	<b>Average Annual Cost</b> (excluding one-off)		
	<b>£ 2.45m - £ 2.85m</b>	<b>20</b>	
<b>Total Cost (PV)</b>			<b>£ 302m - £ 309m</b>
Other <b>key non-monetised costs</b> by 'main affected groups'			

<b>BENEFITS</b>	<b>ANNUAL BENEFITS</b>		Description and scale of <b>key monetised benefits</b> by 'main affected groups'. Efficiencies through the competitive tender process and regulatory framework.
	<b>One-off</b>	<b>Yrs</b>	
	<b>Average Annual Benefit</b>		
	<b>£ 54m - £ 119m/yr</b>	<b>20</b>	
<b>Total Benefit (PV)</b>			<b>£ 763m - £ 1699m</b>
Other <b>key non-monetised benefits</b> by 'main affected groups'			
NGET, in its function as GBO onshore and offshore, developing and maintaining a coordinated and efficient transmission system.			

**Key Assumptions/Sensitivities/Risks**

That offshore arrangements will mirror onshore arrangements unless there is good reason not to. There will be a maximum of 74 tenders. Regulatory costs will be similar to existing onshore costs. Competitive tender costs and benefits will be similar to Private Finance Initiative (PFI) tenders.

Price Base Year 2009	Time Period Years 20	<b>Net Benefit Range (NPV)</b> <b>£ 461m - £ 1390m</b>	<b>NET BENEFIT (NPV Best estimate)</b> <b>£ 925m</b>
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What is the geographic coverage of the policy/option?		GB & Renewable Energy Zone		
On what date will the policy be implemented?		June 2009		
Which organisation(s) will enforce the policy?		Ofgem/DECC		
What is the total annual cost of enforcement for these organisations?		£ Not /Known		
Does enforcement comply with Hampton principles?		Yes		
Will implementation go beyond minimum EU requirements?		N/A		
What is the value of the proposed offsetting measure per year?		£ N/A		
What is the value of changes in greenhouse gas emissions?		See Renewable Energy Strategy		
Will the proposal have a significant impact on competition?		No		
Annual cost (£-£) per organisation (excluding one-off)	Micro	Small	Medium	Large
	0	0	0	0
Are any of these organisations exempt?	No	No	No	No
<b>Impact on Admin Burdens Baseline (2005 Prices)</b>		<b>(Increase - Decrease)</b>		
Increase of £ 0	Decrease of £ 0	Net Impact	£ 0	

Key: **Annual costs and benefits: Constant Prices** **(Net) Present Value**

## Strategic Overview

1. The Government is committed to a European Union (EU) wide target of 20% of all energy to come from renewable sources by 2020. The UK's proposed share is to achieve 15% of its energy needs from renewables. The UK would therefore be required to generate 30 to 40% of its electricity from renewable sources by 2020<sup>1</sup>.
2. Offshore wind is an essential component in meeting this target and to dealing with the challenge of climate change and energy security more generally. In December 2007 the Secretary of State for Business announced proposals for a potential major expansion of UK offshore wind, with a draft plan<sup>2</sup> that could allow companies to develop up to a further 25GW of offshore wind by 2020 on top of the 8GW already expected to be delivered. In addition, in February 2009 The Crown Estate announced exclusivity awards to build offshore wind farms in Scottish territorial waters for a capacity of over 6GW<sup>3</sup>.

## Objective

3. We estimate that investment of around £13 billion<sup>4</sup> in grid infrastructure onshore and offshore will be necessary to connect the 33GW of offshore wind to the onshore grid. The objective of the policy is to ensure that the framework is in place to help facilitate this investment in an efficient and effective manner.

## Impact Assessment Update

4. This Impact Assessment (IA) accompanies the final consultation on the proposed new offshore transmission regulatory regime. The approach to this IA differs from previous IAs published during the consultation process in three ways.
5. First, recent IAs (see Annex B) have included analysis of the potential impact of the new regime on the delivery of offshore wind. This has been measured in the shadow price of carbon (or the EU Emissions Trading Scheme price) or the costs of fuel for alternative Combined Cycle Gas Turbine (CCGT) generation. However, some respondents to previous IAs have expressed concerns that this was overstating the benefits of the proposals. In addition, in June 2008 the Government published its Renewable Energy Strategy (RES)<sup>5</sup> which set out the options for meeting the UK share of the EU's 2020 renewable energy target. This consultation was accompanied by a set of IAs which analysed the potential costs and benefits of meeting the targets, including for renewable electricity<sup>6</sup>. Given this development, and in light of the comments from respondents, this IA does not analyse the benefits of the proposals in terms of the delivery, or faster delivery, of offshore wind to meet the renewable targets. We recognise that the proposed new regulatory regime facilitates, rather than enables, the delivery of offshore wind and this is now reflected in this IA.
6. Second, this IA compares the costs and benefits of the proposed new offshore transmission regime with the counterfactual of the existing arrangements. The existing arrangements involve generators being responsible for the design, finance, construction and maintenance of their own transmission assets. The main element of this comparison is the introduction of competitive tendering for an OFTO licence.

