Title:	Impact Assessment (IA)
Extension of the enduring offshore transmission regime to include the option of a generator building assets, with a competitive tender transferring assets to OFTO	**IA No:** DECC00012
	Date: 26/08/2010
	Stage: Consultation
Lead department or agency: Department of Energy and Climate Change	**Source of intervention:** Domestic
	Type of measure: Secondary legislation
Other departments or agencies: Ofgem	**Contact for enquiries:** paul.hawker@decc.gsi.gov.uk bernabe.sancheznaffziger@decc.gsi.gov.uk

Summary: Intervention and Options

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

Offshore wind is expected to play a key role in helping the UK to meet its 2020 renewable energy targets. Offshore transmission represents a significant component of the total cost of offshore wind generation, with the estimated capital cost to connect 50GW of offshore wind generation capacity to the National Electricity Transmission System being in excess of £20 billion.

What are the policy objectives and the intended effects?

Ofgem and DECC are consulting on extending the flexibility in the enduring offshore transmission regime to include the option of a generator building its own transmission assets, with a competitive tender determining the Offshore Transmission Owner (OFTO) to whom the assets will be transferred. This would increase the flexibility of the proposed enduring offshore transmission regime. This impact assessment estimates that the additional costs and benefits associated with the new option, over and above those already estimated for the OFTO build regime, are minimal. There are, however, differences in the allocation of risks (and costs associated with them) between different stakeholders (consumers, OFTOs and offshore wind generators) that arise as a result of the new option, with potential financing cost savings.

What policy options have been considered? Please justify preferred option (further details in Evidence Base)

The policy option under consideration is to provide the option of a generator building the transmission assets within the offshore transmission regime. During the period of the generator undertaking construction, Ofgem would run a competitive tender to select a party to be appointed as an OFTO. Following transfer of the transmission system from the generator developer to the OFTO, the OFTO would receive a 20 year revenue stream from the National Electricity Transmission System Operator (NETSO).

Providing this option would allow the different preferences of projects to be reflected in the regime and might lead to a better allocation of risk and lower associated financing costs.

When will the policy be reviewed to establish its impact and the extent to which the policy objectives have been achieved?	It will be reviewed 12/2015
Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?	Yes

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: 26 August 2010***

Summary: Analysis and Evidence — Policy Option 1

Description: Enduring offshore transmission generator-build option

Price Base Year 2010	PV Base Year 2010	Time Period Years 20	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	**High:** Optional	**Best Estimate: -0.45**

COSTS (£m)	**Total Transition** (Constant Price) **2** Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Cost** (Present Value)
Low	Optional	Optional	**Optional**
High	Optional	Optional	**Optional**
Best Estimate	0.45	0	**0.45**

Description and scale of key monetised costs by 'main affected groups'

The March 2009 IA estimated the costs of delivering the OFTO regime at £305m over the next 20 years. Beyond a small incremental rise in the costs to Ofgem and DECC in developing the generator build option (£450k), the new generator build option will be accommodated within the previously estimated costs of the enduring OFTO regime.

Other key non-monetised costs by 'main affected groups'

With the generator build option, offshore wind developers could bear the financing cost resulting from taking on the construction of an asset base up to 25% larger (during the construction phase only) and the risk of delayed completion of transmission assets away from the OFTOs. These costs are offset by the non-monetised benefits below.

BENEFITS (£m)	**Total Transition** (Constant Price) Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Benefit** (Present Value)
Low	Optional	Optional	**Optional**
High	Optional	Optional	**Optional**
Best Estimate	0	0	**0**

Description and scale of key monetised benefits by 'main affected groups'

None. The March 2009 IA estimated the benefits of the OFTO regime at between £763m and £1.7 billion over the next 20 years when compared to unregulated generator construction of their own offshore transmission assets. The new generator build option is not expected to lead to any additional quantifiable benefits over and above those of the OFTO enduring regime as previously proposed.

Other key non-monetised benefits by 'main affected groups'

The new option allows generators to choose whether to control delivery risk themselves (by undertaking construction of the transmission assets), or have an OFTO manage construction of the transmission assets. This choice will be dependent on the generator's view on which party is best able to manage that risk (i.e it or the OFTO). This may lead to a better allocation of risks across the project, thereby reducing overall financing costs.

Key assumptions/sensitivities/risks **Discount rate (%)** 3.5%

Offsetting transfers of risk are assumed between consumers, OFTOs and generators for the risk of delayed connections and consequential stranded assets. No assumptions are made on the potential duplication of costs between generators and OFTOs, or the transfer of risk of transmission failure.

