



WWF *for a living planet*

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WWF-UK response to the consultation: Offshore Electricity Transmission – a joint Ofgem/DECC Regulatory Policy Update.

Introduction

WWF-UK welcomes the opportunity to respond to the latest consultation on the regulator and government's offshore electricity transmission regulatory policy proposals. We hope you find our response and recommendations of use. In order for the UK to address climate change effectively it is crucial the UK makes real and substantial cuts in carbon dioxide (CO₂) emissions without delay in the most sustainable and equitable way.

In relation to the new UK Climate Change Act, on December 1st 2008 the Committee on Climate Change strongly advised the government to ensure the UK reduces emissions from 1990 levels by 34-42% by 2020. This means making a major and swift switch from polluting fossil fuels we use today to the diverse range of energy efficiency measures and renewable energy sources, such as a massive drives for offshore wind, micro-generation and community energy starting now, as well as simultaneously developing wave power. This will require a major increase in the much needed new investment in UK offshore and onshore electricity transmission networks in order to ensure timely connection and transmission of electricity generated by new marine renewables to the areas of use, onshore. The so-called 'Marshall Plan' for a renewables revolution as called for by Prime Minister Gordon Brown both in December 2007¹ and June 2008².

The introduction of the Marine and Coastal Access Bill into Parliament is also very welcome, as this will introduce a much needed marine spatial planning system, a Marine Policy Statement and a new Marine Management Organisation in order to speed up the delivery of offshore renewables. This Bill should enable the development of offshore activities to occur within a proper offshore planning framework that takes into account the needs of the marine environment and has duties towards sustainable development.

We also strongly support the new government commitment to deliver the UK's fair share of the EU renewable energy target for 2020. **In doing so, like any other new large-scale developments, government must also respect and address any wider concerns over environmental sustainability.** It is therefore vitally important that strong sustainability criteria are set and adhered to in relation to the development of offshore generation and transmission networks, and the most immediate areas where this must be addressed are related to the life-cycle impacts of biomass and the impacts of harnessing tidal energy in the Severn estuary.

Thus, we believe the over-riding priority for government policy must be to deliver on the new UK energy efficiency and renewable energy targets from the EU, because in doing so, it will help ensure

1 <http://www.number10.gov.uk/Page13791>

2 <http://www.number10.gov.uk/Page16164>

that the key objectives on energy security, energy independence and climate change mitigation are achieved. While there may be some significant costs involved initially, an efficient energy system powered by renewables will be less exposed to shocks in fossil fuel prices – and the shift to such a low carbon economy can be expected to yield huge benefits in terms of job creation and new opportunities for British businesses.

Main points raised in WWF-UK's response

The UK is very fortunate to have some of the best potential renewable energy resources in the world, but as yet these remain hugely untapped and so are there on our 'doorstep' for immediate use. For example, the UK has the best wave energy resource in the EU, with 50TWh/year offshore (equivalent to 15% of UK electricity demand), 7.8TWh/year in near-shore waters and 0.2TWh/year on the shoreline.

In order to deliver the massive drives in offshore wind, micro-generation and wave power, WWF-UK is of the strong opinion that government must substantially increase its policy efforts and investment in R&D funding, deployment, connection and transmission of electricity from marine renewables (not to mention the significant changes that are also needed in energy demand reduction and renewable heat/gas in order to meet the new 2020 targets).

Notably, WWF-UK believes government must make huge investment in a new grid network a priority, so that the UK onshore and offshore transmission grid is fit for purpose in the 21st century, as the existing grid and networks were built in the middle of the last century for the connection of only a few large centralised power plants onshore and far from the major cities due to the pollution risk of coal-fired and nuclear power stations.

We are pleased to see that the 2008 consultation documents have provided a clear outline of the steps required to implement the new arrangements in preparation for 'Go-Active' in April 2009. We believe that implementation in the timescales given is essential to provide certainty in the development of Round 1 and Round 2 offshore generation projects (of which 8GW have already awarded leases by the Crown Estate). Given that policy proposals are based upon Round 1 and Round 2 experience of radial networks with a single connection to the onshore network, it is important the arrangements are reviewed against the type of development planned under Round 3.

National Grid:

WWF-UK understands the National Grid performs licensed electricity transmission activities in the UK under the National Grid Electricity Transmission (NGET) licence and the licensed area for NGET owner activities is England and Wales, whereas their System Operator obligations cover Great Britain. Under current proposals from Ofgem this role will extend to the new offshore transmission developments.

We note that NGET has stated it anticipates the first Round 3 projects will start to generate in 2018 and it recommends the assessment and review of the proposed Offshore Electricity Transmission arrangements in the context of the anticipated Round 3 are taken forward in a co-ordinated programme outside the scope of the current project.

