

James Norman,
New Transmission Investment,
Ofgem,
9 Millbank,
London, SW1P 3GE

**National Grid
Business Development**

NTIMailbox@ofgem.gov.uk

24 February 2017

Dear James,

North West Coast Connections – Consultation on the project’s Initial Needs Case and suitability for tendering.

National Grid Business Development (NGBD) welcomes the opportunity to respond to this consultation.

NGBD is a ring-fenced division of National Grid plc, responsible for developing new opportunities. We lead the development of the electrical interconnector projects for National Grid and as a result have significant experience in safely developing complex transmission projects with multiple stakeholders. NGBD has a world class safety record, a robust approach to handling risk and managing projects in a way that ensures they are delivered in-line with expectations.

We are responding to this consultation as a developer, investor, and long term operator of future transmission solutions and we are keen to support competitive tendering where it can bring benefits to consumers and the connecting customer.

Please find attached our detailed response to your questions below, in summary these are:

- 1) We recommend tendering the Southern section only;
- 2) We suggest how to manage the multiple, complex interfaces that would be produced by tendering packages of the project. Including making coordination the clear responsibility an individual entity and appointing an independent designer; and
- 3) We have a view on risk allocation between parties. We recommend a mechanism for dealing with unforeseen cost changes, ensuring that the regime is optimised for consumer benefit by balancing this with a requirement for CATO due diligence

We would be pleased to discuss our views and feedback. For further details, please contact Jonny Gallagher (jonny.gallagher@nationalgrid.com).

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Ian Graves', with a horizontal line drawn underneath it.

Ian Graves
Director, National Grid Business Development

Detailed Response

1) Chapter 2: Strategic Wider Works assessment

A) Question 1: Do you agree that there is a technical need for the project if Nugen's project goes ahead?

We agree with Ofgem's assessment of the technical need for the project.

B) Question 2: Do you agree that connecting the Moorside site using four 400kV circuits is appropriate and compliant with SQSS requirements?

We agree that the proposed connection topology (four 400kV circuits) for Moorside is appropriate and compliant with the SQSS.

C) Question 3: Do you agree with our initial conclusions?

We agree with the initial conclusions that there is a technical need, that the proposed option is appropriate, and that Ofgem should retain the right to review the selected option if costs were to escalate.

However, should Ofgem consider a change in view of the preferred connection option prior to the Final Needs Case assessment, it should be borne in mind that this will have significant implications for the customer, as well as for the planning process, stakeholders, and any preparatory works undertaken by potential CATO bidders. It is in the interests of all parties to bring certainty early, especially where the cost differential is marginal.

D) Question 4: Are there any additional factors that we should consider as part of our Initial Needs Case assessment?

We endorse Ofgem's assessment of the initial proposals with the caveat that, should there be significant changes in the CfD or Moorside development timetable, the solution may need to be re-examined. For example, Ofgem have noted that the customer has submitted a Modification Application and this could impact on timetables for the connections. To ensure readiness of the market, and to avoid inefficient bids, it is important that timelines are kept current and realistic.

2) Chapter 3: Competition assessment

Regarding the questions in the third section, we have focussed particularly on:

- 1) Coordination requirements for different parties delivering different sections:
 - i. The need for responsibilities to be defined clearly at the start of the project;
 - ii. The requirements for co-ordination during design and construction; and
 - iii. The requirements for co-ordination between the CATO(s), DNO and TO when interacting with key external stakeholders.
- 2) How risk should be allocated across the different parties:
 - i. The need for risk to sit with the party best placed to manage it;
 - ii. Risks attached to preliminary works and subsequent changes; and
 - iii. The need for clarity around consequences of late delivery.

A) Question 5: Do you agree with our view that:

- (a) the overall project meets the criteria for tendering?
- (b) the potential sections meet the criteria for tendering

We agree that the overall project meets the parameters for competitive tendering as identified by Ofgem. We also agree that the three sections identified (Northern, Southern, and Tunnel) fit the competitive tendering criteria. We note the extension work would meet the 'new' criterion however in each instance it would be prudent to consider the practicalities of such works in the context of safety, system security and proximity to other TO assets.

