

Joint MP response to National Grid ESO (NGESO) Offshore Coordination Project consultation autumn 2020

Background

- This document has been formally agreed and prepared by the following East Anglian Members of Parliament: George Freeman MP (Mid Norfolk); Rt Hon Therese Coffey MP (Suffolk Coastal); Duncan Baker MP (North Norfolk); Jerome Mayhew MP (Broadland); James Cartlidge MP (South Suffolk).
- Over the summer of 2020 we have jointly held a series of virtual conversations with: the Energy Minister, Rt Hon Kwasi Kwarteng, and other officials at BEIS; overseas grid operators (e.g. Elia, Belgium); OFGEM; NGESO; technical specialists; local campaigners.
- As a result of these conversations we have endorsed the following contribution to the consultation and intend in the months ahead to engage with parliamentary colleagues across the UK with Offshore Wind interests, and with senior members of the Government, to drive forward the agenda outlined within.

Summary

- Each contributing MP strongly supports the acceleration of offshore wind electrical power generation, but is also grappling with the local onshore impact of the infrastructure necessary to transport that green electricity to the main population centres. From the impact of cabling and sub-stations near to the shore, to new powerlines across precious open countryside (including AONBs), each constituency we represent will in some way face increasing physical and environmental detriment as a result of our rightly ambitious goal to surge offshore wind output.
- We therefore provide our collective backing to proposals outlined in the NGESO consultation for a new co-ordinated approach to offshore wind, providing key benefits both to the economy/sector, and physical environment. Such an approach would save £6bn for consumers, halve the amount of associated infrastructure and enable the sector to grow more sustainably without being bogged down in perpetual planning controversies. We also believe that this approach is likely to be unavoidably necessary if the UK is to deliver its ambitious goals for offshore wind generation, as the current system of ad hoc connections is likely to prove unfit for purpose in that context.
- However, we believe that to ensure the UK maximises all the benefits on offer from an integrated approach, it is essential both that the regulatory structure for the sector is radically reformed, and that the legislation to deliver such change is brought forward swiftly.
- The Offshore Transmission Network Review puts great emphasis on integrated connections – rather than looking at onshore infrastructure in isolation. It suggests that the majority of the technology required for integrated design is available now and we feel strongly that this new emerging policy framework should also be considered now. In fact, the review report states that some changes to achieve an integrated network can take place within the current regime.
- Crucially, existing connections already granted should be reconsidered in light of this new integrated approach.
- We are therefore calling for ‘rapid and radical’ regulatory reform, ideally with a Bill in the next Queen’s Speech. We stand ready to do everything possible to assist BEIS and stakeholders in constructing draft legislation for rapid Royal Assent so that two of the

core principles of the Prime Minister's 'Project Speed' can be delivered in the context of offshore wind:

“accelerate infrastructure across the UK; promote a clean, green recovery”.

Current system inadequacies & regulatory ‘conflict of interest’

The current framework for connecting electricity generated offshore onto the onshore grid was set out as part of the Coalition Government in 2010-15, and plans for each individual wind farm developer to provide and fund the connection to the grid. Whilst the CfD and £400bn subsidy for Offshore Wind has seen significant investment and progress with the increase of UK Renewable energy, this has inevitably been accompanied by the construction of significant new onshore infrastructure, either delivered to date, or planned for the immediate years ahead.

With net zero by 2050 now legally required, and a dramatic expansion of the UK offshore energy target to 40 GW by 2030, it is now widely accepted in the industry that the way offshore wind capacity is configured needs to radically change for the system to cope. As Dermot Nolan, former OFGEM CEO, said recently, *“Britain’s renewed push for offshore wind risked politically unacceptable effects because the present system would involve too many unnecessary cables being built to individually connect each project to shore”* (The Times, Oct 8th 2020).

We agree – attempting to deliver net zero with a continued reliance on piecemeal infrastructure connections is a recipe for ever greater local opposition, and a breeding ground for expensive delay. This approach would be in the interest of no stakeholder since it would harm the environment – both physically and in terms of delayed emissions cuts – hurt consumers, hold back the offshore wind industry’s development and reduce our potential to be a self-sufficient exporting ‘Saudi Arabia’ of green energy.