<sup>1</sup> <http://www.berr.gov.uk/files/file46799.pdf>

<sup>2</sup> <http://www.berr.gov.uk/aboutus/ministerialteam/Speeches/page42831.html>

<sup>3</sup> <http://www.thecrownestate.co.uk/newscontent/92-scottish-offshore-windfarm-awards.htm>

<sup>4</sup> [http://www.offshore-sea.org.uk/consultations/Offshore\\_Energy\\_SEA/OES\\_NatGrid\\_OnshoreETS.pdf](http://www.offshore-sea.org.uk/consultations/Offshore_Energy_SEA/OES_NatGrid_OnshoreETS.pdf) contains NGET estimate of Round 3 connection costs. We have previously estimated Rounds 1 and 2 connection costs to be £2.5bn.

<sup>5</sup> <http://www.berr.gov.uk/files/file46799.pdf>

<sup>6</sup> <http://www.berr.gov.uk/files/file46785.pdf>

7. Third, the arrangements for the leasing of Round 3 offshore wind projects have now become clearer. This includes information published by The Crown Estate on Round 3 and an associated study<sup>7</sup> undertaken by National Grid Electricity Transmission (NGET) estimating costs for connecting Round 3 projects to the onshore grid. This has enabled us to estimate the costs and benefits of the regime applied to Round 3 whereas previous IAs had only covered Rounds 1 and 2. This IA, therefore, covers the next 20 years as opposed to the 6 year period covered by previous IAs. It does not, however, cover the potential extra 6GW in Scottish territorial waters as these are not covered in the RES consultation, although the new regime would be applicable to any projects in this area.

### **Options identification and analysis**

8. Since taking powers in the Energy Act 2004 (EA2004) the Government has been developing proposals with Ofgem for the new offshore transmission regulatory regime through consultation. During the consultation process, the Government and Ofgem have considered alternative approaches to the proposed asset based competitive licensing regulatory regime. These alternatives have included the continuation of existing unlicensed arrangements, extending the onshore arrangements offshore, a licensed merchant approach; and adopting an area based (“exclusive”) approach to competition.
9. Previous IAs have examined the costs and benefits of these alternatives and they are listed at Annex B. The accompanying consultation document sets out in detail when and why decisions were made in developing the current proposals. This IA, therefore, compares the current proposals with the counterfactual of the existing arrangements.

### **Offshore Transmission Consultation Update and Next Steps**

#### **Joint DECC/Ofgem Consultation Document**

10. This IA accompanies the final offshore transmission consultation document entitled “Government Response to Offshore Electricity Transmission – A further Joint Ofgem/DECC Regulatory Policy Update – Final Consultation Document”. This final consultation document before the new regime is implemented at Go Active sets out the policy proposals and detailed implementation drafting for comment. The key proposals for the new regulatory regime are:
  - To grant an OFTO licence that will remain in force until it has been revoked;
  - To provide a revenue stream to fund the OFTO for an initial period of 20 years, with limited regulatory intervention;
  - That, at the end of the initial 20-year period, the Gas and Electricity Markets Authority (The Authority) would consider, on a case-by-case basis, setting a revenue stream for a further period by either undertaking a regulatory review or undertaking a further tender exercise;
  - To introduce an OFTO incentive for operational performance. Targets will be determined on a project-by-project basis to reflect the functional requirement of the offshore generator;
  - To allow incremental investments in offshore transmission assets of a value of up to 20% of the initial capital cost of the asset; and
  - To establish regulatory reporting and ring fencing requirements that reflect better regulation principles.

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<sup>7</sup> [http://www.offshore-sea.org.uk/consultations/Offshore\\_Energy\\_SEA/OES\\_NatGrid\\_OnshoreETS.pdf](http://www.offshore-sea.org.uk/consultations/Offshore_Energy_SEA/OES_NatGrid_OnshoreETS.pdf)

11. This consultation represents a final opportunity before the regime is implemented to comment on proposals on the detailed design of the regulatory regime; on the updated changes to standard industry documents that the Secretary of State considers are appropriate for purposes connected with offshore transmission; and on the special licence conditions and other aspects of the regulatory regime to be implemented by Ofgem. The period for comment closes on 7 May 2009.

### **The Competitive Tender Process and Tender Regulations Consultation**

12. On 5 March 2009 Ofgem published its final consultation document on the tender process and the regulations that outline the Gas and Electricity Markets Authority's (The Authority) process for conducting tenders. Responses to that document are due by 2 April 2009 for the tender regulations and 16 April for the tender process.
13. The separate consultation document on the tender process and regulations is entitled "Offshore Electricity Transmission: Updated Proposals for the Competitive Tender Process". The consultation is available from the Ofgem website<sup>8</sup>.

### **Transmission Charging**

14. On 4 February 2009 the Authority published an IA and Consultation on NGET's proposed charging modification<sup>9</sup>. This relates to the introduction of charging arrangements to recover the costs of transmission infrastructure assets required to facilitate the connection from a generating site located in offshore waters to the onshore network. The consultation closed on 18 March 2009 and the Authority has until 30 March 2009 to make its decision.