We also note the 2008 consultations have proposed the introduction of a prohibition on NGET forming Offshore Transmission Owner (OFTO) subsidiary companies, with Ofgem's reasons being due to monopoly/anti-competition concerns (and EU unbundling requirements). If this is taken forward, we seek assurances that all parties/companies are treated consistently with this principle.

Since the UK offshore electricity transmission regulatory policy regime was first consulted on in 2005, one of the main supporting benefits for the price regulated approach, as opposed to the merchant approach, was the potential for a share of the costs of the onshore substation and offshore platforms to be socialised across the wider charging base, to a similar level as onshore substation assets. A move away from the onshore charging arrangements will undermine the basic principle of support for the price-regulated approach. Also, uncertainty around charging introduces additional regulatory risk to existing and future projects. Potential investors' perception of this risk may cause undue concern, resulting in

funding delays or even withdrawals at this critical phase. We would therefore ask for the regulator, Ofgem, and the government to clarify its thinking and intentions on this point as soon as possible.

Poyry findings:

In 2008, a group of offshore wind developers commissioned Pöyry Energy Consulting to conduct a review³ of the proposals relating to the regulatory regime set out in Ofgem and government's update documents, and concluded the following;

- the proposals are likely to encourage a series of parallel radial offshore-onshore connections which may be low cost when considered individually but inefficient and costly when considered in the context of the development of the overall offshore transmission infrastructure;*
- the overall process is very complex and lengthy, creating potential for significant risk and delay for project developers, thereby reducing the incentive to initiate projects; and*
- the proposed regime frustrates/removes the commercial incentives to develop an offshore generation project and to become an Offshore Transmission Owner.*

Thus, according to Poyry's assessment, the proposed policy regime does not create a framework which will best encourage the connection of significant amounts of renewable generation or the development of efficient and economic offshore transmission systems overall.

WWF-UK notes with interest the main findings from this study and we hope these are listened to and addressed by Ofgem and government with urgency, so that all involved can deliver on the government's plans (announced by BERR in late 2007) for 33GW of offshore wind in UK waters by 2020. This has been further developed in the Renewable Energy Strategy (RES) consultation led by BERR over the summer in 2008. As described in the consultation, a large increase in offshore wind will require a large increase in offshore transmission. The regulatory regime proposals appear to see this as being delivered by point to point, radial connections and a strategic transmission grid will be provided by the use of the tender window and by industry collaboration, but it still remains unclear how the benefits of collaboration will be delivered. Point 3 of paragraph 1.23 on page 20 of the November 2008 consultation paper goes some of the way in clarifying, but more explanation is needed.

The indication from the Crown Estate that future offshore sites will be awarded in zones, offers an opportunity for some encouraging collaboration. However, WWF-UK is concerned as projects will be run by competing companies that will most likely have different delivery timetables and aims. There is also a concern that if one party leaves a joint venture or an individual project is delayed then any grid collaboration project will also collapse and projects could be delayed by several years. Due to the urgency of tackling climate change and the new 2020 renewable energy targets, time is not something the UK, nor the world, has the luxury of.

Offshore transmission networks and super grids:

Studies such as the 'East Coast Transmission Network: Technical Feasibility Study'⁴ and the work of the Electricity Network Strategy Group have examined the possibility of offshore transmission networks. While this option remains a possibility and could deliver benefits to the speed and cost of project delivery, as well as address onshore capacity issues, the current policy proposals have not been set up to deliver this type of project. We would ask for further information on the mechanism that the Government would use to support offshore transmission *networks*, if they were developed.

Similarly there is a potential benefit to renewable energy projects across Europe by incorporating interconnection across the North Sea and/or Irish Sea with the expansion in offshore transmission – and potential EU/North Africa super-grid ambitions. We feel that the potential benefits of offshore networks

³ <http://www.ofgem.gov.uk/Networks/offtrans/pdc/cdr/cons2008/Documents1/Poyry's%20response.pdf>

⁴ <http://www.thecrownestate.co.uk/newscontent/92-connectivity-offshore-power-transmission-2.htm>

and interconnections highlight the need for a more strategic approach to parts of the offshore transmission system. WWF-UK therefore strongly recommends that Ofgem and government actively pursue these options as well and that they seriously consider additional measures beyond the current policy proposals to promote them.

In relation to this, please could Ofgem and government confirm that the current planned investment in onshore grid will provide adequate transmission capacity for offshore wind electricity, as well as new onshore wind, gas-fired stations and replacing existing old transmission infrastructure? Concerns have been raised that the onshore transmission network will not be ready in time to accommodate substantial growth in offshore wind and will not have compatible investment triggers and time lines. This creates a risk that another queue will form where the offshore transmission reaches the land.

We would like to see more incentives for National Grid to carry out strategic investment to be able to quickly and efficiently deliver generation to the network. As such, WWF-UK believes whilst it is important that developers take on the responsibilities and commitments associated with infrastructure development, it is equally essential that National Grid take a more proactive role in reinforcement planning of the grid.