However, whilst we very much welcome the enthusiasm with which NGENO has recently embraced coordinated offshore wind connectivity minimalism, we are concerned that the regulatory system within which it sits is *inherently* unsuited to the kind of broader oversight needed to push a unified model. In essence, the current model is based on unintended disincentives and conflicts of interest arising as a result of OFGEM / National Grid / Crown Estate profiting from the very fact that each connection of a wind farm is singular and not coordinated. This in turn leads to energy consumers paying for subsidies to monopoly quangos, benefiting a very narrow interest whilst the broader national interest of a maximally flourishing offshore wind sector – minimizing harm to the natural environment – is held back. To quote Dermot Nolan again from the same article:

“I think it is a good time to go for a fully independent system operator... I think the perception would be that in order to build a large grid offshore, and continuing to build the grid onshore, the planner for that system should be independent of the existing network owner and of someone who will be competing to build new network, as well.”

We agree.

Lessons from abroad

On 9th September 2020 we held a zoom call with senior representatives of Elia, the Belgian transmission system operator. We have also received technical advice from an independent expert drawing on other countries' experience, including Denmark and Germany. We formed five key conclusions from these international comparisons:

- The UK's reliance on the old model of "each farm provides its own connection" is viewed as an outdated anomaly, albeit one which in the words of a senior Elia executive was right 'for the time', and the most efficient system in the EU *when initially introduced*.
- Whereas, an integrated approach is now universally acknowledged as the sensible "industry standard" approach.
- Connecting farms and using integrated shared connectivity infrastructure delivers major benefits.
- With countries like the Netherlands planning HVDC island switching stations in the near future, there is a risk of the UK being left behind and unable to participate in an exciting new European hub of interconnectivity through which we – with the largest natural resource – could be a net exporter of green energy.
- As emphasized to us by Elia, the main issues which need addressing are NOT technological – important as they are - but the **legal, regulatory and liability** issues arising from moving to a coordinated model.

In short, we concluded from talking to those delivering such an approach overseas, that the most important part of any reform would be regulatory, and therefore is dependent on lawmakers to lead as much as the science.

Precedent and potential

From our engagement with experts and international providers we became confident over the summer that a coordinated wind farm approach is not only possible but preceded in other nations. In fact, we also discovered that there is a precedent within our own shores: the Western Link. The Western HVDC Link is an undersea electrical link between Hunterston in Western Scotland and North Wales, routed to the west of the Isle of Man and ultimately delivering power onwards into the North West of England. We noted with interest that a key reason for using an undersea link was to avoid an adverse impact on the visual environment.

We were also particularly interested in NGENSO's diagrammatic representation of how onshore connectivity might differ in two contrasting futures in 2050 (p21 of consultation document) – one image for the 'current approach' showing a dense mesh of onshore connections; another showing very few, with a much greater emphasis on undersea transmission. With the clear precedent of the Western Link, brought in to protect a beautiful part of the country from physical harm from overhead power lines, and the substantive vision of a 'connection lite' integrated future, we would regard it as a difficult exercise to communicate to East Anglian residents in the months ahead were moves towards a coordinated offshore future be discarded, delayed or approached without maximum thrust from all relevant stakeholders.

We also note various other occasions where support has been made from regulators/Government for the principle of coordination. The Offshore Transmission Network Review puts greater emphasis on integrated connections – rather than looking

at onshore infrastructure in isolation. It states that there are significant environmental benefits to an integrated approach as the number of onshore landing points could potentially be reduced by around 50%. National Grid also suggest that the majority of the technology required for integrated design is available now. Even more recently, proposals are being actively discussed and considered about offshore integration methods to minimise onshore landing points. We recognise that regulatory and legislative changes may need to be made but feel strongly that this new emerging policy framework should be considered now. In fact, the review report states that some changes to achieve an integrated network can take place within the current regime. Indeed, the government said they would do this in their document, “Industrial Strategy: Offshore Sector Wind Deal” published in March 2019, when they said in their plans to work with developers, they would address strategic deployment issues including onshore and offshore transmission, cumulative environmental impacts (both in the marine and onshore areas). The government reinforced this in the same strategy plan, stating in reference to the programme for deployment of offshore wind for up to 2030 which it expects to be done in a sustainable and timely way. That strategy specifically mentioned up to 30GW of generating capacity. We are now heading for 40GW so cannot wait for action in the future.