### **Next Steps**

15. We anticipate the key high-level milestones and dates to be as follows:

#### **23 March 2009**

Publication of the Government response and IA as the final consultation in developing the offshore transmission regulatory regime before implementation begins.

#### **7 April 2009**

DECC/Ofgem External communication session

#### **May 2009**

Commencement of section 92 of EA2004 and sections 44(1) and 44(2) of Energy Act 2008 (EA2008) to enable the Authority to make regulations to enable the first round of tenders to begin shortly after 'Go-Active'

#### **Early June 2009**

DECC/Ofgem statement on changes to proposals following this final consultation

#### **24 June 2009**

'Go-Active' commencement of sections 90 and 91 of EA2004

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<sup>8</sup> <http://www.ofgem.gov.uk/Networks/offtrans/pdc/cdr/cons2009/Documents1/Offshore%20Electricity%20Transmission%20Updated%20Proposals%20for%20the%20Competitive%20Tender%20Process.pdf>

<sup>9</sup> <http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/Charging/Documents1/090204GBECM08IA.pdf>

## **Summer 2009**

First tenders commence

## **June 2010**

'Go-Live' commencement of sections 89 and 180 of EA2004 and section 44(3) of EA2008

16. DECC and Ofgem will hold an external communication session on 7 April 2009 at the BERR Conference Centre, 1 Victoria Street, London SW1H 0ET to discuss the consultation in more detail. Invitations will be issued shortly but if you would like to reserve a place please send an email to [offshore.transmission@decc.gov.uk](mailto:offshore.transmission@decc.gov.uk)

### **Costs and Benefits**

#### **Sectors and groups affected**

17. The new regulatory regime will affect offshore generators, onshore electricity transmission and distribution companies, prospective OFTOs, NGET in its function as GB System Operator (GBSO) onshore and offshore and consumers of electricity in Great Britain.

#### **Cost Categories**

##### **Economic costs and benefits**

18. The economic costs and benefits of the proposals are set out in the summary and analysis sheet. In this section they are presented in two categories of Establishing and Implementing the Regulatory Regime and Competitive Tender Process.

##### **Environmental costs and benefits**

19. As a facilitator of offshore wind delivery the proposals will not have specific environmental costs and benefits. The environmental costs and benefits of offshore wind are captured in the RES consultation.

##### **Social costs and benefits**

20. As a facilitator of offshore wind delivery the proposals will not have specific social costs and benefits. The social costs and benefits of offshore wind are captured in the RES consultation.

### **Key Proposals**

21. We have divided the impact of proposals into two categories. This section sets out the assumptions and rationale for the costs and benefits in these categories in more detail. Please note that the benefits and costs have not been presented in this section on a Net Present Value basis. All costs and benefits in the Summary and Evidence Sheet have been calculated on an NPV basis though.

### **Establishment and implementation of the Regulatory Regime**

22. The main benefits and costs as set out in the Summary Analysis and Evidence sheet for the establishment and implementation of the Regulatory Regime are:

## Benefits

- Providing a stable, secure and certain framework for investment in offshore electricity transmission.
- Extending the NGET's GBSO function to offshore.

## Costs

- Potential costs for transitional projects in meeting changed regulatory requirements, associated legal costs, Regulated Asset Value (RAV) assessment and contingency in complying with the new regime.
- Estimated compliance costs for OFTOs and Ofgem.
- The costs to Ofgem, DECC, NGET and industry in developing and establishing the new regime.
- Estimated costs to NGET as GBSO.
- Estimated Increase in average connection application fee payable to NGET due to offshore applications (the cap on the connection application fee will not change as a result of the proposals).

## Assumptions

### Benefits

23. The benefits of an open, secure and certain regulatory regime with the risks resting with those best able to manage them will attract investment to the offshore wind sector. The tangible benefits of this for offshore transmission will be evident through measurable efficiencies which are covered in the competitive tender process section. NGET, in its function as GBSO onshore and offshore, will develop and maintain a coordinated and efficient transmission system.

### Costs

- There are 14 transitional projects<sup>10</sup> for which there will be costs in complying with the new regulatory regime the scale of which will largely depend upon their stage of development.
- OFTOs will have to comply with similar regulatory reporting requirements as onshore transmission owners (but given the simpler nature of OFTO businesses Ofgem's approach would be lighter than onshore).
- Ofgem costs of dealing with offshore regulatory reporting will be equivalent to those it incurs for the onshore gas and electricity networks
- The costs to OFTOs of compliance with regulatory reporting requirements are assumed to be three times those incurred by Ofgem.
- Offshore arrangements will replicate onshore, except where there is a good reason for a different approach.
- Industry will continue to play an active role in the development of the regime.
- Existing arrangements for connecting offshore generators to the onshore grid involves compliance with some aspects of the codes.
- A total of 24 projects (under Rounds 1 & 2) and 50 projects (under Round 3) will require an OFTO. The Round 3 assumption is based on 25GW divided into 50 projects of 500MW each<sup>11</sup>. This is the maximum number we would expect in Round 3 as many are likely to be larger and/or coordinated.
- The 3 onshore TOs will be required to comply with the proposed changes to transmission licences.

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<sup>10</sup> Projects constructed, under construction or sufficiently advanced to meet Ofgem's criteria for classification as a transitional project.