B) Question 6: What are your views on the deliverability assessment for:

- (a) the overall project?
- (b) the potential sections?

We broadly agree with the deliverability assessment. Our view is that:

- the Northern section is not suitable for competition due to the timescales involved;
- the Tunnel section is unlikely to be suitable for competition due to the timescales between CATO appointment date and tunnel preparatory works (TBM; shaft build) required to meet the August 2025 milestone date;
- the Southern section is suitable for competition.

Should Ofgem choose to tender the Southern section, and assuming that the design and build of this section takes circa 4 years, we suggest that the proposed timeline be revised to run the tender much closer to the 2022 contractor design activity.

We agree with Ofgem that if milestone dates associated with the Moorside programme or DCO process slip then it may be appropriate to re-assess the packaging and connection timescales.

C) Question 7: What are your views on the need for overall coordination of the whole NWCC project if the project were to be split into packages with different delivery parties?

i) Coordination with the customer

It is vital that all activities are done in coordination with the customer; this imperative is reinforced if Ofgem opt to package the project into different sections with different delivery bodies. Given the scale and complexity of the customer's project, ensuring alignment between all transmission construction entities and the customer is vital. Where there are changes to planning permissions, project plans, or other changes, the customer needs to be fully engaged to minimise risk.

ii) Coordination with TO and other CATO's:

We agree that the sections as identified in Table 2 provide for sensible packaging of the overall connection work.

1) Northern Section:

As site supplies are the key driver and the timescales involved do not currently appear to suit a CATO, **we believe co-ordination issues will be minimal**. There will be some coordination requirements for extensions associated with Moorside substation to enable connection of the Southern circuits, and any works required on the ENWL circuits. Additionally, there may be precedents set, or agreements made, with landlords and stakeholders on the Northern section that have implications for the Southern section,

The Moorside substation needs to be designed to facilitate safe and secure connection of the Southern circuits. This will require space provision and land acquisition from the Northern licensee. **Given the criticality of supplies it may be prudent for the North licensee to design and build the busbars and bays associated with the Southern circuits**, largely dependent on the arrangement and type of substation assets (AIS, GIS, HIS). This may then avoid any outages and or security of supply risks. It may also help mitigate proximity and coordination interfaces.

The current programmes would require the Moorside substation to be designed before a CATO appointment is made (construction would be concurrent with tendering) and thus it is **likely that the Northern section licensee will need to provide information into the tender process to enable the CATO to account for any interfaces, including asset transfers if required**.

2) Southern Section:

The Southern section main interface points with other licensees would be at Moorside and Roosecote substations. The tunnelling work and cable installation would require termination at Roosecote (and beyond to Middleton). Given the timings indicated in the programme, it will need to be clearly articulated in the each scope where responsibilities lie in both design and construction. **To ensure continuity and efficiency, an independent designer may need to be appointed to ensure assets at the interface points are suitable for integration** (electrical, mechanical, and physical design).

Prior to construction it may also be appropriate to engage a construction coordinator to ensure effective communication between the Tunnel works and the Southern works. If the timetable slips, a coordinator may not be necessary as one or both licensees' may be appointed and can take a lead role.

iii) ENWL

The timing of ENWL works will overlap with CATO work and thus require coordination. **We do not foresee any particular risks associated with this**, save for the fact that the CATO will not have been involved in the early DCO discussions and thus will likely be required to adjust their programme to suit that agreed between the TO and ENWL. Ideally this should be highlighted in the tender process together with any constraints associated with land access or timing.

iv) General Coordination

Coordination is an area where we are able to bring considerable leadership and experience. On the basis of our expertise, built through experience in developing interconnector projects, we have highlighted some specific areas, and made recommendations for how these can be addressed.

Our interconnector projects involve the coordination of onshore works, substation works, offshore cable works and alignment with construction activities in the overseas partner jurisdiction. These works are carried out by multiple partners (NGET and subcontractors).

Our experience is that this coordination can be successfully carried out through:

- Regular coordination meetings; and
- A clearly agreed division of responsibilities.