Criteria for a better system

We accept that future infrastructure cannot be removed entirely, and that we should maintain realism with the public about what is possible over what time frame. We also appreciate that, whilst united in believing that this project is very necessary and that the regulatory part is paramount, nevertheless there are significant technical challenges that should not be taken for granted. However, we are all elected representatives and believe that engagement with the public will be crucial as the new system is delivered, and we should clear on a set of priorities to guide policy:

1. *Removing conflict of interest:* of utmost importance, we believe that the system will require a new or significantly amended regulator able to sit truly independent from all commercial activity involved in the sector, taking a holistic approach to deliver a joined up offshore wind platform that truly represents the best interests of the communities, consumers and industry.
2. *Improving investor confidence in the deliverability of UK connectivity infrastructure:* by reducing political risk and system delay, and unifying the underlying platform, we would be sending a strong signal to market participants that we would be providing the system change necessary to cope with our ambitions for offshore wind.
3. *Improving compatibility with infrastructure in neighbouring North Sea systems:* the image on p21 of the consultation involves far greater use of large interconnectors out at sea which offer huge potential for linking up with European wind farms and being in a position to both export excess output, and import should the need arise.
4. *Reducing the overall time / cost barriers to rapid connectivity:* we believe that a coordinated approach, whilst inevitably involving significant upfront system change, once established would be far easier to develop and grow because of the significant reduction in political/legal challenge in planning terms, and the more straightforward proposition of adding to the offshore hub once the initial overhaul had been delivered.
5. *Maximising engagement:* potential new infrastructure inevitably causes controversy and it is essential that local government, Parish Councils and residents have the opportunity to engage meaningfully with the planning for new connections.

6. *Minimising environmental damage:* simply, we believe green energy should not harm the environment. There is now a widespread consensus that the combination of accelerated offshore wind output and a continuation of the current uncoordinated approach would lead to unacceptable levels of damage to communities, in terms of ever greater pressure of infrastructure build both near the shore and further inland.
7. *Maximising undersea connectivity:* we believe that the ultimate target should be to achieve as close as possible to the image set out in the consultation document (p21), referred to above, with the creation of an integrated offshore hub where onshore connectivity is minimized and far greater use is made of undersea transmission, opening up exporting opportunities and carrying much more power undersea, with those cables joining land as close as possible to the major population centers they are supplying.
8. *Maximising undergrounding, screening and other remediation:* with the potential for such a profound change in future infrastructure expectations, it will be that much harder for communities to accept where construction of new buildings and cabling remains necessary, meaning that there will need to be a much greater preparedness to support undergrounding through countryside and AONBs, and in ensuring that every effort is taken to minimize visual and community impact of new structures.
9. *Inclusive of projects at all stages:* a new coordinated strategy may reduce infrastructure for projects not yet on stream, but the regulator has already issued lots of coordination offers – including projects that are pre-DCO process - and there are many other projects that are mid-stream. All such projects should be re-considered in light of the new coordinated approach, to maximise the strategy’s positive impact on affected communities.
10. *Sharing infrastructure wherever possible:* by definition the coordinated approach will require at its heart the creation of a shared platform and platforms, but we would also urge that legislation is changed to permit sharing of onshore infrastructure going forward and ideally including projects being delivered or in the imminent pipeline.

Conclusion & Next Steps

We believe that there is now strong consensus among key stakeholders that the UK needs to move towards a radically different model of delivering offshore wind, fully embracing coordination, if we are to maintain our prime position as a global leader in offshore wind and – above all – deliver our ambitious targets for green energy generation.

Of course, whilst focusing as MPs on the need for regulatory reform as much as technological change we accept that this will be a complex process on all fronts. There are significant questions arising from a more unified platform about how the initial new coordinated infrastructure will be paid for and how liability will be dealt with.

We therefore propose that as soon as possible a working group of industry leaders, experts and the various regulatory and political stakeholders is set up to start a rapid review of these matters. This work should be performed in tandem with, and feed into, preparation for legislation that would be introduced at the earliest opportunity; ideally, the next Queen’s Speech.

If we fail to approach regulatory reform, and thereby the coordination process, with the same pace as offshore wind output is expected to accelerate, this would be intolerable in the communities we represent that are most likely to be affected. We argue that both aspects must be in lock step, ensuring protections for communities are improved and enhanced at the same time as output targets. The key factor in delivering this new infrastructure at speed will be to

legislate at the earliest opportunity for the new regulatory requirements needed to deliver a coordinated model, and we will be pushing at every opportunity to emphasise this need for rapid and radical regulatory reform.