<sup>11</sup> This assumption is based on the sizes of projects from R2 and the size of the nine indicative zones for Round 3. This is informed by a NGET feasibility study on behalf of DECC into UK Offshore Energy SEA which used a scenario of project locations and sizes. [http://www.offshore-sea.org.uk/consultations/Offshore\\_Energy\\_SEA/OES\\_NatGrid\\_OnshoreETS.pdf](http://www.offshore-sea.org.uk/consultations/Offshore_Energy_SEA/OES_NatGrid_OnshoreETS.pdf)

- The relevant codes, licences and agreements once implemented will be subject to industry modification procedures and there is likely to be costs involved should modifications be required. The Government considers that these codes, licences and agreements are necessary to ensure that existing obligations at the onshore point of connection are properly reflected offshore
- NGET will take on a number of new obligations relating to the extension of its GBSO function offshore.

### Economic benefits

24. The Regulatory Regime proposals will provide certainty and attract investment and new entrants to the market. The decision to extend onshore arrangements offshore unless there is good reason not to do so will also bring familiarity and certainty. Ensuring that risks are allocated to those best able to manage them will also deliver efficiencies. These benefits of the regulatory regime proposals can be measured in terms of efficiencies delivered by the competitive tender process which is covered in the next section.
25. The extension of NGET's function as GBSO offshore will also bring benefits as it will help NGET to develop and maintain a coordinated and efficient transmission system. The Electricity Network Strategy Group (ENSG) estimates that it could result in savings of £850m across the onshore and offshore systems<sup>12</sup>. We are unable to measure the offshore impact of these benefits, however, so this amount has not been included as a monetised benefit of the proposals.

### Economic costs

#### *Costs in developing and establishing the Regulatory Regime*

26. We estimate costs of £3.4m for Ofgem and DECC staff, technical, legal and economic consultancy in establishing the regime including developing proposals, drafting instructions for changes to codes, licences, agreements, and including provisions in the EA2008. NGET estimates its extra costs to be £1.4m<sup>13</sup>.

#### *Costs of compliance for transitional projects*

27. There are potential costs for the 14 transitional projects in engaging in the development of the new regime, associated legal costs in meeting changed regulatory requirements, and complying with the RAV assessment process. We have estimated the total costs for all transitional projects of engaging in the development of the new regime to be £1.4m (which mirrors the estimated costs to NGET of helping to develop and establish the new regime). We estimate legal costs to be £3.5m in total for all developers based on each developer's legal costs being half of Ofgem's estimated legal costs of implementing the regime of £500k. This includes legal costs in dealing with the separation of generation and transmission assets on an operational basis, eg contracts for access to the assets in question. We estimate the total cost to all developers to comply with the RAV assessment to be £1.4m based on the £100k allowed to each developer for such costs to be included in the RAV. To cover any uncertainty of these figures we have also added a 100% contingency of £6.3m. This gives a total cost to the 14 transitional projects in the establishment of the new regime of £12.6m or £900k per project.

#### *Ongoing costs of implementing the Regulatory Regime*

28. NGET in its function as GBSO onshore and offshore will incur additional costs. NGET estimates these to be £7.5m up to the end of 2011/12 (the end of the current price control period). This relates to the interface with the tender process, the new provisions

<sup>12</sup> [http://www.ensg.gov.uk/assets/1696-01-ensg\\_vision2020.pdf](http://www.ensg.gov.uk/assets/1696-01-ensg_vision2020.pdf)

<sup>13</sup> This figure is reported by NGET, and is still subject to an efficiency review by Ofgem.

within the codes, development costs and producing an offshore document equivalent to the Seven Year Statement (SYS). The SYS costs of £30K-60K are included in the overall costs. However final costs will be dependent on the amount and level of detail required and there will be a requirement to define the specific obligations in respect of offshore transmission developments. Consideration is still ongoing about the exact nature of the document and information required.

29. NGET only forecast out for 3 years as this covers the remainder of the existing Price Control period (offshore costs will be included in ongoing submissions for 2012 onwards). An ongoing cost to NGET of between £1.5m and £2m pa for the additional resource required has been estimated from 2012 onwards.

