

Ofgem
**Extending Competition in Electricity Transmission: Tender models
and market offering consultation**
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Name and Position: Alice Collier, Policy Officer.

Name of Organisation: The RSPB

Address: The Lodge, Sandy, Bedfordshire SG19 2DL.

Tel: 01767 693158.

E-mail: alice.collier@rspb.org.uk

SUMMARY

- It is clear that grid development will be necessary to facilitate the transition to a 100% low carbon energy future that is necessary to tackle climate change.
- However, the development of transmission lines is a risk to wildlife and habitats and so it needs to be progressed in an environmentally sensitive manner.
- Therefore, as part of the tendering process for the competitive allocation of transmission owners, we consider that Ofgem has a key role to play in ensuring that companies sufficiently understand and adequately mitigate environmental impacts in the delivery of grid assets.
- We support Ofgem's intention to introduce financial and reputational incentives to reinforce the ongoing obligations of an appointed competitively allocated transmission operator (CATO).
- Finally we strongly support Ofgem's encouragement of variant bids which involve innovation to reduce environmental impact and/or reduce transmission losses. These wider benefits should be considered beneficial to the consumer who will also be impacted by the wider impacts of climate change and loss of biodiversity, should grid development not be progressed in the most sustainable way possible to deliver a low carbon future.

We set out our full response below.

OVERVIEW

The RSPB welcomes Ofgem's 'Extending Competition in Electricity Transmission: Tender models and market offering' consultation, and provides below our views on this issue. With over 1.1 million members, the RSPB is one of the UK's leading nature conservation organisations. We are also a founding member of the Renewables Grid Initiative (RGI), a unique collaboration of environmental NGOs and transmission system operators from across Europe focused on promoting transparent, environmentally sensitive grid development to enable the further steady growth of renewable energy and the energy transition. Together with our partners, we work to protect threatened birds and wildlife so our towns, coast and countryside will be diverse and wonderful places to live once again.

1. Climate change is one of the greatest long-term threats to wildlife. One in six species is at risk of extinction by 2100 under business as usual scenarios. The RSPB's work on the impacts of climate change on wildlife (see our recent [science review](#)¹), highlights the fact that we are already seeing significant impacts. Future projections clearly show us that, overall, wildlife will face a much tougher environment, and big challenges, as a result of changing climate. Two other recent reports with similar findings are Living With Environmental Change's [Biodiversity Climate Change Impacts Report Card 2015](#)², focusing on UK biodiversity, and BirdLife International's [The Messengers](#)³, which looks at birds at the global scale. All this highlights a pressing need to sustainably reduce our greenhouse gas emissions to avoid levels of climate change that seriously affect wildlife.
2. In doing so, it is vital we ensure that the urgent transition to a low carbon economy is in harmony with nature. Our new report [The RSPB's 2050 Energy Vision](#)⁴ (published 24 May 2016) highlights that the transition to 100% low carbon electricity will require significant investment in new and upgraded connections. We therefore support grid development under certain conditions:
 - it serves the transition to a stable global climate,
 - the total amount of new network infrastructure needed is minimised through ambitious energy saving, and
 - demand management and the grids integrate more small scale decentralised renewables.
3. The development of transmission lines presents a particular risk to birds and their habitats and this must not be overlooked. The [State of Nature 2016](#) report published 14 September reveals that 56 per cent of the species studied have declined over recent decades. More than one in ten of all the species assessed are under threat of disappearing from our shores altogether. We therefore need to be ensuring that we are doing everything we can to avoid further impacts on our wildlife. The main risks of transmission lines for birds in particular are: collision with the lines (in particular with the highest 'earth' wire, though electrocution is rare), displacement of species (for example through loss of useable feeding grounds), and habitat loss and modification. We therefore consider that necessary grid development should be

¹ http://www.rspb.org.uk/Images/natureofclimatechange_tcm9-409709.pdf

² <http://www.nerc.ac.uk/research/partnerships/lwec/products/report-cards/biodiversity/>

³ <http://climatechange.birdlife.org/>

⁴ <http://www.rspb.org.uk/energyfutures>

designed and routed to minimise potential impact on habitats and species (see below for further detail). As part of the BESTGRID project, RSPB produced the [Protecting nature in Power Grid Planning Handbook](#) which provides insight into some of the common issues as well as information on how transmission operators and NGOs can work better together to not only minimise impact on nature and wildlife, but also provide environmental benefits through habitat enhancement.

