

Meeting minutes

ENSG

Date: 02/09/2020	Location: Microsoft Teams Meeting
Start: 10:00	End: 13:00

Participants

Panel Chair	Dame Fiona Woolf	
Panel Members	Ed Rees (Consumer Representative)	Lynne Bryceland (DNO)
	John Greasley (Interconnector)	James Dickson (OFTO)
	Andy Paine (Offshore Developer)	Douglas Allan (Onshore Developer)
	Marko Grizelj (Technology Supply Chain)	Cathy McClay (Existing Service Provider)
	Darryl Murphy (Asset Investor)	Hedd Roberts (TO)
	Richard Clay (Seabed Manager)	Tania Davey (Local Environmental Groups)
	Simon Rooke (Asset Contractor)	
Early Competition Project Team Attendees	Hannah Kirk-Wilson (Network Competition Senior Manager)	Sally Thatcher (Network Competition Policy Manager)
	Rachel Payne (Stakeholder Lead)	Mike Oxenham (Network Competition Policy Manager)
	Urmi Mistry (Network Competition Policy Development Analyst)	Richard Paterson (Network Competition Policy Development Analyst)
Offshore Coordination Project Team Attendees	Alice Etheridge (Offshore Coordination Senior Manager)	Dr Biljana Stojkovska (Technical Manager)
	Luke Wainwright (Commercial Manager)	
Apologies	William Black (Planning Representative)	Craig Dyke (ESO - Head of Strategy and Regulation)

Discussion and actions

1. Welcome

Fiona welcomed the group members. Alice M confirmed that William Black had given his apologies.

2. Minutes and actions

Fiona asked whether the group was happy to approve the minutes for the previous meeting. Cathy McClay said that it was discussed in the last meeting that group members represent their sector rather than their individual

companies and this was not reflected in the minutes. Alice M agreed to update the minutes to reflect this. Fiona had given Alice four minor editorial comments to incorporate. Alice would circulate the revised minutes to the group.

Action – Alice M to update and circulate the previous minutes.

Fiona asked if the group was happy to approve the Terms of Reference. Richard said that it might be worth considering what sector to class the Crown Estate as, as it is not a sector itself. Alice M and Fiona agreed to consider this. The group agreed to approve the Terms of Reference.

Action - Alice M and Fiona to consider how the Crown Estate should be represented In the ToR.

The group reviewed the actions. Alice E confirmed for Action 3 that she had spoken to Tania about Natural England and is in the process of arranging a follow up meeting with Natural England and other wildlife organisations. Alice E said that it is best to have those meetings outside the group as Tania represents that sector at ENSG.

Hannah said she needed to chase again for the England planning representative for Action 5, as she had not yet received a response. She will continue to chase RTPI to find who she needs to contact. Alice E confirmed that she is engaging with the local councils

3. How ENSG will work with other groups

Alice E said that BEIS has set up the Offshore Transmission Network Review (OTNR) and within that there are several governance groups, one of which is their expert group that will bring together stakeholders to provide input into the overall project. The ESO form part of the OTNR and thought there was value to be participating in ENSG, specifically in reviewing the ESO part of the OTNR with the BEIS group covering all of the work of the OTNR. It is still not clear how that will work and if there will be duplication but once the BEIS group is established the plan is to take another look and see if there is still a role for both groups on this topic. Andy commented that this was a good philosophy to keep this group under review.

Fiona said that this group would allow the ESO to be ahead of the game where BEIS reviews are concerned, ENSG can add value to thinking and help prepare for BEIS review and review the options.

Fiona asked how ERSG and ENSG would interact for Early Competition? Hannah replied that when the ESO started looking at Early Competition it was thought that ENSG would be a subgroup of ERSG, however ERSG thought it would be better as a stand-alone group due to the importance of the project and specialist set of interests. ENSG was then set up as a sister group. It is still expected to report to ERSG the key milestones of the project, particularly in relation to the RII02 price control.

Fiona asked what ERSG had asked Early Competition to focus on to avoid duplication and to inform ENSG what they should focus on to ensure effective stakeholder feedback? Hannah replied that Early Competition was never part of RII0-2 business plan so ERSG have not commented on Early Competition specifically and it is quite different to what ERSG are looking at.