#### *Regulatory Reporting Requirements*

30. Each licensed OFTO will be required to provide regulated accounts to Ofgem. This is a cost that would not be present under existing arrangements. Estimating the reporting costs for OFTOs is difficult for a variety of reasons. The number of OFTOs that will be appointed over the next 20 years is not yet known; and it is likely that certain companies may hold more than one OFTO licence, and so may be able to exploit scale economies that reduce the cost of reporting requirements (through the outsourcing of service contracts).
31. Because of these difficulties we have taken the current cost of onshore regulatory reporting as our point of comparison. The total transmission asset base for Rounds 1, 2 and 3 projects are estimated at £13 billion. This is approximately equivalent to the onshore gas and electricity transmission networks assets. Currently Ofgem need a team of 3 staff to deal with the reporting returns of the six onshore network companies. This is provided at an organisational cost of around £300k per annum. Ofgem therefore estimates its cost of dealing with the reporting requirements for the offshore network companies would be approximately equivalent to those onshore.
32. The OFTOs' cost of dealing with reporting requirements are likely to be greater than Ofgem's as there may be fewer scale benefits for them to exploit, and there is more effort for companies to complete the accounts than for Ofgem to analyse them. We estimate the burden is 3 times greater in total for the OFTOs as a whole than Ofgem. As such we estimate the cost to OFTOs to be £900k per annum.
33. In order to estimate these costs for the period being considered a NPV must be established. However, the appointment of the OFTOs will occur gradually over the next 20 years so it would not be appropriate to simply take the per annum costs estimated above and apply them across the whole 20 period. Instead we have assumed that the reporting costs will increase over time as more OFTO licences are awarded. For Ofgem we assume the cost will be £100k for the first 5 years, £200k for the following 10 years and £300k for the final 5 years. For all OFTOs we assume the cost will be £300k for the first 5 years, £600k for the following 10 years and 900k for the final 5 years. This gives an approximate total cost of regulatory reporting over the next 20 years of £4m for Ofgem and £12m for OFTOs as a whole.

#### *Connection Application Fee*

34. The current connection application fee has a ceiling of £250k; however actual current fees average at c.£100k. Under the new regime such fees are estimated to be nearer the £250k ceiling due to NGET (as GBSO) having considerably more worked to undertake when dealing with offshore applications. We have therefore applied a £150k extra cost per project for the 5 existing projects which have yet to make connection applications and for the estimated maximum of 50 projects in Round 3. This results in an additional estimated total cost of £8.25m.

## Competitive Tender Process

35. The main costs and benefits set out in the Summary Analysis and Evidence page are:

### **Benefits**

- Estimated efficiencies delivered through the competitive tenders.

### **Costs**

- Estimated costs to Ofgem of running the tender process;
- Estimated costs to OFTOs of bidding in the tender process (internal costs);
- Estimated costs of appeals under the property transfer scheme

### Assumptions

- Under Rounds 1 & 2 a maximum of 24 projects will be put out for tender (these projects are listed at Annex A). It has been assumed that these projects will be spread out over 6 years (7 tenders pa in years 1 and 2; 3 tenders pa in years 3 and 4; 2 tenders pa in years 5 and 6). Of these 24 projects up to a total of 14 may be tendered under the transitional tender arrangements.
- 50 projects (under Round 3) will be tendered spread evenly over the 14 year period. The Round 3 assumption is based on 25GW divided into 50 projects of 500MW each<sup>14</sup>. This is the maximum number of projects we would expect in Round 3 as many projects are likely to be larger and/or coordinated.
- Average value of a tender for Round 1 and Round 2 projects will be £104m (up to £2.5bn of assets in 24 tenders) and for Round 3 will be £166m-£188m (£8.3bn-£9.4bn of offshore assets in maximum of 50 tenders)
- Competitive tendering will deliver efficiencies of 10-20% compared to the current arrangements. National Audit Office (NAO) analysis has measured the average efficiency gain in projects tendered under the Private Finance Initiative (PFI) as between 10% and 20%<sup>15</sup>.
- Estimated costs to OFTOs of bidding for projects based on PFI tender costs of 0.6% of total value of tender per bidder. There will be 4 bidders per tender incurring such costs.
- Ofgem's projected costs for administering tenders are c. £0.56m which will be recovered from tender participants.
- Estimated costs of an appeal to the Competition Appeal Tribunal (CAT) under the property transfer scheme will be similar to comparable appeals and there will be two such appeals.

### Economic benefits

36. We estimate that the competitive tendering process will deliver benefits in terms of efficiency savings of 10-20% compared to the current arrangements. This is based on NAO analysis of the benefits of PFI projects which were also cited in a House of Commons research paper<sup>16</sup> and a report commissioned by the Treasury Taskforce<sup>17</sup>. We note that the research compares PFI projects to public bodies procuring under more

<sup>14</sup> This assumption is based on the sizes of projects from R2 and the size of the nine indicative zones for Round 3. This is informed by a NGET feasibility study on behalf of DECC into UK Offshore Energy SEA which used a scenario of project locations and sizes. [http://www.offshore-sea.org.uk/consultations/Offshore\\_Energy\\_SEA/OES\\_NatGrid\\_OnshoreETS.pdf](http://www.offshore-sea.org.uk/consultations/Offshore_Energy_SEA/OES_NatGrid_OnshoreETS.pdf)

<sup>15</sup> The two National Auditing Office papers are available on its web site, *PFI Construction Performance* (2002) at: [http://www.nao.org.uk/publications/nao\\_reports/02-03/0203371.pdf](http://www.nao.org.uk/publications/nao_reports/02-03/0203371.pdf) and *Modernising Construction* (2001) at: [http://www.nao.org.uk/publications/nao\\_reports/00-01/000187.pdf](http://www.nao.org.uk/publications/nao_reports/00-01/000187.pdf)

<sup>16</sup> The House of Commons report *The Private Finance Initiative (PFI)* (2001) is available on its web site at: <http://www.parliament.uk/commons/lib/research/rp2001/rp01-117.pdf>

<sup>17</sup> <http://www.parliament.uk/commons/lib/research/rp2001/rp01-117.pdf>