4. Companies with existing experience of developing transmission assets may be familiar with the environmental protection issues associated with grid development but other companies may not. We are therefore pleased to see that Ofgem will require potential bidders to demonstrate that they have experience of having consulted and engaged stakeholders appropriately and mitigating environmental impact at the enhanced pre-qualification stage. However, it is not clear how Ofgem intends that companies will demonstrate this. We suggest that in order to ensure the evaluation is meaningful, the bidder should be required to provide reputable independent assessment of any evidence demonstrating that their stakeholder engagement was appropriate and environmental mitigations sufficient, not simply their own assessment of their performance.
5. We strongly support the proposals to provide financial and reputational incentives to promote good stakeholder engagement and environmental performance of the competitively allocated transmission operator (CATO) appointed. It must be ensured that the CATO process delivers best value for consumers both now *and* in the future, and this will involve sustainability of the ongoing operation of the asset, not just the construction. Furthermore, our work on the BESTGRID project has demonstrated that good stakeholder engagement can help to reduce public opposition to grid development. Timely and appropriate grid network development (both enhancements and new lines) will enable a smooth transition to 100% low carbon energy and working constructively with stakeholders can help address potential conflicts that could have been avoided, saving both time and money for all involved.
6. More detail on these points is provided in our specific answers to the consultation questions below.

RESPONSE TO QUESTIONS

Chapter 2

Question 1: What do you think about our proposed approach to tender evaluation? Are any elements missing that we to look at?

We support the environmental considerations that Ofgem has taken into account in their proposals for the bidder evaluation process. However, we:

- **consider that the pass/fail evaluation proposed is insufficient to ensure a meaningful assessment** of the quality of a bidder's experience,
- **would like Ofgem to consider the impact of the design and technical specification on birds and habitats at the 'invitation to tender' stage, and**

- **consider that the quality** of design, technical specifications, and expected construction and operational management **with respect to environmental impact should be sufficiently weighted in the calculation of tender scores.**

We would appreciate clarification as to what evidence Ofgem would expect to see from the bidders when conducting the pass/fail evaluation at the pre-qualification stage. We consider that in *all* cases, whether previous experience is in the energy sector or not, bidders should be required to specifically demonstrate their experience of managing local stakeholders appropriately and mitigating environmental impacts, and that the quality of this experience should be taken into account. This would be necessary to ensure that Ofgem's evaluation of bidders' qualifications in this area are meaningful. If Ofgem considers that an assessment of the quality of the bidders' experience is not within its remit, another option could be to require bidders to provide a reputable independent assessment of any evidence demonstrating that their stakeholder engagement was appropriate and environmental mitigations sufficient. As with the process used for the annual Renewables Obligation Sustainability Reporting, an independent assessment would help provide assurance to Ofgem of the bidder's experience.

Given this, we support the proposal to require bidders at the 'outline proposals' stage to show a demonstrable understanding of the complexity and requirements of the project being tendered, including delivery against consents, design, and environmental and stakeholder management. We agree that it is important to ensure that bidders are capable of fully understanding the potential issues and their responsibilities.

As part of the 'invitation to tender' stage evaluation, we would like Ofgem to consider potential impacts on birds and surrounding habitats of design and technical specifications for the project submitted by prospective CATOs. The development of transmission lines is a risk to birds and their habitats. The main risks are collision of birds with the lines (in particular with the highest 'earth' wire, though electrocution is rare), displacement of species (for example through loss of useable feeding grounds), and habitat loss and modification. We therefore consider that necessary grid developments should be designed and routed to minimise potential impact on habitat and species. It is important to note that undergrounding of cables is not always the best option from an environmental perspective. Where new and existing transmission lines cannot avoid areas used by vulnerable birds, it is essential that visible bird deflectors are attached to the lines. Independent ornithological experts should be consulted on the priority locations and best designs of deflectors for the location and species present, especially when there are no appropriate guidelines. We are in the process of finalising an update to the Birdlife Europe 'Position on Birds and Powerlines' and would be happy to share this when it is finalised to assist with Ofgem's evaluation.

We consider that the quality of the design and technical specification, and expected construction and operational management, should be sufficiently weighted in the calculation of tender scores. The proposed weighting of cost against all other factors of 50:50 could risk insufficient consideration of the wider benefits of good design, construction and management of the asset. Ultimately we would expect that Ofgem refrain from offering the construction and operation of an asset to a bidder if they have not made clear efforts to avoid wildlife impacts.

