

Meeting minutes

NOA Committee January 2021

Date: 12/01/2021 **Location:** MS Teams
Start: 13:30 PM **End:** 15:30 PM

Participants

Attendee	Role in meeting	Job role	Attend/Regrets	Minute(s) attended
Craig Dyke	Chair	Head of ESO Strategy and Regulation	Attend	1-13
Rob Rome	Committee member	Acting Head of National Control, ESO	Attend	1-13
Gavin Brown	Committee member	Power System Manager, ESO	Attend	1-13
Kayte O'Neill	Committee member	Head of Markets, ESO	Attend	1-13
Matthew Magill	Committee member	Market Requirements Senior Manager, ESO	Attend	1-13
Julian Leslie	Committee member	Head of Networks, ESO	Attend	1-13
Lauren Moody	Committee member	Energy Analysis Senior Manager, ESO	Attend	8-13
Nicholas Harvey	Support member	Network Development manager	Attend	1-13
James Greenhalgh	Support member	Electricity Customer Connections manager	Attend	1-13
Alex Haffner	Support member	Strategic Insight Manager	Attend	1-8
Emmanouil Belivanis	Presenter	Power System Engineer	Attend	9-13
Kelvin Lambert	Presenter	Power System Engineer	Attend	1-13
Jingchao Deng	Presenter	Power System Engineer	Attend	1-13
Francis Vary	Presenter	Power System Engineer	Attend	9
Sean Williams	Presenter	Economics Engineer	Attend	1-13
Thomas Petty	Presenter	Economics Engineer	Attend	1-13
Jason Hicks	Observer	Technical Economic Assessment team manager	Attend	1-13
Paul Wakeley	Observer	Economic Assessment team manager	Attend	1-13

James Whiteford	Observer	System Capability manager	Attend	1-13
External Participants				
Thomas Johns	Observer	Ofgem	Attend	1-13
James Norman	Observer	Ofgem	Attend	1-13
Neil Copeland	Observer	Ofgem	Attend	1-13
Niall McDonald	Observer	Ofgem	Attend	1-13
Bless Kuri	Presenter	Head of System Planning and Investment – SHE Transmission	Attend	6-8
Roddy Wilson	Presenter	Network Planning Manager – SHE Transmission	Attend	6-8
Eric Leavy	Presenter	Head of Transmission Network – SP Transmission	Attend	6-8
David Adam	Presenter	Transmission Network Manager – SP Transmission	Attend	6-8
Kirsten McIver	Presenter	SP Transmission	Attend	6-8
Mark Perry	Presenter	Network development - NGET	Attend	6-10
Nicola Todd	Presenter	Connection Portfolio Manager – NGET	Attend	6-10
Le Fu	Presenter	NOA Lead – NGET	Attend	6-10

Discussion and details

Topics to be discussed

1. Apologies and introductions

Mr Dyke welcomed all attendees and introductions were made

2. Meeting governance and process

[Redacted due to administrative nature]

3. Minutes of the NOA Committee meeting held on 8 October 2020

The draft NOA Committee minutes for the meeting held on 7 December 2020 (the “Minutes”), will be circulated after the meeting and be approved by circulation.

4. Actions arising from the NOA Committee meeting of 7 December 2020

Mr Dyke invited Dr Deng to provide an update on Action 16.1 and the following points were noted:

4.1 Action 16.1 - Investigate the economic impact of advancing the Eastern HVDC links

- Delay costs for each were looked at i.e., least worst regret (LWR) for advancing the Eastern Links (E2DC, E4D3, E4L5), TGC and onshore routes CMNC. All of the links received a 'Proceed' recommendations

Following this, **Action 16.1 was closed.**

5. NOA for Interconnectors

Mr Dyke invited Mr Dolphin to provide an update on NOA for Interconnectors (NOA IC) and the following points were noted:

- NOA for Interconnectors provides a market and network assessment of the optimal level of interconnection capacity to GB. It is not a recommendation of or an assessment of the viability of actual current of future projects: the final insights are largely independent of specific projects
 - Following the signing of the Cooperation Agreement on 30 December 2020, longer term energy trading arrangements will be agreed so that markets are not affected
 - Interconnection capacity in the range of 16.9 GW to 27.7 GW between GB and European markets by 2040 would provide the maximum benefit to GB and European consumers
 - The optimal levels of interconnection for each scenario are: Consumer Transformation - 27.1GW, Leading the Way - 27.7 GW, Steady Progression - 16.9 GW and System Transformation - 21.5 GW
 - Increased levels of interconnection bring benefits to GB and European consumers, both in terms of lower wholesale prices and increased use of renewable power.
 - Increased levels of interconnection are essential to achieving net zero greenhouse gas emissions by 2050.
 - Interconnectors are a key source of additional electricity system flexibility:
 - reducing renewable energy supply curtailment
 - exporting excess intermittent renewable electricity
 - reducing the need for electricity storage by importing electricity when intermittent renewable electricity levels are too low to meet demand.
 - Last year's NOA IC resulted in a range of between 18.1 GW and 23.1 GW
 - This year's NOA IC, the optimal paths are very short, compared to previous years. This was due to setting the baseline level of interconnection at the FES 2020 level. This was because for FES 2020, interconnection cannot be removed, as this prevents BID3 from producing a supply/demand match at the sub-daily level.
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Transmission Owners enter the meeting

