New MW Dispatch service - stakeholder input request

Introduction

Our MW Dispatch Regional Development Programme (RDP) currently focuses on specific areas of Great Britain's electricity network – the South West and South East of England. The objective of this project is to develop an alternative, lower cost market option for distributed energy resources (DERs) to provide a transmission thermal constraint management service to the ESO. This service will complement existing routes to market which are the Balancing Mechanism and Wider Access.

Because this is a new service, we want to work with you – our stakeholders – to help develop it.

We've created a series of questions we would like you to respond to by 6 August. Your responses will help us develop the service specification and final design. It will help us make sure it meets all the basic requirements of various parties, essential to the success of a new service.

What is the new service we are proposing?

We are introducing a market-based approach to managing transmission constraints in the MW Dispatch areas. A new transmission constraint service would look to compensate DERs' generation and battery storage for reducing their output at times of system need (MW export in the case of battery storage). This would come after an instruction initiated by NGESO.

In the first instance, this service is being developed for DERs who have visibility and control connection conditions in their connection agreement with their distribution network operator (DNO). It is a means to providing payment for any reduction in output instructed by NGESO.

We also intend to open this service to other DERs who are not already participating in the Balancing Mechanism (BM) or Wider Access, as a possible revenue stream in the future.

The DNO's Distributed Energy Resources Management System (DERMS) and/or Flexibility Platforms will be used to issue the service instruction to DERs.

We are proposing a relatively simple service design in the first instance, to enable delivery of the systems' capabilities and end user testing in Spring 2022. Thereafter we can develop and enhance the service, with your input.

Why is this new service needed?

RDP whole system studies showed that operationally controlling the output of new DERs in the South West and South East is more economic than the alternative transmission build solutions to provide additional network capacity. It also means that more DERs can connect sooner.

New DER connections in the RDP areas of 1MW and above are therefore required to provide operational visibility and commercial controllability as a condition of their connection agreement with the relevant distribution network operator (DNO).

There are existing technical and commercial ways to fulfil this obligation (e.g. through the Balancing Mechanism or Wider Access). However, these options require substantial capital investment from smaller DERs as well as frequent submission of commercial operating parameters.

The MW Dispatch RDP is developing a lower cost market option for DERs, providing a route to market as an alternative to the BM or Wider Access.

Who should respond?

We are looking for views on this proposed new service from:

1) DERs who have visibility and control connection conditions in their connection agreement with their distribution network operator (DNO) in the following areas:

Distribution network operator's area	Grid Supply Points
UK Power Networks	Bolney Ninfield Sellindge Canterbury Richborough
Western Power Distribution	Abham Alverdiscott Axminster Bridgwater Exeter Indian Queens Landulph Taunton

2) Other DERs in the areas listed above that do not have visibility and control connection conditions

3) DERs in other, non-RDP regions

How do I respond?

Please send your responses to the questions below to box.WholeElectricitySystem@nationalgrideso.com by 6 August.

You can listen to our webinars held on 12th July with WPD and 28 July with UKPN which provide more information about RDPs, the new service and why it's needed. Please note; the webinars were targeted at DERs that have visibility and control connection conditions in their connection agreement and that not all DERs have these terms.

Questions

Question 1	Is the service described one that you would consider providing to NGESO? If not, why?
Question 2	Do you foresee any issues with a continuous service approach where you could be asked to provide a service at any time (except for periods of declared unavailability)? If yes, please provide more details. *(See detail under 'more information' below)*
Question 3	What are your thoughts on the proposed pricing approach i.e. that the service will attract a utilisation price only? *(See detail under 'more information' below)*
Question 4	How often would you like to be able to update service pricing information? *(See detail under 'more information' below)*
Question 5	What are your views on the ESO using DNO infrastructure to instruct transmission services?
Question 6	This service is a transmission constraint management service from DERs with instructions being facilitated via the DNO's infrastructure. How should liabilities across each party be captured contractually?
Question 7	Can your DER units operate in this way or are there any barriers to this design? (See detail under 'more information' below)
Question 8	Are the minimum instruction times and service assumptions reasonable / practical? If not, why not?
Question 9	Does alignment with existing BM rules/parameters, including response times, cause any issues? If so, could you give an example?
Question 10	Looking at the two example instructions set out below, which basis for settlement do you prefer? And why?