Question 3: What do you think about our proposals for variant bids? Which areas are likely to lead to the largest benefits for consumers?

We are supportive of the proposal to encourage variant bids as we consider innovation, in particular in the area of mitigating environmental impact, important to ensure that new grid infrastructure is fit for the future.

- **We agree with the proposal that innovation for reducing environmental impact could include alternative low impact construction techniques, and reduction of transmission losses, and that addressing visual amenity would be beneficial.**
- We consider that **even greater benefits could be gained from encouraging** innovation around:
 - o **innovative design to avoid direct impact on species and also lower impact on the surrounding habitat** (see answer to question 2 for more detail), and
 - o proposals to go beyond mitigation and employ **innovative ways to enhance the biodiversity of the land impacted by the grid development,**
 - o **alternative routing to avoid adverse effects on wildlife** (where the project is at an early enough stage for there to be flexibility on this aspect).

As a society we should all be looking to utilise every opportunity that arises to improve the state of nature in the UK. The government's Natural Capital Committee pointed out that "The proper integration of natural capital into decision making at all levels is crucial to supporting and promoting future growth."⁵ The environment provides clean water, breathable air, supports biodiversity and regulates the climate, among other vital ecosystem services. Climate regulation in particular could help to reduce the impact of increasingly extreme weather patterns, thus reducing the need for consumers to spend on increased heating/cooling of their properties or damage to infrastructure.

These benefits however are not captured by the grid operators meaning there is little incentive beyond regulatory ones to protect the natural environment. By encouraging and evaluating bids primarily based on cost there is an even greater disconnect between what is good for society at large and the companies bidding for contracts. For this reason, efforts to encourage innovation in pylon design (as well as construction techniques) to minimise impact on habitats and wildlife would be hugely beneficial.

We would support in particular bids showing meaningful innovation to deliver the following four things:

1. Reducing transmission losses

Measures to reduce energy waste are critical to enable the UK to transition to 100% low carbon energy with the lowest ecological impact. Energy savings reduce the requirement for new energy infrastructure thereby helping to avoid associated impacts on wildlife. The benefits of course stretch beyond wildlife too. Reducing our total energy demand by ensuring that we waste less energy between the point of generation and consumption

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<http://nebula.wsimg.com/66000b802a5cab1425b1e05d9a716835?AccessKeyId=68F83A8E994328D64D3D&disposition=0&alloworigin=1>

would make it easier for the UK to achieve its 2050 carbon emission reduction targets, ensuring that energy is affordable over the long-term and contributing to a safer climate future.

2. Visual amenity

Innovation in this area can enhance public acceptability which we welcome. Grid development is needed in the UK to better adapt to the large quantities of distributed renewable generation sources coming online and better transfer this electricity to consumption centres. These grid developments need to be developed in a timely way and therefore innovation that could lessen public opposition is valuable.

3. Low ecological impact design and operation

We consider that innovative design both to avoid direct impact on species (see earlier point about collision and displacement risks for birds) and also to lower impact on the surrounding habitat should be encouraged. We are currently working with our Birdlife partners to finalise an update to the Birdlife Europe 'Position on Birds and Powerlines' which will include some guidelines on how to minimise impact on birds in particular, and would be happy to share this when it is finalised.

Additionally innovation could include proposals for how the bidder might go beyond mitigation and in fact enhance the biodiversity of the land impacted by the development. Through our work with RGI, we are aware of some interesting examples of biodiversity enhancement projects being implemented by TSOs such as Elia, RTE and 50Hertz in collaboration with NGOs including our Birdlife partners NABU (Nature and Biodiversity Conservation Union). Some of these initiatives are featured in the [Protecting nature in Power Grid Planning Handbook](#), and we believe implementation of similar approaches in UK grid network development would be beneficial.

4. Alternative routing

Whilst it is recognised that for the first round of the CATO model, only projects which have already received planning permission are to be tendered, we would like to highlight the importance of route selection in grid network development. To avoid adverse effect on wildlife, the route of new powerlines should follow existing infrastructure such as major roads and railways (bundling) as far as possible, with adjustments to routes to further protect nature if necessary. Where it is not feasible for new powerlines to follow existing infrastructure, the route should avoid designated sites and other important wildlife sites. Therefore, if the CATO model is used in the future for the tendering of projects that are at a much earlier stage of the planning process, Ofgem should encourage significant positive environmental outcomes by encouraging innovation in respect of the routing any new grid infrastructure as well.