Indeed the report 'East Coast Transmission Network: Technical Feasibility Study' concluded that such a project - an offshore network along the east coast of Great Britain linking in Shetland and Orkney - is technically feasible and could indeed be a success, allowing new renewable energy projects to connect to the national grid. However, there would still need to be reinforcements carried out to the onshore transmission network by NGET.

Transmission Infrastructure in the Marine Environment

With the introduction of the UK Marine and Coastal Access Bill and forthcoming Scottish Marine Bill, the establishment of a specialist marine body, the Marine Management Organisation (MMO), WWF-UK believes that development of an offshore transmission network must be progressed with the protection and sustainable development of the marine environment clearly in mind. For this purpose, it is our view that the MMO must be involved in the regulatory regime for the establishment, installation and management of offshore transmission networks. It is noted that the Bill will require a licence to be obtained for, amongst other things, the construction, alteration or improvement of any works within the UK marine licensing area, either in or over the sea, or on or under the seabed, which presumably will include installation of any offshore transmission infrastructure. As the MMO will become the relevant licensing authority for this purpose, we consider it crucial that the MMO is involved, at the very least as a consultee, in the regulatory process for granting of transmission licences offshore. We consider that this will enable a balanced approach, ensuring that proper consideration is given to the impacts of such licences on the marine environment.

WWF-UK asks whether Ofgem could clarify whether there is intended to be a role for the MMO within the regulation of offshore transmission licences and if so, what that role will be. Further, considering that the 'Go Active' date is likely to be before commencement of the Marine and Coastal Access Act and the establishment of the MMO, is it intended that there will be transitional arrangements to ensure that the impacts on the marine environment are properly considered?

The Marine and Coastal Access Bill will also introduce a Marine Policy Statement and marine plans, which will guide policy in the marine environment. WWF-UK seeks a close relationship between the National Policy Statements (such as the NPS on renewables) and this Marine Policy Statement. WWF-UK believes that planning offshore sites with transmission systems to land should be facilitated and co-ordinated by the MMO under the proposed Marine Policy Statement and marine plans.

Whilst WWF-UK expresses its support for the expansion of the electricity transmission network to allow for efficient connection to offshore renewables, we submit that where this network will encroach upon and affect internationally protected areas this must be achieved in compliance with the UK's obligations under European Directives, such as the Habitats Directive. WWF-UK encourages the government to undertake any assessment of a licensable area and granting of licences with a view to minimising the potential impacts on such protected areas and the marine environment in general. With this in mind, WWF-UK asks whether there is potential for further sustainability and environmental assessments to be

incorporated into the regulatory regime, such as in the 20 year review process and the performance bond requirements. As conditions within the marine environment are predisposed to change, particularly in the era of climate change, we consider that there should be a mechanism in place which allows for review of the impacts of a licence on the marine environment after the passing of time and for appropriate conditions and/or alterations to the licence to be made. We would also seek assurances that when a licence is revoked, appropriate action is taken to ensure that removal of any infrastructure is undertaken with minimal impact on the marine environment.

Conclusions

In summary, WWF-UK welcomes the opening of recent reviews of both the onshore and offshore electricity transmission policy regimes by Ofgem and government in 2008, as most changes would be an improvement from the current arrangements whereby transmission companies tend to wait for new generators to make connection applications and sign contracts before starting to invest in the grid. This has led to bottlenecks and constraints on the system as major new transmission lines can take four to ten years to gain planning consent and be completed.

We welcome the early signals from Ofgem that network companies will be able to earn a higher return for taking on some of the risk of ensuring that new transmission capacity is ready when new generation is ready to connect. As the task at hand couldn't be clearer - the UK needs to act big and fast with respect to renewable energy deployment, as it is third from the bottom of the European league table for renewables, despite being one of the wealthiest economies in Europe with some of the most abundant renewable resources. Only Malta and Luxembourg are below the UK in this ranking, and this is particularly embarrassing for the UK government as it claims it is leading the world in tackling climate change.

Thus, in addition to achieving a step-change in UK energy efficiency, reduction in final energy demand and increase renewables deployment, WWF-UK calls on government and Ofgem to **immediately mandate priority access to the grid for renewables ahead of any coal and nuclear power plants**, and by this we mean in terms of both physical connection to the grid and also selling of electricity on the grid.

WWF-UK also strongly recommends that Ofgem, government, transmission companies and generators ensure new robust regulation and plans are put in place swiftly so that the necessary new electricity transmission infrastructure is built in the right places in and around the UK, so more renewables generators can connect as soon as ready. However, **in doing so, government must also respect and address any wider concerns over environmental sustainability, ensuring compliance with international obligations related to protected sites and providing mechanisms for periodic review and mitigation of detrimental impacts on the marine environment**. The new onshore and offshore transmission policy framework is critical for the UK to pull itself out of recession and into a green economy whilst achieving its new minimum 2020 renewable energy targets.