4. Early Competition

Suitability for Competition

Sally said there are four main points the ESO was consulting on with regards to suitability for competition, the first is drivers of network needs where it was asked whether connection projects and asset health projects should be in scope for competition. Mixed views were given where some responses thought all projects should be in scope, whereas others thought the connection projects may be delayed and asset health projects shouldn't be in scope as they sit more with TOs.

The consultation also asked for views on early or very early competition. The ESO proposed it should be early competition and all stakeholders agreed. Stakeholders did want to understand more about very early stage.

The next area is the criteria for projects to take part in competition for projects. It was asked whether it is right to explore whether projects below £50m should be considered. There were very mixed views with some respondents saying there should be no minimum value while others felt a value limit would be more appropriate to get more value from the process and assist TOs with business planning.

The last point was around who should make the recommendation to Ofgem on what projects should be competed, with options including the ESO or a panel. Most respondents agreed ESO as they are independent. Several respondents wanted to highlight that the process should be transparent, and the owner should be accountable.

Fiona said that only seven responses is disappointing and whether more were expected and were more stakeholders engaged through other means? Sally said yes many more than the seven respondents were engaged with and they were aware the consultation had a lot of information and wasn't the final consultation. There was a lot more engagement with industry through workshops. Marko agreed and said he didn't respond as there were so many other opportunities through workshops and webinars that it was felt they had already had their say and didn't need a formal response, which would have taken up a lot of time. Marko said engagement was very good and above and beyond what was expected.

Fiona asked whether these other engagements were used for feedback? Sally confirmed they were, and all feedback has been considered.

Lynne said they responded to the consultation, but companies have many competing priorities and with lots of consultations coming out it is difficult to respond in the timeframe so they need to have time to be able to formally respond and it can be difficult to do this in four weeks. TOs have responded as it directly impacts them. Sally responded that they are looking at the structure of the document to make it more bitesize and to give it more visuals. There is a need not to overwhelm readers but also to provide all the detail. Lynne said it doesn't need less detail and just requires more time; Ofgem gives 12 weeks to respond if it is a big issue.

Cathy said it is important to understand the purpose of different types of feedback, why you are collecting it and the best channels for collecting feedback. Consultations are very time consuming and the lone voice that can be valuable is lost. Then once you have the feedback it is important to consider what you do with it. Stakeholders want to know what is being done with their feedback to know they are not wasting time providing it. Cathy suggested having one to one conversations with stakeholders and asked if other channels were found useful? Sally said many channels were being used, including bilateral conversations with all who responded to the consultation to get better insight into their responses. Cathy suggested less but more detailed, higher quality conversations may be better, and Sally said they could ask stakeholders how they want to be engaged.

James said that the introduction of competition needs as many as competitors as possible, including other competitors who currently don't participate in TO work. There needs to be visibility of work coming through when it has been identified and some certainty to ensure it is worthwhile to prepare for the process.

Marko said that market appetite needed to be taken into consideration and to understand how it might work. Sally agreed it needed to be considered.

Lynne commented that more certainty was required, and network operators and investors need an understanding of what projects will be delivered through competition to give more certainty.

Douglas asked whether any developers responded, and Sally confirmed some developers did. Douglas asked if the benefits had been made clear to developers and Sally said they had been clear it would support low cost and faster delivery. Douglas asked whether it would give control of connection from the TO to the project, and Sally said it may not unless the developer competed and won the bid. Mike highlighted the current CUSC code modification to extend the definition of contestable assets.

Rachel spoke through slides 16 to 21 to give an overview of the consultation responses. Rachel said there were seven responses and the TOs responded as expected. The ESO ran webinars to give a high-level overview of

the consultation; there were 35 attendees who were surveyed. Seven responded to the survey, and five of those responded to the consultation.

Those who were surveyed were asked to score the consultation package, including the document, newsletters and webinars, out of ten. Some were very positive and there were two disappointing scores of two and four out of ten.

Some respondents asked for the consultation to be broken down more as there is a lot of information and to ask more yes/no questions. Respondents did like the clear documentation and that they were able to ask questions and get responses as part of the webinars and workshops.