<sup>17</sup> [http://www.ibl.uni-stuttgart.de/05forschung/ppp/pdf/HM\\_Treasury/value\\_for\\_money\\_drivers\\_in\\_the\\_private\\_finance\\_initiative\\_pdf\\_01-2000.pdf](http://www.ibl.uni-stuttgart.de/05forschung/ppp/pdf/HM_Treasury/value_for_money_drivers_in_the_private_finance_initiative_pdf_01-2000.pdf)

traditional methods and that the comparison in this IA is between running competitive tenders (which are comparable to PFI tenders) and generators connecting their own projects (or contracting others to do so) where commercial drivers would already be present. However, the features of PFI and the reasons cited for delivering efficiencies in the case studies covered by the NAO reports such as better risk allocation, certainty and incentives to deliver/maintain assets are all common to the characteristics of the proposed offshore transmission regime and competitive tendering process. We would also expect OFTOs to potentially deliver efficiencies through greater expertise and purchasing power of transmission assets, particularly where they successfully bid for more than one project and in the tendering of Round 3 projects where experience would have developed.

37. In addition the regulatory regime proposals will open the offshore transmission market to new entrants with different structures and access to finance and with potentially a lower return requirement (given the lower risk involved than financing a generation and transmission project as a whole) which provides further scope for the efficiencies to be delivered. The Government and Ofgem also consider that these factors, along with the reduction of the capital requirement of offshore renewable developers (by transferring the financing requirement of transmission assets to an OFTO), will address the challenge of securing finance in the current credit crunch.
38. NGET has estimated that the cost of transmission connections for Round 3 will be around £10.4bn<sup>18</sup> and that the offshore element of this required investment (which will be the subject of competitive tenders) will be 80-90%<sup>19</sup>. This provides a figure of £8.3bn-£9.4bn of Round 3 offshore assets potentially subject to tender. In addition we have previously estimated that up to £2.5bn of Rounds 1 and 2 assets will also be the subject of competitive tenders. This gives a total offshore asset value of £10.8bn-£11.9bn which will be subject to competitive tender. Potential savings from efficiencies would therefore be £1.08bn-£2.38bn.

### Economic costs

39. The estimated internal cost to OFTOs of participating in tenders is based on a joint industry and Government report (which was also cited in a House of Commons research paper) on bid costs for PFI projects<sup>20</sup>. For consistency we are using these PFI tender costs as a comparator in the same way as we have used PFI as a comparator for the benefits of competitive tendering. These costs averaged at 0.6% per bidder of the total value of the tender. Based on an estimate of 24 tenders for assets of £2.5bn for Rounds 1 and 2 and a maximum of 50 tenders for assets of £8.3bn-£9.4bn for Round 3; we estimate that the average value of tenders for Round 1 and 2 projects will be £104m and for Round 3 projects will be £166-188m. We have assumed that there will be a maximum of 5 bidders incurring these costs per tender but that the successful bidder will recover these costs through its bid (which is taken into account under the economic benefits of competitive tendering section) meaning that these costs are reflected for 4 bidders in this section. This is in line with Ofgem's Competitive Tender Process Consultation Document<sup>21</sup> which estimates 3-5 bidders will be invited to tender for each project. This provides internal non-recoverable OFTO bid costs of £2.5m per project (4 bidders at £624k per bidder) for Rounds 1 and 2 and £5m (4 bidders at £1.25m per bidder) for Round 3. The total estimated internal bid costs for a maximum of 74 tenders is therefore £310m.

<sup>18</sup> [http://www.thecrownestate.co.uk/round3\\_connection\\_study.pdf](http://www.thecrownestate.co.uk/round3_connection_study.pdf)

<sup>19</sup> [http://www.offshore-sea.org.uk/consultations/Offshore\\_Energy\\_SEA/OES\\_NatGrid\\_OnshoreETS.pdf](http://www.offshore-sea.org.uk/consultations/Offshore_Energy_SEA/OES_NatGrid_OnshoreETS.pdf)

<sup>20</sup> <http://www.parliament.uk/commons/lib/research/rp2001/rp01-117.pdf>

<sup>21</sup> <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=1&refer=Networks/offtrans/pdc/cdr/cons2009>

40. Ofgem's projected costs, as set out in its Competitive Tender Process Consultation Document, for administering tenders are c. £0.56m<sup>22</sup>. These estimates only relate, as yet, to the first set of tenders. Later tenders may cost more to administer given the increased size and potential complexity, however some efficiencies are expected to be gained from experience of running the tenders and we note that 74 is the maximum number of tenders anticipated. Given these uncertainties, Ofgem are unable to provide sufficiently detailed estimates of their costs for the later tenders at this time so we have applied the £0.56m figure to all tenders. This provides an estimated total for all 74 tenders of £41.4m for Ofgem tender costs, which would be recovered from tender participants.
41. The costs of CAT appeals under the property transfer scheme (as included in the EA2008) to Ofgem are estimated to be £250k-£750k per case based on Ofgem's experience of similar appeals. We estimate that the combined costs to other parties in an appeal will be in a similar range. CAT has estimated its costs at £80k per case. We estimate that 2 cases would be appealed to the CAT based on a maximum of 14 transitional projects being potentially eligible for a Property Transfer Scheme to be made. This is due to our expectation that normal commercial interests will mean that assets will be transferred without recourse to such a scheme (strengthened by the deterrent value of the scheme and the commitment by developers and preferred bidders to transfer assets set out in the tender documentation). The Explanatory Memorandum accompanying the Property Transfer Scheme provisions in the EA2008 emphasised that this provision is very much a last resort. This gives an estimated total cost of £1.2m-£3.2m

