

Scope of Connections Review Process for the NOA Stability Pathfinder Phase 2 Tender

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Introduction

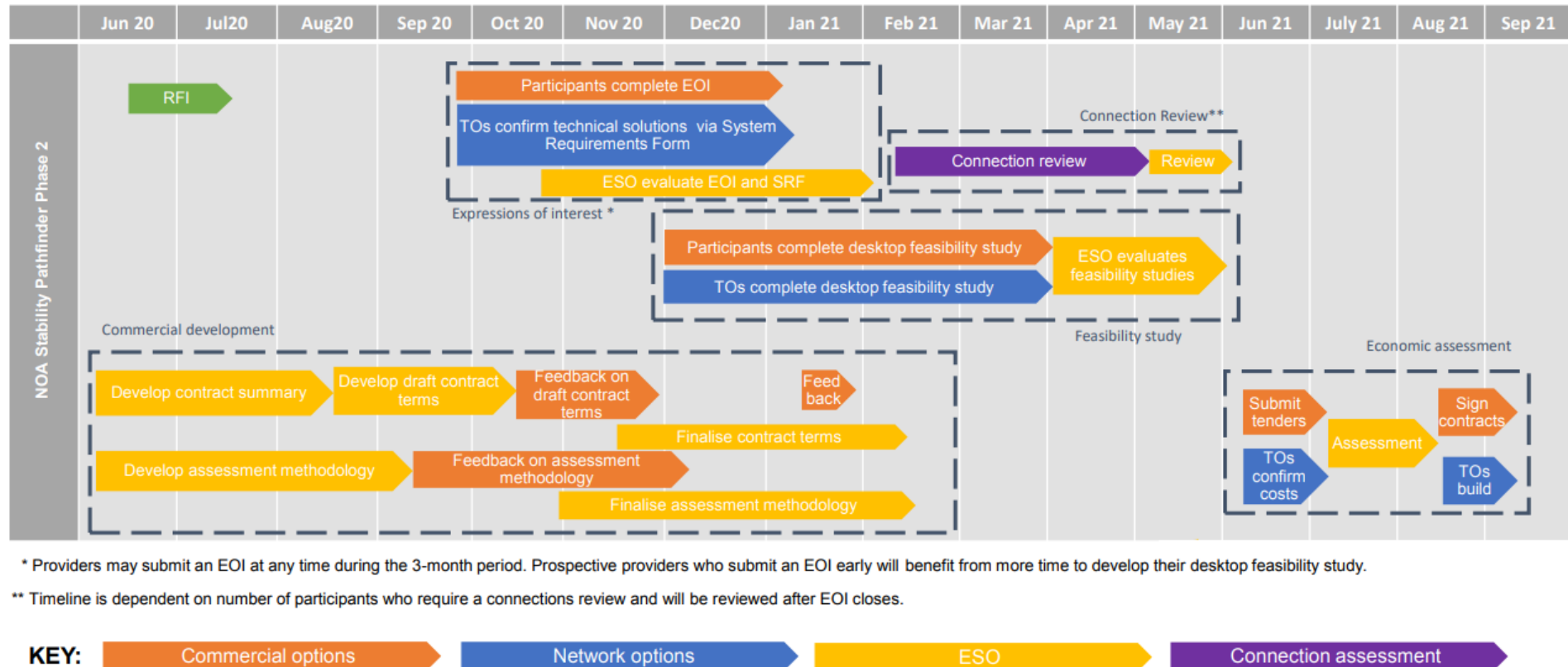
This document presents the scope of the connections review process that will be undertaken by SPT and SHE Transmission for tender participants who do not have/ will not have a connection agreement in place ahead of the economic assessment stage of the tender. The ESO will coordinate the connections review process.

Given that having a connection agreement in place is not a pre-requisite for participating in the NOA Stability Pathfinder phase 2 tender, the connections review process has been included in the tender timeline. This is to provide enough confidence to the TOs and ESO that any proposed solutions could safely connect to the network as well as to provide the tender participants with an indicative view of the deliverability and cost of connecting their solutions to the network as a means to support their commercial tender.

Please note that the connections review process is only to facilitate the tender. Any successful tender participants who do not already have a connections agreement in place will be required to go through the formal connections process after the tender results have been announced.

Solutions which are eligible to participate in the tender and already have connection offers and do not require any modifications to their existing agreements, will not require a connections review. However, the relevant information such as cost and delivery dates will be derived from their connection offers to facilitate the economic assessment.

Timeline



* Providers may submit an EOI at any time during the 3-month period. Prospective providers who submit an EOI early will benefit from more time to develop their desktop feasibility study.

** Timeline is dependent on number of participants who require a connections review and will be reviewed after EOI closes.

Figure 1 – Timeline of Stability Phase 2 tender

The above timeline is an extract from the Stability Pathfinder Phase 2 [RFI feedback](#) which was published on 19th August 2020. The connections review process will take place following the completion of the EOI with the key milestones of the process indicated in Table 1 below. Please note that the dates may be subject to change and the duration of the connections review process will be adjusted to reflect the number of options received as part of the EOI process.

Key Tasks	Proposed Dates
NGESO will collate and review all the relevant information from tender participants received as part of the EOI	EOI window
For participants who pass the EOI, NGESO will provide all the relevant technical information to the respective TO for the connections review process.	End of Jan 2021
TOs will conduct the connections review with regular engagement with ESO.	Start of Feb 2021 to start of May 2021*
Outcome of the connection review process will be returned to NGESO.	Start of May 2021*
NGESO will review the information and discuss with the TOs.	Throughout May 2021*
The final outcome of the connection review process will be provided to tender participants.	Beginning of June 2021* ahead of commercial tender stage

Table 1 – Key Milestones

*timeline is dependent on the number of options that will need to be assessed as part of the connections review.

