# Request for Information

10th May 2021

## Energy storage for constraint management: Technical feasibility assessment

nationalgridESO

## Contents

## About National Grid Electricity System Operator (ESO)

Electricity is a modern-day necessity and the ESO exists because everyone deserves access to a safe, reliable and affordable supply. We all take for granted that we can make a cup of tea, cook dinner, travel to work, and stay connected to our loved ones on demand – but it only happens because the ESO keeps the power on 24/7. As the Electricity System Operator for Great Britain we are in a privileged position. We sit at the heart of the energy system, balancing electricity supply and demand second by second. We keep the lights on and the electricity flowing directly to where it's needed. We make sure British people, wherever they live, have the electricity they need at the flick of a switch because without it, society wouldn't function. We bring energy to life.

Providing reliable and affordable electricity is not enough. The energy we all consume needs to get cleaner, quickly. We are passionate about making a difference and delivering that change. We are here to help Great Britain and other countries reduce their carbon emissions so that our planet is safe for future generations to enjoy.

As well as day to day operation of the GB electricity system, we play a central role within the energy industry, looking at what the future may bring and how the market needs to adapt to deliver a greener future. We are facilitating the journey to net-zero by collaborating with others, sharing insights and analysis and running world-first innovation projects.

We know the energy transition must be affordable and that competition is vital for encouraging innovation and keeping prices as low as possible. We play a central role in developing electricity markets and the way they operate. We are helping to remove barriers to entry and improve access to electricity markets so that lots of different businesses, small and large, can participate and compete.

These actions will help us to keep the country supplied with the electricity it needs at lowest cost to the consumer. We continue to work collaboratively with industry and government to keep the lights on and protect consumers.

National Grid ESO at https://www.nationalgrideso.com/

## Background

National Grid Electricity System Operator (ESO) undertakes the role of system operator for the GB electricity system. One of our roles as residual balancer is to ensure that the physical flows on the system stay within the capability of the transmission network. Flows on the network are initially determined by energy markets. When more electricity wishes to flow over a circuit than is permitted this is known as a constraint.

The ESO manages these constraints by taking locational actions - by paying generators (or demand) in different locations to change their output (or consumption), thus changing the flow on the network. The amount the ESO has to pay network users to manage constraints in this way is known as the constraint cost.

As the electricity system decarbonises these constraint costs are expected to rise significantly, particularly between now and 2030, as renewable generation connects faster than new transmission capacity can be built. After 2030 planned increases in transmission network capacity are expected to significantly reduce the level of constraints.

On 25/02/21 the ESO launched a Constraint Management 5-Point Plan of measures to mitigate the expected increase in constraint costs. As part of this plan, the ESO wants to explore the technical feasibility of energy storage having a significant role in reducing network constraint costs between now and 2030.

The ESO intends to invite bidders to submit proposals to carry out a technical feasibility analysis and present a finalised report to key ESO personnel by December 2021. The report will outline details from 4 related work-packages including recommendations based on the analysis undertaken.

## Basis of response

The supplier is requested to provide information about their approach that will meet the stated requirements of National Grid ESO, as detailed within this document.

This RFI is solely a Request for Information from suppliers and is **not an offer by National Grid ESO to contract with any supplier.** Acceptance of a response neither commits National Grid ESO to award a contract to any supplier, nor limits National Grid ESO's rights to negotiate in their best interest. National Grid ESO will shortlist suppliers based on this RFI submission.

## Intention to respond / Points of contact

All correspondence and points of clarification relating to this RFI shall take place via the following email address:

box.Storage.Tender@nationalgridESO.com

National Grid ESO will endeavour to respond to all queries accurately and with minimal delay. Queries or discussion about the RFI must not be directed through any other National Grid ESO employee unless specifically authorised to do so in advance.

## Cost of preparation of response

Each supplier will bear its own costs in preparing a response to this RFI and any associated work effort regardless of whether a contract is awarded. National Grid ESO will not accept any liability or responsibility for any costs incurred by the supplier in preparing a response to this RFI document or any associated work effort.

## RFI review and supplier response

The value of this procurement is under the threshold of when Utilities Contracts Regulations apply. The RFI responses will be reviewed based on your perceived ability to meet the full scope of the RFI. National Grid ESO may also undertake standard due diligence checks including but not limited to commercial analysis, insurances, credit rating/financial health, risk, capability & capacity.

## RFI procedure and timeline

The timeline for this RFI is documented below:

| Activity | Date |
|---|---|
| **RFI issued to suppliers via Find-A-Tender** | 10th May 2021 |
| **Information webinar for potential suppliers and industry to attend** | 26th May 2021, 13:00-14:00hrs BST |
| **RFI response to be submitted to National Grid ESO** | 10th June, 17:00hrs BST |
| **National Grid ESO to respond to Suppliers and confirm whether selected for short-list** | 16th June |
| **Shortlisted suppliers to submit an RFP response to National Grid ESO** | 7th July |
| **Supplier presentations** | 19th July |
| **Contract awarded** | 21st July |

## Request for Information submission details

This document invites consultants that would like to bid for this work to send us information outlining their capability to deliver it successfully. Responses must be provided by **17:00hrs on 10th June 2021.** Please send the details outlined below, along with key contact information to:

- box.Storage.Tender@nationalgridESO.com

National Grid ESO will use this information to select a shortlist of consultants who will subsequently be invited to submit a full proposal. All applicants will be notified by Wednesday **16th June,** with the shortlisted candidates being invited to submit a full proposal by **7th July 2021.**

Please refer to the associated scope document for a **description of the Scope of Work**.

## Information we require

### Relevant experience and capability of your consultancy

- Please summarise the work your consultancy has previously conducted that gives you the relevant experience that would help you to be successful in the work we require.
- Please summarise your relevant capability across the key areas highlighted in the **Scope of Work,** confirming your current capability with an explanation of how that capability is delivered, relevant clients for that capability and any associated evidence.
- Please keep this summary to 4 pages and do not include any confidential information.

### Relevant experience of the staff you would use

- Please enclose the CVs of the staff in your consultancy that you would expect to use to deliver this work.
- Please limit the number of CVs to no more than 6.
- At this stage the names included will be treated as indicative and not a firm commitment.

### Additional information to include

- Suppliers are requested to provide the name, job title, address, telephone number and email address of the main point of contact in relation to this RFI.
- Describe estimated timescales to deliver project.
- All responses must be in English or a full English translation must be provided at no cost to National Grid ESO.