Impact on admin burden (AB) (£m):			**Impact on policy cost savings (£m):**	**In scope**
New AB:	**AB savings:**	**Net:**	**Policy cost savings:**	Yes

Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?			GB and Renewable Energy Zone		
From what date will the policy be implemented?			2011		
Which organisation(s) will enforce the policy?			DECC, Ofgem, EC		
What is the annual change in enforcement cost (£m)?			0		
Does enforcement comply with Hampton principles?			Yes		
Does implementation go beyond minimum EU requirements?			No		
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)			**Traded:**	**Non-traded:**	
Does the proposal have an impact on competition?			No		
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?			**Costs:**	**Benefits:**	
Annual cost (£m) per organisation (excl. Transition) (Constant Price)	**Micro**	**< 20**	**Small**	**Medium**	**Large**
Are any of these organisations exempt?	No	No	No	No	No

Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on…?	**Impact**	**Page ref within IA**
Statutory equality duties[1] Statutory Equality Duties Impact Test guidance	No	8
Economic impacts		
Competition Competition Assessment Impact Test guidance	No	8
Small firms Small Firms Impact Test guidance	No	8
Environmental impacts		
Greenhouse gas assessment Greenhouse Gas Assessment Impact Test guidance	No	8
Wider environmental issues Wider Environmental Issues Impact Test guidance	No	8
Social impacts		
Health and well-being Health and Well-being Impact Test guidance	No	8
Human rights Human Rights Impact Test guidance	No	8
Justice system Justice Impact Test guidance	No	8
Rural proofing Rural Proofing Impact Test guidance	No	8
Sustainable development Sustainable Development Impact Test guidance	No	8

[1] Race, disability and gender Impact assessments are statutory requirements for relevant policies. Equality statutory requirements will be expanded 2011, once the Equality Bill comes into force. Statutory equality duties part of the Equality Bill apply to GB only. The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

Evidence Base (for summary sheets) – Notes

Use this space to set out the relevant references, evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Please fill in **References** section.

References

Include the links to relevant legislation and publications, such as public impact assessment of earlier stages (e.g. Consultation, Final, Enactment).

No.	Legislation or publication
1	March 2009 Offshore Transmission Impact Assessment http://www.berr.gov.uk/files/file50576.pdf
2	August 2010 Offshore Transmission Enduring Regime Consultation http://www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/network/grid_inv/grid_inv.aspx
3	
4	

+ Add another row

Evidence Base

Ensure that the information in this section provides clear evidence of the information provided in the summary pages of this form (recommended maximum of 30 pages). Complete the **Annual profile of monetised costs and benefits** (transition and recurring) below over the life of the preferred policy (use the spreadsheet attached if the period is longer than 10 years).

The spreadsheet also contains an emission changes table that you will need to fill in if your measure has an impact on greenhouse gas emissions.

Annual profile of monetised costs and benefits* - (£m) constant prices

	Y_0	Y_1	Y_2	Y_3	Y_4	Y_5	Y_6	Y_7	Y_8	Y_9
Transition costs										
Annual recurring cost										
Total annual costs										
Transition benefits										
Annual recurring benefits										
Total annual benefits										

* For non-monetised benefits please see summary pages and main evidence base section

Evidence Base (for summary sheets)

Purpose

DECC and Ofgem are consulting on extending the enduring offshore transmission regime to include the option of a generator building assets, with a competitive tender determining the Offshore Transmission Owner (OFTO) to whom the assets will be transferred. This would increase the flexibility of the OFTO regime approved in 2009, which envisaged a tender only appointing an OFTO to build, own and maintain the asset.

This impact assessment (IA) estimates the additional costs and benefits associated with the new option, over and above those already estimated for the OFTO build regime. These were estimated in the March 2009 IA. It also summarises the differences in the allocation of risks (and costs associated with them) between different stakeholders that arise as a result of the new option. Finally, Annex 2 provides further evidence of the benefits of competitive tendering which have come to light since the publication of the March 2009 IA for the enduring OFTO regime, which incorporates some of the latest evidence from the first transitional tender round.

Background: the OFTO build regime

Offshore wind will play an important part in meeting the Government's renewable energy and climate change targets and improving energy security by 2020 and towards 2050. However the successful delivery of offshore generation requires the timely delivery of fit-for-purpose infrastructure to transmit power to customers.

Ofgem and the Government have developed a regulatory regime for offshore transmission to provide a framework to encourage the new investment needed to deliver this infrastructure. The approach that has been adopted differs significantly from the onshore regulation of electricity networks, in that the licensed right to (build), own and operate the offshore transmission assets will be awarded on the basis of a competitive tender process, run by Ofgem.