Given the critical nature of the NWCC work, the tight timeframes involved, the need to deliver the entire project to customer requirements and the potential for multiple delivery entities, we suggest that **there is merit in appointing a coordinating entity at the start of the process**.

Such a coordinating entity should be an independent entity in order to avoid conflicts of interest; this entity would:

- Assess the level of coordination required;
- Manage the coordination meetings and interfaces accordingly; and
- Curate a shared document management system so that changes are quickly identified and disseminated.

The responsibilities need to extend throughout the project lifecycle; starting at the time the tender is launched and going right through to delivery and should apply to internal and external matters.

Appointing an independent entity is essential to coordination. The cost of this coordinating function needs to be fully evaluated at the outset and factored in so that the customer and consumers understand the full costs.

1) Inter-Project Coordination

During the tender a coordinating entity should be appointed to ensure:

- Bidders can efficiently request further information where they believe there is a shortfall in that which is available in the data room;
- That this is shared in a timely fashion with all bidders;
- Final division of responsibilities is agreed when the preferred bidder has been appointed; and
- The regularity and success of project coordination meetings.

2) External Coordination

There will also be a need to coordinate the project approach to external stakeholders. Given the scale of the NWCC project and the environments it crosses, there will be a range of external stakeholders for whom it is sensible to have a single interaction point with the project. These will include the connecting customer, community groups, planning authorities, land owners and environmental stakeholders. Having a single coordinating entity to interact with these stakeholders on behalf of all delivery bodies will ensure a more efficient programme of works and minimise the risks of mixed and unclear messaging.

Having different delivery parties setting precedents, or making agreements, with landlords, planning authorities, or other stakeholders which have implications on the design, construction approach and therefore costs on the other sections is risky if not coordinated properly.

D) Question 8: If some, or all of NWCC were to be tendered, what, in your view, is the most appropriate allocation of risks across the relevant parties (TO, CATOs, and consumers)? How should these risks be managed?

As a company interested in bidding for CATO projects, we believe that **risks should sit with the party best placed to handle them** as this will help balance consumer benefit with commercially attractive projects delivered in line with customer requirements.

We view risk allocation as an important factor influencing the success of the CATO regime as it will directly affect the prices bid. **Unclear or inequitable allocation of risk may push up costs on different packages.** Specifically, we believe that risks associated with preliminary works, and delivery risks need to be addressed and clearly allocated at the outset.

As Ofgem are considering this project as a late-CATO project, bidders will be relying on the preliminary works carried out by NGET. It is entirely possible that there will be areas where these works prove (unavoidably) insufficient, due to changes to the project or unforeseen issues. Clearly CATOs will need to undertake due diligence and should not be indemnified against foreseeable changes.

We suggest that Ofgem **develop a mechanism for assessing such additional expenditure along the lines of the OFTO regimes assessment of cost for unforeseen events.** This would give bidders confidence that where costs are unavoidable they can be recovered, while still requiring the CATO bidders to undertake comprehensive due diligence.

We also believe that clear iteration of the balance of delivery risk is required to give certainty to the customer and clarity to the bidders. Under the current regime, one major lever for ensuring delivery is Liquidated Damages; these are included within the contract at the customer's discretion. Late delivery of transmission assets by a CATO will have a negative impact on the customer, consumers, and potentially the wider network. There is a clear need for delivery incentives; these need to be balanced against the need for CATOs to remain an attractive investment for a wide range of bidders.

Given that the delivery risk, traditionally held by NGET as the TO, may need to be split across and between multiple parties, this area will require close attention. If the allocation is inequitable then the CATO may take too much, or too little, risk. Clearly making CATOs risky is likely to impact the funding options available while taking out too much of the incentives to deliver promptly could impact on the customer.

E) Question 9: What are your thoughts on the substation modification and extensions works at Harker and Middleton, in the context of efficient CATO delivery, including the options presented in this document?

While we believe that industry codes are sufficient to manage the interfaces at the substations in any of the scenarios envisaged, Option 1 seems the most logical. The TO has the best understanding of the substation (from a safety, and physical perspective) and is best placed to co-ordinate work and manage the interface with the existing asset.