

Stability Pathfinder

Request for Information Feedback

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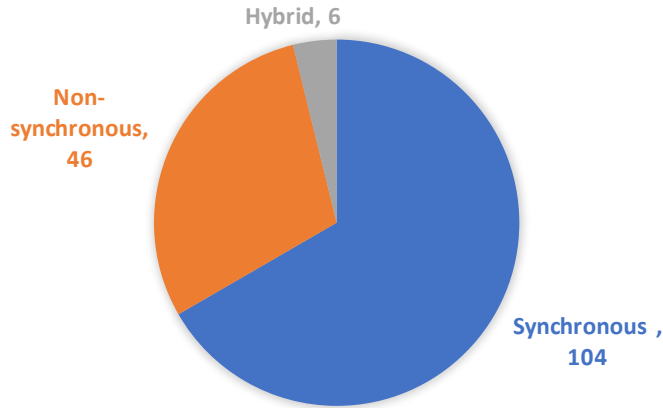
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RFI responses

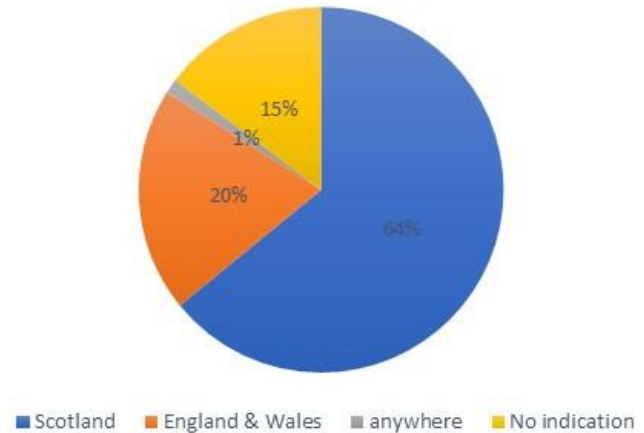
We published a Request for Information (RFI) in July as part of the stability pathfinder. We sought industry feedback to understand any technological limitations and associated timescales of potential stability solutions.

The RFI closed on Sep 13. We have received 28 responses with most of the responses indicating more than one solution in terms of location or technology or both.

NUMBER OF POTENTIAL SOLUTIONS



LOCATIONS OF POTENTIAL SOLUTIONS



Next steps

We have now determined our next steps based on the RFI feedback.

We are proceeding ahead in two phases.

Stability pathfinder phase one: GB solutions from 2020

In this phase we are looking at GB wide stability solutions to address our national stability needs.

We outline the associated timescales, acceptance criteria and commercial terms in the [Stability Pathfinder Phase 1 Outline Plan](#).

Stability pathfinder phase two: Scotland solutions from 2023

In this phase we are looking at Scotland solutions to address our Scotland stability needs.

We outline the associated timescales for this phase in this document.

Introduction to phase one and phase two

Phase one

- To meet our most urgent needs, we will run an accelerated tender process for phase one over Q4 2019 for delivery from as early as April 2020
- Due to the compressed timescale, we will be setting a high confidence threshold for solution providers to demonstrate technological and operational readiness
- Whilst being open to providers across the country, this first phase does not represent the totality of our requirements

Phase two

- In Q1 2020 we will launch a wider phase two process which will include feasibility study period to allow technical demonstration of solutions and will open the service to a wider range including those with lower technology readiness levels
- This requirement is concentrated on Scotland where we have assessed our needs in detail

RFI feedback summary

Thank-you for the comprehensive feedback we received. Our initial views on some of the common themes are interweaved below.

Feedback: Welcome the ESO offering opportunity for stability service
Welcome the ESO offering opportunity for longer contracts
Concern that TOs have a favourable treatment in the process

ESO comments: As part of the [network development roadmap](#), we set out our ambition to apply [NOA](#) type approach to network operability solutions. We are trialling this approach through all our pathfinders. The intent of the pathfinders is to compare commercial market solutions with transmission owner solutions and chose the most economic options. In the NOA [methodology](#), we consulted upon our approach to do this for high voltage solutions. We're open to ideas to improve the process currently set out in this methodology. There will be learnings which we aim to incorporate into the future works

Feedback: Understanding the ESO's intentions and timings on further development and requirement in the short term and long term in England & Wales

ESO comments: After phase 1 outcomes, we will reassess our needs in England and Wales next year and continue with the NOA approach to address these needs

RFI feedback summary

Feedback: Timescales are tight for new build to participate

Timeline should allow for connection agreements ahead of build contracts

ESO comments: We are considering this in the timeline for phase 2. We are also considering whether in phase 2 connection agreements should be considered along with a technical feasibility study

Feedback: Need for clarity on what a feasibility study contains

ESO comments: Along with the Expression of Interest (EoI) for phase 2, we will publish guidance on what the feasibility stage will contain. We envisage it to be a demonstration of technical specification based on a series of desktop based simulation tests

Feedback: The ESO should allow and align tendering into multiple services at the same time to spread the capital cost

ESO comments: We acknowledge that some stakeholders would value the opportunity to bid across multiple needs in one go. We are currently developing analysis tools and methods with a view to potentially being able to do this in future. Meanwhile, we are seeking to address our most urgent needs by way of independent tenders.

RFI feedback summary

Feedback: Suggestions that the ESO should be favouring based on technology types - synchronous vs non-synchronous technologies
Suggestions that the ESO should be favouring based on carbon emissions - high vs low carbon emissions technologies

ESO comments: We have a license obligation to ensure safe, reliable and economic operation of the electricity system. Based on this obligation we cannot discriminate based on technology and therefore not able to directly consider CO₂ emissions or technology type in selecting solutions

Feedback: Technology Readiness Level (TRL) was provided in some cases for components of solutions and some cases a single figure for the technology. You asked us to clarify TRL definitions e.g. if a technology is proven and is in operation somewhere in the world but not in the GB system, does it qualify for overall TRL9, TRL8 or TRL7

ESO comments: We explain our acceptance criteria for phase one in the stability pathfinder phase one outline plan. Due to the timescales for phase one, we are seeking established technologies. For phase two, we have allocated time for a technical feasibility study which allows providers to demonstrate technical capabilities for new technologies and innovative solutions.

RFI feedback summary

Feedback: Consideration of existing synchronous generators - suggestions that existing active power providers inherently providing stability should be allowed to participate in the tender

ESO comments: We are defining the stability need additional to what an economic market dispatch provides us so we can avoid additional actions to intervene in the market to ensure stable operation of the transmission network. For the stability pathfinders, we are currently considering procurement of a stability service that is over and above what the market actually delivers only and intend to develop our thinking on other stability products in parallel

Feedback: Non-active power providers prefer minimum year-round availability
Active power providers could find it challenging to meet minimum year-round availability. Active power providers prefer flexibility such as within-year availability windows

ESO comments: Due to the volatility of future generation and demand patterns, any future estimations will have error margins, we could not guarantee how often a service would be utilised will impact outturn vs current forecast for a provider

Phase two timeline

The dates below are indicative and will be confirmed as part of Expression of Interest Publication in January 2020

Milestone	Date
RFI Feedback deadline	13 th September 2019
Publication of RFI feedback and next steps	21 st October 2019
Expression of Interest	January 2020
Invitation to tender	March 2020
Feasibility study	April – July 2020
Feasibility study outcome	September 2020
Tender deadline	October 2020
Contract award	December 2020

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National Grid ESO, Faraday House, Warwick Technology Park,
Gallow s Hill, Warw ick, CV346DA

national**grid**ESO