The enduring regime for offshore transmission applies to all offshore generation connecting to the onshore grid at 132kV and above, most notably Round 3 offshore wind projects. However, in order to prevent delay while the regime was being developed provisions were made in the new regime for transitional arrangements projects that were sufficiently advanced. These arrangements involve the construction of connections by the offshore generators, followed by an Ofgem-run competitive tender to appoint an OFTO to adopt the assets on completion and then operate and maintain them for 20 years paid by the generator through annual charges.

In June 2009, following extensive consultation by Ofgem and DECC, the then Secretary of State for Energy and Climate Change commenced powers under the Energy Acts of 2004 and 2008. This made modifications to the industry codes and licences for the purpose of offshore transmission ("Go-Active") and also enabled Ofgem to identify OFTOs through competitive arrangements. At Go-Active, the previous Secretary of State also approved Tender Regulations to enable Ofgem to determine on a competitive basis those persons to whom an offshore transmission licence is to be granted. On 23 July 2009, Ofgem E-Serve commenced the first transitional tender round for the transmission assets for 9 offshore wind projects, with transmission assets worth £1.1 billion. In July 2010 the Secretary of State commenced remaining statutory powers in the Energy Acts 2004 and 2008 to establish the new offshore transmission regime for transitional projects. In August 2010 Ofgem announced preferred bidders for seven of the nine projects in the first transitional tender exercise. One project has proceeded to a Best and Final Offer stage and one will be subject to a revised Invitation to Tender stage.

While the first transitional tender round has been running, Ofgem E-serve consulted on a limited number of aspects of the enduring regime, within the framework put in place by DECC at Go Active. In December 2009 Ofgem E-serve issued a consultation on certain aspects of the enduring regulatory regime for offshore electricity transmission. The consultation stressed the key principles, of providing flexibility and facilitating the delivery of significant volumes of offshore generation, which informed the development of the proposals. It also set out minded-to positions in respect of key elements of the enduring regime. Among other things, it outlined the range of timings at which Ofgem considered it was appropriate to appoint an OFTO and, hence, the division of responsibility between a generator and an OFTO for the delivery of offshore transmission assets.

Generators unanimously raised the concern that the regime would increase risk for generators as they would have less control over the design and delivery of those assets. We have previously noted that there is a strong incentive for an OFTO to deliver on time, as an OFTO would not receive its full revenue entitlement until delivery was complete. This has shown to be the case in the PFI/PPP sector.

Generators also claimed that, at best, financiers of generation projects would respond to this perceived risk by levying a premium which could increase costs to consumers and, at worst, some offshore generation projects would not go ahead due to uncertainties about the identity and capability of the OFTO. They therefore proposed that generators be given the enduring option of constructing the offshore transmission assets themselves.

Summary of offshore transmission arrangements

Description	Details
March 2009 IA baseline: generator build and own offshore transmission assets	Offshore wind developer builds offshore transmission, owns it and maintains it through the life of the project. Offshore transmission exempt from on-shore transmission standards. Model not compliant with EU Third Package
Transitional arrangements	Offshore wind generator builds own offshore transmission assets. Ofgem runs a competitive tender to appoint an OFTO to own and maintain the completed assets. OFTO must ensure compliance with transmission standards. Full transmission ownership unbundling means the regime is compliant with the EU Third Package. Applies only to offshore wind projects sufficiently advanced as set out in Ofgem's tender regulations.
OFTO enduring regime: OFTO build and own offshore transmission assets	Ofgem grants OFTO licences to build and own offshore transmission assets for offshore wind projects via competitive tenders. OFTO has to comply with onshore transmission standards. Regime compliant with EU Third Package Applies to offshore wind projects not eligible for transitional arrangements
New option: generator build and OFTO own offshore transmission assets	Offshore wind generator builds own offshore transmission assets. Ofgem runs a competitive tender to appoint an OFTO to own and maintain the completed assets. Offshore Transmission assets built in compliance with transmission standards. Full transmission ownership unbundling means the regime is compliant with the EU Third Package. Applies to offshore wind projects not eligible for transitional arrangements

The new option: generator build

DECC and Ofgem are now consulting on extending the flexibility of the enduring regime to include the option of a generator building transmission assets. This option is different from the baseline in the March 2009 IA in that although the generator builds the transmission asset, once it is completed Ofgem would undertake a cost assessment on the transmission asset. This value would then form the basis for bids for a 20 year revenue stream (to be paid by the generator) under competitive tenders run by Ofgem to transfer the asset to an OFTO. The OFTO would then pay the generator the value of the assets and receive a 20 year revenue stream in return from the generator. The March 2009 IA baseline assumed that generators would build and maintain offshore transmission.