### **Competition Assessment**

42. In analysing the potential impact of the proposed new regime on competition the Government has considered the four initial questions outlined in the OFT guidance<sup>23</sup> as follows:

In the affected market, would the proposals:	Government response
Directly limit the number or range of suppliers?	No
Indirectly limit the number or range of suppliers?	No
Limit the ability of suppliers to compete?	No
Reduce suppliers' incentives to compete vigorously?	No

43. The Government therefore considers that the proposed policy options are unlikely to raise any significant competition concerns in terms of market entry and ability to compete or innovate.
44. Furthermore, the Government's energy policy regulates where necessary and encourages competition where possible. The introduction of an element of competition in this new market for offshore transmission has been the Government's intention throughout the regime's development. The November 2006 Consultation Document reaffirmed this by setting out two approaches that both contained varying degrees of competition for the award of offshore transmission licences. By deciding to implement the non-exclusive approach in April 2007, the Government has selected the most competitive option. Further background to this approach and the decision to adopt it can be found on the BERR website<sup>24</sup>.

<sup>22</sup> <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=1&refer=Networks/offtrans/pdc/cdr/cons2009://www.ofgem.gov.uk/Networks/offtrans/pdc/cdr/cons2009/Documents/1/Offshore%20Electricity%20Transmission%20Updated%20Proposals%20for%20the%20Competitive%20Tender%20Process.pdf>

<sup>23</sup> [http://www.of.gov.uk/advice\\_and\\_resources/resource\\_base/guidelines/](http://www.of.gov.uk/advice_and_resources/resource_base/guidelines/)

<sup>24</sup> <http://www.berr.gov.uk/energy/sources/renewables/policy/offshore-transmission/Licencing%20Offshore%20Electricity%20Consultation%20-%20Nov%202006/page35525.html>

45. A further consultation in July 2007 and subsequent Government Response in January 2008 followed by further consultation in June 2008 and then November 2008 set out in more detail how the regulatory regime will be designed to facilitate this increased competition
46. The latest consultation is a final step in setting out in further detail how the competitive tender process will operate and the steps that will be taken to ensure that it is a fair and effective competitive process. The Government considers that the proposals set out in this latest consultation document will not have any adverse impact on competition.

### **Small Firms Impact Test**

47. This consultation is a final stage in the development of the regulatory regime for offshore electricity transmission. Previous IAs<sup>25</sup> have considered the possible impact that this new regime may have on small firms and concluded that the measures were unlikely to impact disproportionately on them.
48. These assertions were tested through the previous consultations and through a wide range of meetings with relevant stakeholders, companies and trade associations including organisations that represent small firms active in these sectors. No responses were received to suggest that there was likely to be any significant impact on small and medium size enterprises (SMEs)<sup>26</sup>. DECC and Ofgem remained committed to this open dialogue approach.
49. A much smaller subset of small businesses active in the generation of renewable energy and/or the manufacture of materials required for offshore generation or transmission might be more affected by the regime. However, the Government does not consider that the impact of this will be disproportionate. Indeed the Government considers that the competitive approach being introduced offers a significant opportunity for SMEs in this sector.
50. Whilst developing this consultation we have consulted the Enterprise Directorate in BERR (formerly the Small Business Service) and they have agreed that the proposed regulatory measures are unlikely to have a disproportionate effect on small firms.

### **Other regulatory impact issues**

51. The Government does not consider that any of the proposals give rise to any significant impacts in relation to human rights, race equality, gender, disability, health, environment, legal aid, and sustainable development issues, or are likely to have a material impact on the rural economy.

### **Human rights issues**

52. The Joint Ofgem/BERR Policy Statement of July 2007 set out that a developer must agree to transfer the offshore transmission assets to the selected OFTO under the terms set out in its request for the appointment of an OFTO. It also stated that appropriate arrangements would need to be put in place to ensure that a transfer could occur. Such arrangements were set out in more detail in the Government Response and Ofgem's Consultation Document both of January 2008. Powers to ensure the transfer of the assets by means of a Property Transfer Scheme are included in the EA2008.
53. The July 2007 document also outlined an OFTO of last resort mechanism. This proposal was elaborated on in the consultation documents published in January and June 2008, and was revised in the November 2008 Policy Update document in order to take account of the EU ownership unbundling requirements that are likely to be

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<sup>25</sup> <http://www.berr.gov.uk/energy/sources/renewables/policy/offshore-transmission/consultations/page42095.html>

<sup>26</sup> <http://www.berr.gov.uk/energy/sources/renewables/policy/offshore-transmission/consultations/page42095.html>

introduced in Third Package of provisions for the Electricity Directive. The accompanying consultation document sets out further details of this revised proposal, in light of responses to previous consultations.