Two survey respondents did not respond to the consultation due to lack of time and format of the consultation. The ESO will discuss what to do with the feedback received.

Roles and Responsibilities

Urmi said that Ofgem asked the ESO to consider roles and responsibilities so the team noted each role they thought would facilitate early competition and who could perform those roles and they asked stakeholders who could do each role and why. The Feedback was mainly positive with the majority supporting the roles identified and the proposed ESO role. It was also agreed that Ofgem should be the licence provider; however, some responses highlighted concerns of having too many roles and multiple interfaces, especially in relation to non-network solutions.

There will be workshops in September to provide more information on each role and get more feedback ahead of the phase 3 consultation. Sally said that they had just started to consider it in the phase 2 consultation and there will be more of a focus in the phase 3 consultation. Sally also said their position was that the Transmission Owners (TOs) should compete as others would, rather than them being the default. There were mixed views on this in the consultation feedback with general support of TOs competing. Several responses supported the TOs bidding as equals to others.

Fiona asked how planning works post legal separation of the ESO from National Grid Electricity Transmission and how it is ensured it is done independently? Sally replied that the TOs have a strong input into the process but going forward the ESO will need to take on more responsibility and they are looking into how to make that planning process work. Fiona commented that it is fundamental and that she can see why TOs might be sensitive as it's not straight forward when something goes wrong to understand who is responsible for the fault when you have two assets interacting with each other. It is difficult to carry out this part of the process without knowing a thorough planning process review is going to take place. Sally said this will be considered as part of phase 3.

Tender Process

Sally said the tender process proposal was not hugely controversial and that the feedback they received showed most people broadly supported the process. There were a variety of comments on the importance of the sustainability and environmental considerations and stakeholders asked for more detail on how things would be evaluated. There were some comments on the process with one question on how the two stages would fit together and will ensure the best proposals are taken forward from stage one; Sally confirmed they will look at this in more detail. A stakeholder commented that the process could favour the incumbent TOs currently and the scoring criteria should be pass/fail rather than a scoring system to ensure some are not over or under delivering.

Another key point that was highlighted was the ability of the ESO to do these assessments currently and what will be required for ESO to build capabilities to be able to run these tenders. There were also mixed views on what information stakeholders would require for this process. Most feedback was in line with the areas the ESO were planning on considering anyway, but all feedback will be taken into consideration and will be responded to in the next consultation. Fiona said in her experience the best process for competition has been where there is a lot of information provided up front.

Fiona asked who the stakeholders are who didn't support requirement of bid bonds? Sally said she believed there were a range of stakeholders. Fiona said that bid bonds are a cost to developers would prefer not to have

but it can drive quick project completion rather than relying on penalties for late completion. Sally agreed and said it was also worth mentioning that all respondents are people who would be participating in some form or another in the tender process.

Fiona said that it seemed a standard procurement pattern was being followed which is good. Marko agreed it was standard and having a two-stage process would help to resolve issues.

Simon said he would support not having a bid bond at this stage as we would want to attract as many competitors as possible and bid bonds will put people off. Simon said it may be good to consider keeping options open and if it is found projects are not moving fast enough over 5-10 years It would be possible to consider what can be used to encourage them to be faster. Mike said the consultation was not as clear as it could have been on bid bonds and there was little support for performance bonds as well. The ESO will need to retest bid vs performance bonds.

Commercial model

Mike said there were clear responses where stakeholders supported the proposed tender revenue stream and that the revenue period should match the need rather than being a fixed number. There was overall support for a revenue period cap to be put in place, though one disagreed and thought a cap at 45 years would be suitable, another said cap it at 25 years and asked for more evidence around why 45 years was proposed.

No respondents strongly disagreed with the commercial model itself and risk allocation. There is more work required by the ESO for the phase 3 consultation to give more tangible proposals, though they are not going to change the overarching view of the model but need to develop the detail more.

Fiona said the consultation indicated that the ESO were not taking a view on gearing. Mike said the consultation provided some options but did not give the ESO's view. There were mixed views and some suggestions that the rate should be set by the procurement body as an assumption of the bid and there were some concerns around having too much debt caution.