Whilst the new option could be seen merely as an extension of the current transitional arrangements to principally Round 3 and other future offshore wind projects, Ofgem and DECC see it as a materially different option with significant changes required. Two important areas in which changes might be expected with respect to the transitional regime are in the contractual interface, particularly between the generator building the transmission assets and the National Electricity Transmission System Operator, and the current 75% ex ante cost guarantee.

DECC and Ofgem acknowledge that introducing a 'generator build' option would represent a significant change in the enduring regime but would emphasise that this would be an option in addition to appointing an OFTO for the design and construction of transmission assets. DECC and Ofgem consider that providing parties with a choice about the roles and responsibilities which an OFTO will undertake may allow the different preferences of present and future offshore developers to be reflected and solutions which minimise risk and cost to be found. In our engagement with stakeholders on the 'generator build' option concerns have also been raised about the desirability, feasibility and potential consequences of the option. Through the forthcoming consultation we will gather views from across stakeholders to determine whether a 'generator build' option is appropriate and, if so, how it can best be designed and implemented.

Costs and benefits: new generator build option

Offshore wind generators are expected to be driven by commercial incentives to achieve value for money from their transmission investment. Two important reasons for this are that

(1) Ofgem undertakes a cost assessment and may disallow costs that which it deems have not been economically and efficiently incurred; and

(2) the level at which their offshore transmission charges are set will be determined by the cost of the investment, amongst other factors.

As a result we do not expect significant benefits or losses from competition if the generator build option was to be implemented. DECC and Ofgem are consulting on whether any further measures are required under the generator build option to ensure greater value from construction.

There is, a cost associated with developing the new option. The March 2009 estimated the total cost for Ofgem and DECC in developing the new regime to be £3.4m. Development of the new option does impose additional staffing, legal and consultancy costs, these are estimated to be around £450,000 (based on the cost of six full-time equivalent staff for six additional months, plus £250,000 of consultancy and legal costs based on the budgeted amount for similar policy processes recently undertaken by DECC).

While there will be an ongoing administrative cost of undertaking cost-assessments under the generator build option, this is likely to be offset by the reduced evaluation burden (i.e. technical evaluation will be less complex under generator build option than the OFTO build option). Under OFTO build, there is significant technical and design evaluation that would not have to be carried out under generator build.

There is also a reallocation of risk (and associated costs) between different parties, notably offshore wind generators, OFTOs and consumers. The key perceived risk for generators is the potential for delayed delivery of connections by an OFTO. The generator build option would result in control of this risk by generators which would be offset by lower risk faced by the OFTO. This risk transfer should also be reflected in generators' and OFTOs' financing costs.

Giving generators the option on whether to build themselves or let an OFTO take the construction risk should result in a better allocation of risk being delivered by the market, thereby potentially reducing overall financing costs. This potential benefit is highly uncertain and has not been monetised.

Some concerns have been raised about the ability of the offshore transmission regime to deliver a more integrated onshore and offshore network. However, we note that under both the OFTO Build and Generator Build options the NETSO will continue to have responsibility for coordinating the transmission investments in all cases. In addition, Round 3 offshore wind will proceed on the basis of large scale zonal developments which will provide incentives for greater coordination in development within the zone regardless of whether an OFTO build or generator build option is chosen. We therefore conclude that there would be no impact on coordinated development between the two options. The accompanying

consultation to this IA is seeking views on whether any further action is required within the offshore transmission regime to ensure the coordinated development of onshore and offshore networks.

Specific Impact Tests

No additional impacts are expected on competition, small firms, human rights, race equality, gender, disability, health, environment, legal aid, the judicial system, sustainable development or the rural economy beyond those outlined in the March 2009 IA.

Annexes

Annex 1 should be used to set out the Post Implementation Review Plan as detailed below. Further annexes may be added where the Specific Impact Tests yield information relevant to an overall understanding of policy options.

Annex 1: Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

Basis of the review: [The basis of the review could be statutory (forming part of the legislation), it could be to review existing policy or there could be a political commitment to review];
Review objective: [Is it intended as a proportionate check that regulation is operating as expected to tackle the problem of concern?; or as a wider exploration of the policy approach taken?; or as a link from policy objective to outcome?]
Review approach and rationale: [e.g. describe here the review approach (in-depth evaluation, scope review of monitoring data, scan of stakeholder views, etc.) and the rationale that made choosing such an approach]
Baseline: [The current (baseline) position against which the change introduced by the legislation can be measured]
Success criteria: [Criteria showing achievement of the policy objectives as set out in the final impact assessment; criteria for modifying or replacing the policy if it does not achieve its objectives]
Monitoring information arrangements: [Provide further details of the planned/existing arrangements in place that will allow a systematic collection systematic collection of monitoring information for future policy review]
Reasons for not planning a PIR: Ongoing monitoring. Evidence will become available with each tender round.