54. The Property Transfer Scheme and OFTO of last resort powers may engage Article 1 of the First Protocol to the European Convention on Human Rights (“ECHR”). However, the powers pursue a legitimate aim and are proportionate to the achievement of that aim.
55. The making of a Property Transfer Scheme may also involve a determination of a person’s civil rights and obligations and therefore engage Article 6(1) of the ECHR, which protects the right to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law. The Government considers that the opportunities to make representations and the remedies available will provide an adequate safeguard of the rights which may arise under Article 6(1). The Government and Ofgem are also considering whether a right of appeal will be open to transmission licensees selected to become an OFTO of last resort in addition to the right to a judicial review of any direction and, if so, what the appeal mechanism would be
56. Finally, the Authority will have a power to obtain information to assist it in considering an application for a Property Transfer Scheme, which may engage Article 8 of the ECHR. However, the Authority needs to be in possession of all relevant facts before making decisions concerning property, rights and liabilities which belong to others. This information power is therefore justified under the terms of Article 8(2) as being in the interests of protecting the rights and freedoms of others

#### Equalities duties (race, disability and gender)

57. After initial screening as to the potential impact of this policy/regulation on race, disability and gender equality it has been decided that there will not be a major impact upon minority groups in terms of numbers affected or the seriousness of the likely impact, or both.

## Specific Impact Tests: Checklist

Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

**Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.**

Type of testing undertaken	<i>Results in Evidence Base?</i>	<i>Results annexed?</i>
Competition Assessment	Yes	No
Small Firms Impact Test	Yes	No
Legal Aid	No	No
Sustainable Development	No	No
Carbon Assessment	No	No
Other Environment	No	No
Health Impact Assessment	No	No
Race Equality	Yes	No
Disability Equality	Yes	No
Gender Equality	Yes	No
Human Rights	Yes	No
Rural Proofing	No	No

Existing offshore wind generation projects

Barrow
Docking Shoal
Dudgeon East
Greater Gabbard
Gunfleet Sands (2 projects)
Gwynt-y-Mor
Heysham
Humber Gateway
Lincs
London Array
Ormonde <sup>27</sup>
Race Bank
Rhyl Flats
Robin Rigg (2 projects)
Shell Flats
Sheringham Shoal
Thanet
Triton Knoll
Walney (2 projects)
West of Duddon Sands
Westermost Rough

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<sup>27</sup> The Ormonde project is leased outside of Rounds 1 and 2, but would be tendered under the arrangements in the new regime

Previous Impact assessments<sup>28</sup>

*URN 05/1404 Regulation of Offshore Electricity Transmission: Partial Regulatory Impact Assessment, July 2005.*

Assessed 4 policy options - the unlicensed/licensed exempt approach; extension of the current onshore regime to offshore; extension of the current onshore regime offshore with a degree of cross-subsidisation with other onshore users; and a licensed merchant approach.

*URN 06/682 Regulation of Offshore Electricity Transmission: Updated Regulatory Impact Assessment, March 2006.*

Presented costs and benefits of 4 policy options - the unlicensed/licensed exempt approach; extension of the current onshore regime to offshore; extension of the current onshore regime offshore with cross-subsidisation with other onshore users; and a licensed merchant approach.

*URN 06/1953 Licensing Offshore Electricity Transmission - A joint Ofgem/DTI Consultation: Partial Regulatory Impact Assessment, November 2006*

Assessed options for the scope and allocation of OFTO licences – non-exclusive licences; exclusive licences; and ‘do nothing’.

*URN 07/633 Licensing Offshore Electricity Transmission - A joint Ofgem/DTI Consultation: Updated Regulatory Impact Assessment, March 2007*

Presented costs and benefits of exclusive licences and non-exclusive licences and other costs and benefits of implementing and monitoring a regulatory regime

*URN 07/709 Regulation of Offshore Electricity Distribution: Final Regulatory Impact Assessment - A Class Exemption for Offshore Electricity Distribution, March 2007*

Assessed 3 options: extending the class exemption to apply to offshore distributors; establish an offshore distribution regulatory regime; and ‘do nothing’

*URN 07/1097 Offshore Electricity Transmission – A joint Ofgem/BERR Policy Statement: Impact Assessment, July 2007*

Assessed policy and tender process proposals and licence/code modifications

*URN 08/547 Offshore Electricity Transmission – A joint Ofgem/BERR Policy Statement: Updated Impact Assessment, January 2008*

Assessed updated policy and tender process proposals and licence/code modifications

*URN 08/731 Offshore Electricity Transmission – A joint Ofgem/BERR Regulatory Policy update: Impact Assessment, June 2008*

Assessed updated policy proposals and licence/code modifications

*URN 08/1398 Offshore Electricity Transmission – A further joint Ofgem/DECC Regulatory Policy update: Impact Assessment, November 2008*

Assessed updated policy proposals and licence/code modifications

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<sup>28</sup> <http://www.berr.gov.uk/energy/sources/renewables/policy/offshore-transmission/consultations/page42095.html>

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