Chapter 3

Question 1: What do you think about our proposed package of CATO incentives? Do you think we are missing anything?

We are pleased to see Ofgem is proposing to reinforce positive behaviour of the CATO once selected using a range of incentives. In particular **we consider that incentives for environmental outcomes and preventing delays to connections are essential** to ensuring the CATO operates the asset for best overall outcomes.

Incentives to prevent connection delay

In order to achieve a low carbon energy system by 2050 significant quantities of new, renewable generation need to be connecting into the grid. Issues connecting to the grid can cause problems for these projects and ultimately dissuade investment. Quicker deployment can be achieved by requiring CATOs to deliver a good quality service and not cause delays to generators' ability to connect to the grid. **A financial incentive is an appropriate and effective means of ensuring compliance** on this issue.

Incentives to deliver environmental outcomes

We are **very supportive** of:

- **strong measures to ensure that leakages of this gas from the grid are minimised,**
- **the proposal to require CATOs to submit and publish a report of their environmental performance.**

We consider that the environmental performance **report should include reporting on efforts to protect and restore biodiversity.**

As stated in our response to the previous consultation in early 2016, it is critical that CATOs are accountable for their ongoing performance with regards to environmental impact. We therefore support the proposals to incentivise environmental performance in a consistent manner to incumbent transmission operators (TOs).

While we recognise that sulphur hexafluoride (SF₆) may have very good electricity insulation properties, as it is a potent greenhouse gas we are concerned about the implications of leakages for the UK's ability to mitigate climate change. We are therefore very supportive of strong measures to ensure that leakages of this gas from the grid are minimised. We suggest that the level of the incentive for CATOs to address this is informed by the level of success that the current incentive placed on the incumbent TOs has had in driving appropriate behaviours. If there is scope for improvements to leakage prevention, then the penalty for CATOs should be increased to ensure that more action is taken by TOs on this.

We support the proposal to require CATOs to submit and publish a report of their environmental performance. The aspects mentioned (efforts to reduce transmission losses, overall business carbon footprint, visual amenity) are all important and should be included. In particular we would expect that the business carbon footprint would extend to all activity related to the construction and operation of the asset by the CATO and any companies engaged by them to deliver on aspects of this.

We also consider there would be significant benefit in requiring CATOs to report on their performance in relation to biodiversity. Actions that will help mitigate climate change are incredibly important and should be encouraged, but so too is ensuring that we are helping restore biodiversity and helping species to adapt to the impacts of climate change. Those

responsible for constructing and operating large infrastructure assets have significant potential for both mitigating the possible impact that may be had on wildlife, but also enhancing biodiversity on the land under their control. We are aware of some good examples of such work being implemented by National Grid, one of the incumbent TOs. Additionally, as mentioned in answer to a previous question, there are some interesting examples of biodiversity enhancement projects being implemented by other European TSOs. Some of these initiatives are featured in the [Protecting nature in Power Grid Planning Handbook](#). We would like to see all CATOs undertaking similar activity to make the most of the land for which they are responsible for the benefit of wildlife.

Grid infrastructure provides very useful opportunities for wildlife habitat and species specific conservation measures. Large linear areas of grassland can be managed for wildflower and other habitats, according to local habitat prevalence and considerations and operational requirements. Good vegetation management can encourage more diverse ecological communities, which can be further enhanced (where appropriate) by wider conservation measures, such as providing nesting boxes for raptors (kestrels/barn owls) which prey on the small mammals of semi-natural grasslands ecosystems. This approach should be extended around built infrastructure, which itself can incorporate features to encourage wildlife, such as nesting and roosting sites for bats and swifts.

The linear conduits of transmission lines may have valuable potential in linking areas of habitat, eg between nature reserves or other larger areas of semi-natural habitat. Such ecological corridors are now widely recognised not just as important ecological features of the wider countryside, but also as an important response to help nature adapt to climate change, facilitating the movement of individuals and populations in response in the changing location of suitable climatic conditions for species.

New infrastructure projects should be seen as a mutually beneficial opportunity for helping improve the fate of our struggling wildlife, whilst also facilitating the necessary transition to a low carbon energy system. A sustainable society is reliant on a healthy natural environment.