Simon said the gearing will depend on the risk allocation, but no one will know what the gearing will be. Darryl said it would be valuable to get input from the financial investment community but may be difficult to get. Darryl suggested that when more detail is known to engage more with them, but they tend to engage relatively late in this process. Simon said it will be very difficult for them to give a consistent view as it will be project specific

Post Tender Award

Mike said there was mix of firm responses and more general feedback. There was support of the tender revenue stream not commencing until commissioning and advanced payment for preliminary works.

It was described in the consultation that the code changes were minor, but feedback was that it was felt the changes were not minor. It is currently too early to discuss how the codes may be impacted.

Elements of decommissioning were agreed with, but there were some challenges on the need for decommissioning security.

It was agreed there will be the need for an environmental incentive. It was discussed what this might look like and how it would link to RII02. There will also be a workshop to consider an operating incentive.

They plan to look at the RII02 proposals on late delivery to consider how late delivery is dealt with as they do need to provide encouragement on time delivery, but penalties not be too severe as they do not want to put competitors off.

Fiona asked if milestones will be covered? Mike said there will be some contracted milestones; if payments are made in the preliminary work period, they may be linked to milestones. They need to look at what they can do if projects are not commissioned and whether they can end the contract for non-delivery. However, this might put people off.

Fiona asked whether ENSG members can attend the workshops in September? Mike said that ENSG members can attend and contribute if they want to. Rachel said she would forward on the newsletter to group members with the dates.

Action - Rachel to forward newsletter to group members with details about the webinars.

Distribution

Richard P said that the introduction of early competition at a distribution level and what the ESO's role in that could be was not consulted on as part of phase 2. Ofgem are currently considering introducing early competition to distribution as part of the new price control. The reason it wasn't consulted on was that the transmission level early competition needed to be more developed before it could be considered at distribution level. Now the phase 2 feedback has been received on options, the team will begin to consider this further. There is a workshop booked next week with a DNO working group to discuss introducing early competition. There will then be a webinar on 1st October to discuss options and gather views from a larger audience. It will be included in the phase 3 consultation.

Action - Rachel to circulate details of the Early Competition at Distribution webinar.

6. Offshore Coordination

Consultation approach

Alice E spoke through slides 24 to 28 and said the project timeline has been changed and that the report will be published later than originally intended. Alice E thanked the group for their comments on the Early Competition consultation and said they will take the feedback on board for the Offshore Coordination consultation.

There are three sections in the consultation with each going into more detail as there is a lot of information and it is recognised not everyone will have the time to read all the detail. This will allow stakeholders to choose to read the high-level overview or the full report. It will be made clear how the feedback will be taken into account in the final report to BEIS and Ofgem.

Andy asked whether four weeks to respond is enough? Richard commented that the whole timetable looks tight from 30th September to the final report in December and asked what is driving the timetable? Alice E said there is a small window of opportunity to influence projects for 2025-2030 timescales. BEIS is requesting information to feed into their work so it felt right to have a challenging timeline. However, the feedback will be considered, as it is recognised this makes it difficult for all involved.

Douglas agreed that four weeks to respond feels short as it is a very complex piece of work and it seems to be moving very quickly towards some decisions. Fiona said the ESO needed to be conscious of quality of feedback as well.

Tania said the environmental considerations need to be looked at in more detail as it may become a consents issue later. Natural England are hard pressed but it would be valuable to get a response from them so it would be beneficial to ask them if they would have time to respond. Alice E agreed to ask them.

Action - Alice E to contact Natural England about whether they would have enough time to respond to the consultation with the current timeline.

Luke said the CBA will outline what the coordinated approach is versus the counterfactual and will take input from local councils. Tania replied that marine life may cause difficulty and restrictions on where lines can go. These needs to be taken into account early on to ensure CBA is as realistic as possible. There will be some barriers and it needs to be identified what they are.

James asked if the consultation is intended to include views for Ofgem and BEIS and whether there is the intention for the views to be made public on website. Alice E said there will be key messages and recommendations provided to Ofgem and BEIS, but the recommendations may not be as strong in this

consultation as in the final report in December. Where they have been given permission, responses will be published.