Annex 2 – Further evidence of the benefits of competitive tendering

Since the publication of the March 2009 IA, new evidence on costs and benefits has become available from the first transitional tender round. Amongst other things, this evidence shows that the competitive OFTO regime is capable of delivering substantial savings when compared to what could be expected from an extension of the regulated onshore monopoly. Even though extending the regulated onshore monopoly was not an option considered in the March 2009 IA, this information provides additional evidence in support of the decision to opt for the competitive delivery of offshore transmission. For the sake of transparency the findings are presented below.

Benefits

The competitive approach to granting offshore transmission licences is expected to have a number of advantages, including encouraging innovation and new entry to the market. This was a key benefit cited in the Government's IA for the offshore regime (published in March 2009). The IA was predicated on OFTO licences being granted to companies who would design, finance and construct transmission infrastructure, with two rounds of transitional tenders to deal with a limited number of projects who had either constructed, were constructing or taking steps toward constructing.

The following areas will benefit from the competitive offshore regime:

(i) Finance. The total offshore transmission costs will rise beyond £20 billion should more than 50GW of offshore wind materialise. Government believes that opening up this market to greater competition will attract a wider range of investors compared to onshore arrangements and generators building and operating the transmission assets themselves. Ofgem has advised DECC that the first transitional tender round shows strong evidence of investment appetite and new sources of finance.

(ii) Services. There is already evidence of companies setting themselves up to provide specialist services relating to offshore transmission, on the back of the regime. For instance, prospective OFTOs are bringing together a range of service providers and are considering new commercial arrangements for service provision. This specialism is also demonstrated by Transmission Capital, one of the preferred bidders in current round, providing advisory services to The Crown Estate and some of the Round 3 developers. These benefits would not be captured under onshore arrangements or generators building and operating the transmission assets themselves

(iii) Manufacture. Ofgem and the Office of Renewable Energy Deployment have seen interest across the supply chain, both within and outside Europe as a result of the regime. Several manufacturers are interested in setting up a UK base in order to make themselves more competitive with the current European suppliers for both the UK and European market. In addition, reducing the reliance on a small number of manufacturers will be important to ensuring secure supplies.

(iv) Contract management. The enduring regime provides the opportunity for entry by companies with a competitive advantage in procurement practice and management of similar large scale construction contracts. This opportunity would not be as extensive under onshore arrangements or generators building and operating the transmission assets themselves. This has the potential to drive prices down further.

(v) Avoided costs of regulation. The competitive approach will make savings through avoided regulatory costs compared to onshore arrangements. A 20-year revenue stream alleviates the costs faced by Ofgem and industry that would be caused by four five-yearly price controls (which are ultimately borne by consumers). Administratively, the burden of the tenders is initially greater than a regulatory review, particularly in the establishment phase, although tenders are less frequent and therefore costs are lower over the lifecycle of the transmission assets involved. In addition, tender costs are recovered immediately through each tender exercise from participants in the process. Moreover, the competitive process creates a framework in which cost savings and potential efficiency benefits are revealed and passed on as benefits for consumers early. The ongoing process of tenders also encourages innovation to become best practice and create further incentives to continue to innovate.

Quantifying the benefits from first round offshore tenders compared to onshore transmission

Ofgem has also estimated the benefits of competition for offshore transmission assets compared to onshore TO regulated revenues.

They compared allowed revenues from the last onshore transmission price control (TPCR4) as a proportion of the gross asset value to that of revenues bid in for the first round of tenders. This analysis reveals that for offshore transmission, required revenues are around 13% lower than revenues allowed onshore. On assets worth £1.1 billion, (i.e. the total value of assets tendered in the first round of tenders), this represents a saving of around £18m per annum, or around £350m over the 20 year revenue stream period on a present value basis. It is possible that the winning bids will be lower, which could increase these benefits towards £20m per annum. This will be known once licences are granted.

DECC has applied this saving of 13% to the discounted (at the social rate of 3.5%) stream of OFTO revenues expected to 2030 for a range of offshore transmission asset values (£20 billion, £15 billion and £12 billion). This would suggest potential savings between £1.3 billion (for an asset base of £12 billion by 2030) and £2.2 billion (for an asset base of £20 billion) from competition offshore compared to onshore revenues, as shown in the chart below.