Scope of Connection Review Process

This section describes the activities that will form part of the scope of the connections review process. This assessment will apply to new solutions which do not have a connection offer or to solutions which are already connected but require modifications to their existing connection agreements to deliver the stability service.

Technical impact assessment for each solution

- Based on the technical information provided as part of the Expression of Interest (EOI), the TOs will conduct a set of technical studies to determine the network impact of each solution and the level of reinforcements required to enable a connection to the network.
- The scope of studies will include fault level assessments, power flows and voltage assessments including voltage step changes for each proposed solution. These assessments are similar to those which would be usually conducted as part of the normal connections process.
- Complex studies assessing the impact on system stability, power quality, sub-synchronous interaction, protection, etc. will not form part of the scope of the connections review process.

Notes

- The TOs will consider each tendered option according to the criteria specified in the EOI template i.e. whether or not options are mutually exclusive and/or whether or not they belong to an “All or Nothing” group.
- It will not be possible to change the technical parameters (please see the EOI template for details) during and following the completion of the connection review process as this would have an impact on the connection design, reinforcements and connection costs. It is therefore important that, as part of the EOI submission,

tender participants provide the details of the best option(s) that they would like the TOs to assess as part of the connection review process.

- As part of the EOI submission template (see section 5c- Project Details), tender participants can state their preference with regards to the type of connection to be explored i.e. SQSS compliant connections or connection design variations. The technical studies and identification of network reinforcements will be carried out in accordance with the option chosen. Please note that where a design variation would result in a provider's availability to be lower than 90%, the solution would not be eligible in the first instance to progress in the tender. However, if the full requirement cannot be met in the tender with this constraint, the 90% availability criterion may be relaxed. The TOs will comment on whether certain design variations could result in the service availability to be below 90%.
- The technical analysis will be based on assumptions agreed between the ESO and the TOs, the details of which will be confirmed with all parties before the start of the connections review process.

Network reinforcements/ works and associated infrastructure costs that are required to connect the solution to the network

The following activities will also form part of the connections review process to provide an indicative view of the TO works that would be required to connect solutions to the network and the respective costs and lead times for such works.

- Identification of TO works/ reinforcements required to enable a connection to the network, categorising them into infrastructure assets and connection assets (if applicable). Please note that user assets will be the responsibility of the tender participants.
- High-level assessment of lead time and earliest in-service delivery date (EISD) for the TO works/ reinforcements, considering outage and delivery resource requirements/ availability.
- Development of a high-level programme of TO works/ reinforcements.
- Evaluation of infrastructure costs and connection costs (if applicable) involved in connecting the solution to the network. Where possible the infrastructure costs will be site specific to account for different site complexities.

Notes

- Categorisation of infrastructure and connection assets (if applicable) will follow the principles laid out in the CUSC Section 14- Charging Methodologies. Please note that for some designs, the connection boundary may be different from the standard definitions in the CUSC.
- Infrastructure costs are not directly borne by the tender participant but will need to be secured for by the tender participant. The infrastructure costs will be accounted for in the economic assessment stage by the ESO and do not need to be included in the commercial bid of the tender participant. The tender participant will need to account for any costs for the provision of security in their commercial submission.
- Connection charges (where applicable) and costs of user assets will need to be accounted for by the tender participant in their commercial submission.

Site Assessment

- A desktop review of sites will also be carried out as part of the connections review assessment to determine the available options for connecting the proposed solutions e.g. availability of spare bays, possibility of busbar extension etc.
- A high-level review of site complexities (civils, ongoing works at sites etc.) that could have an impact on infrastructure costs and delivery timescales.

Notes

- Information about land availability will be the responsibility of the tender participant and will not be an output of the connections review process in line with the existing connections process.

Output of the Connections Review Process

Following the connections review assessment process, the following information will be provided to the tender participants.

- List of TO works/ reinforcements required to enable a connection to the network.
- Lead time and earliest in-service delivery date (EISD) for the TO works/ reinforcements.
- High-level programme to deliver TO works/ reinforcements.
- Site-specific indicative costs involved in connecting the solution(s) to the network. Infrastructure costs will be provided in the form of a spend profile with an agreed price base. Where connection assets are applicable, the associated connection charges will be provided.
- A single line diagram with clear demarcations between the TO infrastructure assets, connection assets (if applicable) and user assets.

Additional Notes

Connection

- The outcome of the connections review process is not binding and is the best indicative view that can be provided at the point of issue. Any successful tender participant will still require a formal connection offer following the announcement of the tender results.
- At the point where the successful tender participants submit a connection application, it is recognised that the generation background may have changed from what had been studied as part of the connections review process due to new connection applications that may have been made or signed or connection agreements that may have been terminated.
- Successful tender participants who do not have a connection offer will need to submit a connection application no later than 2 weeks after the announcement of the tender results and application clock started no later than 1 week after, thereby allowing 3 weeks between tender results and connection clock-start. The TOs will take these timescales into account when developing the high-level programme.

- The connection application process will be also taken into account when developing the programme (i.e. 7 months – 3 months for offer and 3 months for acceptance and one month for NGESO to sign and return to the respective TO).
- All requirements and obligations from Grid Code, CUSC, NETS SQSS will apply. Any specific requirements will be reflected in the Bilateral Connection Agreement (BCA) when a connection offer is issued.
- Where applicable an indemnity agreement may need to be signed by a tender participant to accelerate works in order to meet the service start date. This will be confirmed following the conclusion of the connections review process.
- All user assets/ works will be delivered by the tender participant who will seek and ensure they have all necessary consenting rights, permits, land rights and access. The tender participant also needs to ensure they have the appropriate licenses to deliver the service.