Andy asked whether an iterative approach is envisioned. Biljana said she felt some iteration may be needed for the initial design and also agreed timing wise, the sooner the better to release more benefit from the integrated design.

Technology Workstream

Biljana said there are a few key messages from the report written to look at a holistic approach to offshore planning. The first point is in relation to the question - does the offshore integrated design reduce the number of onshore assets? It was found that yes, in 2030 the benefits of having an integrated design is a 60% reduction in assets compared to the radial design. This benefit will be found in onshore substation infrastructure, HVAC, HVDC, export cables and offshore infrastructure. The findings then showed a reduction of 60% to 70% by 2050. The research looked at six development zones, including North Scotland, East Scotland, Dogger Bank, East Anglia, South East, North Wales and Ireland. The results need further verification, but the benefits will go away if we don't act quickly and continue with the current radial approach.

The second message from the research is in relation to the question, what are the barriers to achieving an integrated design from a technology and system operation perspective? From a technology point of view, it was found that the biggest risk is implementation of DC circuit breakers. DC circuit breakers have not been used at transmission level in Europe (there is an operational project in China), and this may delay implementation. Another technology consideration is that the rating of HVDC submarine underground cables and the need to increase from current 1.3GW capacity to 1.8GW and voltage of 800kV DC in order to deploy more wind. These should be available in 2030. There are no other HVAC or HVDC dependencies that will critically delay offshore integration.

From a system operation view there are two main messages. One is that the SQSS should be reviewed to potentially allow greater integration. The current SQSS 1320MW normal entry loss risk of the offshore converter and the limit for infrequent infeed loss is 1800MW which applies to onshore generators and network. The recommendation is to assess options for better alignment of the links that apply onshore and offshore. We need to do further research to understand what it means if there is an increase from 1320MW to 1800MW and the impact on frequency response and reserves.

The other message relates to the Grid Code as the current rules are not clear and do not fully account for the characteristics of offshore windfarms connecting by HVDC. This needs to be reviewed to ensure rules are clear on how they can contribute to system operation.

Research on the impact of the offshore integrated system on the onshore system concluded there is a significant power transfer which is achieved across boundaries on the onshore system. It was also found the line loading in the integrated system is smaller than the radial case. However, this was the high-level analysis and there are a number of elements that need to be looked at further, including the benefits of wind curtailment, the number of losses and further analysis on stability and dynamic performance.

Alice E said these findings have been spoken through at a high level in webinars but not to the level of detail Biljana has shared so the ask is that this is kept confidential until it is made public in the consultation.

Marko asked about line loadings and whether they will be reduced with the integrated approach. Marko said it seems counterintuitive as there will be a reduction of radial circuits in the integrated approach and they would be focussed in a more localised area with less redundancy and he asked whether this has been taken into consideration. Biljana confirmed that the line loading will be reduced on the onshore system, the majority of the flow will be redirected on the offshore infrastructure and there will be less flow on the boundaries. It will reduce the number of onshore connection points and give more control of flow onto the network.

Marko then asked whether the 1800MW has been considered going further in terms of the SQSS and whether there could be more savings. Biljana said 1800MW is her proposal but there needs to be more research and this number hadn't been decided.

John asked what thinking had been done about the large nuclear projects coming onto the system and what the SQSS review group is thinking as there may be opportunity to use that work when reviewing the 1800MW. Biljana said they will link with that work and that will be in scope of their research.

Connection process

Luke went through slides 30 to 34 and said as part of the Offshore Coordination project, one of key areas they wanted to look at after feedback from stakeholders was the connections process. They asked stakeholders during webinars what the current barriers were to be able to consider options where the connections part of the process allowed coordination as much as possible.

From the feedback, there were a few themes, including the CION process. Luke said they think the process can be improved to allow coordination.

Liabilities and securities were another theme and it was thought that it requires CUSC changes.

Fiona asked whether the options in the slide pack were all being taken forward? Luke clarified that they are narrowing them down and refining them to create options that will be taken forward.