6. Offshore Wider Works

Mr Dyke invited Mr Lambert to provide an update on Offshore Wider Works (OWW) and the following points were noted:

- For the first time, **economic benefits** have been demonstrated on the wider system of a number of **conceptual offshore integration options**, especially under the most aggressive net zero scenarios.
- Under Leading the Way, these options provide economic benefit in reducing constraint costs:
 - 700 MW AC link between the Dogger Bank platforms (C2)
 - 1500 MW connection from Dogger Bank area to Hornsea area (A2)
 - increased rating to 2500MW of proposed connection from Hornsea area to shore (Norfolk) (D)
- The offshore link between the Dogger Bank platforms (C2) is shown to be viable in all three net zero scenarios
- The other viable options (A2 and D) also provide benefit in the other net zero scenarios (Consumer Transformation and System Transformation), but not enough on their own to make the investment worthwhile.
- Discussion have been held with the Offshore Coordination Project (OCP) team for consistent messaging.
- A spread of years between 2028 and 2034 were studied, depending on the combinations of the projects. A guiding principle was the commissioning of the existing connections.

7. Marginal - CDHW Cellarhead to Drakelow circuits thermal uprating discussion

Mr Dyke invited the Dr Deng to provide an update on CDHW and the following points were noted:

- Action 16.2 from the December Committee was to provide further information about the drivers for CDHW's recommendation.
- The EISD of this option is 2023. This option was critical in all scenarios but not required in Steady Progression due to lower flows across B8 in this scenario.
- Least Worst Weighted Regret (LWWR) was used to inform the decision.
- Net-zero scenarios have more generation in Northern England and this combined with the 'Ten point plan' and TEC register suggests the expectation is that these plants to connect earlier than the dates anticipated in Steady Progression
- LWWR sees a shift into the net zero scenarios to overturn the delay recommendation

Based on the evidence presented, the Committee agreed to overturn the decision of "Delay" to a "Proceed" recommendation for CDHW.

Following this, **Action 16.2 was closed.**

8. Action 16.3 – Provide further information about CLNC - New North West England to Lancashire reinforcement not being 'optimal' in this year's NOA.

Mr Dyke invited the Dr Deng to provide an update on CLNC and the following points were noted:

- CLNC's benefit was studied alongside other reinforcements along the B8 boundary.
- The evidence shown for CLNC was not presented to the Committee and ongoing discussions will be held with NGET.

Following this, **Action 16.3 was closed.**

Scottish TOs exit the meeting

9. Marginal - PTNO North Wales reinforcement (Pentir - Trawsfynydd new circuit) discussion

Mr Dyke invited the Mr Moseley to provide an update on PTNO and the following points were noted:

- PTNO relieves constraints in the NW2 boundary and was critical in System Transformation only. This option has an EISD of 2027.
- The analysis showed that the recommendation should be a "Proceed", however, Action 16.4 from the December Committee was to provide further information about the drivers behind the recommendation
- Holyhead Biomass plan is a key driving factor for PTNO in Steady Transformation. The ESO currently has low confidence in the biomass plan being delivered in time.
- Furthermore, there is no compelling evidence to support any additional individual driver for PTNO (for example a windfarm) being delivered by 2027 or earlier.
- The ESO's view is the 'Proceed' recommendation for PTNO should be overturned to a 'Delay' due to the low confidence in the Biomass plant driving the need in the System Transformation scenario.
- Further evidence is needed on the generation background for the Committee in order to make a final decision for the recommendation of PTNO.

Action 16.4 was as closed and a new action was noted:

Action 17.1- Provide a short joint briefing paper (Energy Insights, Network Development and Customer Connections) on the generation background to the Committee and NGET about PTNO.