Marko said with regards to managing risk of implementation and the delivery model, many developers show concerns about the connection process, particularly with others managing it. There needs to be strong proposals and data on how the coordinated approach will be delivered and how the risk of stranded assets will be managed. Luke said they were giving tactical proposals and will be able to show in the CBA what the benefits and advantages were, but it won't show the steps get to an integrated approach as it is still too early. Marko said he was sure the benefits will be shown but it's the steps to get there that will cause issues and are absolutely vital. Luke said they are trying to evidence it first as there has been a lot of thought that there are benefits but it has not been evidenced until now. They will consider how to get there in the next stage. Alice E added that the changes will go beyond what the ESO can do, so they can consider what the ESO can control but not wider. This needs to be messaged right and they will work with the BEIS led Offshore transmission network review.

James said the ESO needed to view this from the perspective of a developer, as they need clarity of timing and certainty that it will not change.

Tania said a review of the CION process is welcomed. It would be useful to capture in the report consenting issues and environmental impacts as they are currently high level in the CION process. Coordination vastly reduces the impact, so they need to highlight these benefits.

Andy asked if they are considering what the role and remit of the ESO could be. Luke said they are not looking specifically at the ESO role; they are being relatively neutral and being led by stakeholders and internal experts.

Phase 2 will need to consider roles and responsibilities.

Simon asked for confirmation that there will still be radial connections, but a reduced number and if a developer cannot see a viable point of connection offshore then they will need to install a radial connection onshore. Luke said they were not looking at the model in that level of detail at the moment, but they need to ensure it will work in the real world and the right incentives are in place to make sure these connections will work

Cost Benefit Analysis (CBA): approach, current position and next steps

Fiona asked if there were any questions from the group with regards to the Cost Benefit Analysis. Hedd commented that the slides provided have a very static view of whether integrated networks could be an improvement to radial circuits, but the future is not certain. Can the CBA be made more dynamic? Luke replied that ideally the team would look at all Future Energy Scenarios (FES) but due to limited time they are unable to do this now. However, if there are scenarios later that would provide benefit by being considered they can do that.

Luke also confirmed that they haven't concluded what the impact would be if projects do not go ahead as expected, for example, if an asset is only utilised 60% because the connection does not happen as originally planned, but the team would like to look further into this.

Marko said that TeneT, the Dutch state-owned system operator covering the Netherlands and a large part of Germany, has done a lot of coordination of their HVDC links, though not to the extent that this project is looking at, but asked if the team been in contact with them. Luke said that they had used a Dutch consultancy firm and that they brought some of the learning across from Europe.

Marko then asked whether the work will include incentives for developers to provide reinforcements or coordinated solutions? Luke replied that it has not yet been considered at a level of granularity; so far they have been establishing in principle what the asset cost could be in billions using the scenarios and that it is very binary.

James asked how the team has created their counterfactual and whether they would be justifying the counterfactuals and why they have been chosen? Luke said the CBA framework will outline in detail why the ESO have chosen to look at things the way they have and used Imperial College of London to ensure it is clear and in line with how other CBAs are done. Early results show that a fair approach has been taken.

Project Timeline and Next Steps

Alice E discussed that at the last meeting it was mentioned that Offshore Coordination planned to extend the timeline; the CBA and Technical Analysis Consultation has been pushed back to 30th September and is planned to conclude on 28th October. However, reflecting on comments from the meeting, Alice E will consider whether the consultation response time should be extended. Fiona agreed as there it seems there is a lot of content for the consultation and the timeline could be reconsidered to ensure high quality input from stakeholders.

Action - Alice E to consider feedback and review the Offshore Coordination timeline.

7. Future ENSG meetings

Fiona said that it was our goal to give notice of when the future meetings will take place and the current thoughts are on slide 44. The next meeting will be on Monday 12th October or Friday 16th October.

Alice M will confirm with group members which date in October would work best. Alice M will then organise dates for the other future meetings to ensure enough notice is given. Fiona also confirmed there was a draft structure for the Early Competition, and it will be looked at in more detail at the next meeting.

Action - Alice M to confirm with group members what dates would work for future meetings.

8. AOB

Marko commented that he appreciated the short papers that the ESO provided ahead of the meeting. There was no other business.