10. Network access in the south and east region

Mr Dyke invited Mr Belivanis to provide an update on Network access challenges in the south and east region and how they impacted the NOA recommendations and the following points were noted:

- Outage requirements had an adverse impact on the results/recommendations that were presented at the NOA Committee meeting held in December.
- A number of key options were receiving "Delay" recommendations due to outage clashes. The action was taken to engage with NGET and consider the outage requirements further.
- The approach taken was that the previous outage requirements for a number of key options following positive outage optimisation discussions were relaxed:
- Further economic analysis resulted in:
 - A net increase of 11 options now being a "Proceed" (BMM2, HWUP, BTNO, BPRE, SCD1, ATNC, AENC, SER1, PEM1 and PEM2, RHM1, RHM2)

Based on the evidence presented, the Committee agreed to overturn the "Hold" to a "Proceed" recommendation for reinforcements BMM2, HWUP, BTNO, BPRE, SCD1, ATNC, AENC, PEM1 and PEM2.

BRRE - Reconductor remainder of Bramford to Braintree to Rayleigh route

- Option BRRE received a "Proceed" recommendation in the December Committee. The optimal year (2023) was determined in order to avoid outage clashes. In the updated set of results, where a number of outage restrictions were not enforced, this option is no longer required on its EISD.

Based on the evidence presented, the Committee agreed to overturn the "Proceed" to a "Hold" recommendation for BRRE

Post publication

- After the NOA was published there will be a review of the outage process and the following points were noted:
 - NGET are to rework the outage requirements submitted in the region
 - Co-optimize the outage requirements for the identified group of interacting options

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- Use the revised recommendations and optimal years as guidance of what should be achieved
 - Next years' NOA will consider the outage requirements afresh. The ESO will require a new, viable and co-optimised outage plan for the region for this year's revised recommendations to hold true.

Marginal options/recommendations - SER1, RHM1 and RHM2

Mr Dyke invited Mr Belivanis to provide an update on the marginal cases as a result of outages in the south and east region and the following points were noted:

- SER1, RHM1, RHM2 were marginal options, where the ESO's view was for the recommendation to go from "Hold" to "Proceed".

Case 10.1: SER1 - Elstree to Sundon reconductoring

- SER1 was 'critical' in Leading the Way only and required in 2025 on the other three scenarios. It provides capability to LE1 and SC1 boundaries. This option also facilitates delivery of other options such as HWUP and BTNO. SER1 has an EISD of 2024.
- The ESO's current view is that the option should receive a "Proceed" recommendation as it has a low first year spend, the ability to support delivery optimisation and it is the LWR decision. The LWWR analysis provides confidence to the recommendation of "Proceed".

Based on the evidence presented, the Committee agreed to maintain the recommendation of "Proceed" for SER1.

Case 10.2: RHM1 and RHM2 - 22MVAr MSCs at Rye House

- RHM1 and RHM2 were 'critical' in Leading the Way. It provides capability to EC5 and LE1 boundaries. The proceed recommendation was driven by higher regrets in Leading the Way scenario. This option has an EISD of 2024.
- The ESO's current is to "Proceed" with both options. The LWWR analysis provided a high confidence in the recommendation.

Based on the evidence presented, the Committee agreed to maintain the recommendation of "Proceed" for RHM1 and RHM2

Following these decisions, **Action 16.5 was closed.**

11. Date and time of next meeting

The next meeting is scheduled for 5 May 2021

12. Any other business

None

13. Feedback and review

None

Action Item Log

Action items: In progress and completed since last meeting

ID	Description	Owner	Due	Status	Date
16.1	Investigate the economic impact of advancing the Eastern HVDC links	Ms Jiang	12/01/2021	Complete	08/12/2020
16.2	Provide further information about the drivers behind the CDHW recommendation.	Dr Deng	12/01/2021	Complete	08/12/2020
16.3	Provide further information about the reasons for CLNC not being optimal in this year's NOA	Mr Li	12/01/2021	Complete	08/12/2020
16.4	Provide further information about the drivers behind the PTNO recommendation.	Mr Williams	12/01/2021	Complete	08/12/2020
16.5	Consider further the classification and presentation of options which would be critical if it were not for outages	Mr Belivanis	12/01/2021	Complete	08/12/2020
16.6	Consider the recommendation of option delayed only due to outages in the next review of the NOA methodology.	Mr Belivanis & Mr Lambert	05/07/2021	In progress	08/12/2020

Action items: New

ID	Description	Owner	Due	Status	Date
17.1	Provide a short joint briefing paper (Energy Insights, Network Development and Customer Connections) on the generation background to the Committee and NGET about PTNO.	Mr Williams & Mr Moseley	15/01/2021	In progress	12/01/2021