Question 11	Would you be interested in aggregating units for service provision? If so, what volume and technology type?
Question 12	What enhancements / improvements might providers like to see to the initial service design set out here?
Question 13	How should we engage with you as we develop this MW Dispatch service further? For example, do you think a DER focus group would be beneficial?

Feel free to provide any further feedback not explicitly covered by specific questions in your response.

More information

This section provides more details on ESO's initial ideas on service requirements.

The service requires generators / storage in export mode to reduce their output from current operating levels to 0MW (in the case of storage assets this would bring them back to a 'float' position).

Proposed service parameters

- It is anticipated that the service will operate as a continuous market, the same way as the Balancing Mechanism operates today. Providers will be able to update their prices regularly.
- Service provision will attract a utilisation payment only. It is not proposed that an availability payment will be made.
- The minimum unit size will be 1MW. Aggregation of units can be considered where an instruction on such units is effective on the same GSP. Each unit will need to be able to receive individual instructions to fulfil the overall service volume.
- DERs will be required to have 24/7 availability to provide the service (unless the DERs or DNO declares the unit unavailable via a pre-determined process).
- Instructions will be issued from NGESO via the DNO Active Network Management (ANM)/Distributed Energy Resource Management (DERMS)/Flexibility schemes.
- These same systems will gather appropriate metering data for the purposes of settlement and performance monitoring, carried out by NGESO.
- We propose a minimum instruction time of 5 minutes, with a maximum time of 89 minutes to align with existing BM parameters.
- As for the BM, we propose that service providers should be able to respond to an instruction within 2 minutes (i.e. instruction communication time + instruction processing time + unit response time (ramp rate) ≤ 2 minutes).
- The basis on which payment will be made is still being considered and we would appreciate your views (see examples below)
- Providers will be able fulfil their connection terms and conditions by signing up to one of the proposed routes but must not provide transmission constraint management services through multiple routes (e.g. through the basic RDP route and the Balancing Mechanism) for that same unit.

Example Instruction 1

Figure 1 shows what the basic instruction to DERs for this service could look like. This type of simple instruction aims to make sure that all DERs can participate and provide a way of meeting connection conditions. In this example, DERs would be settled against their registered export capacity level rather than actual measured energy volumes.

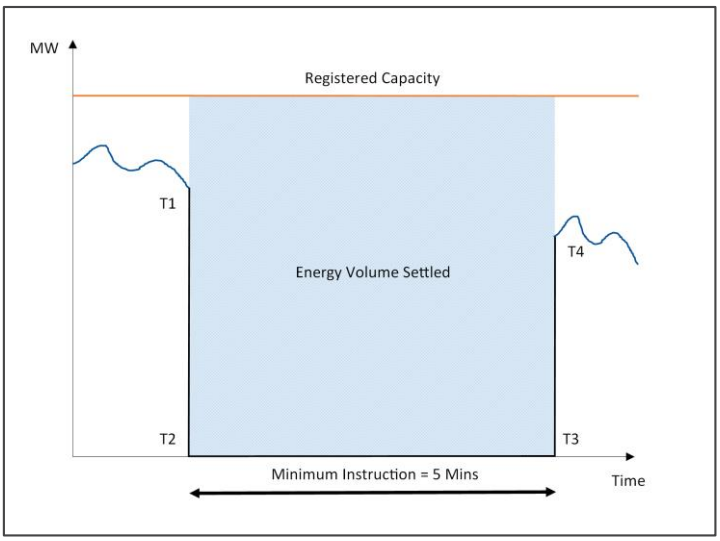

Figure 1 - Basic MW Dispatch Service Instruction

Example Instruction 2

Figure 2 below shows an alternative way to settle for service delivery. In this example, NGESO would take snapshot of output at time T1 and assume straight line delivery for the duration of the instruction.

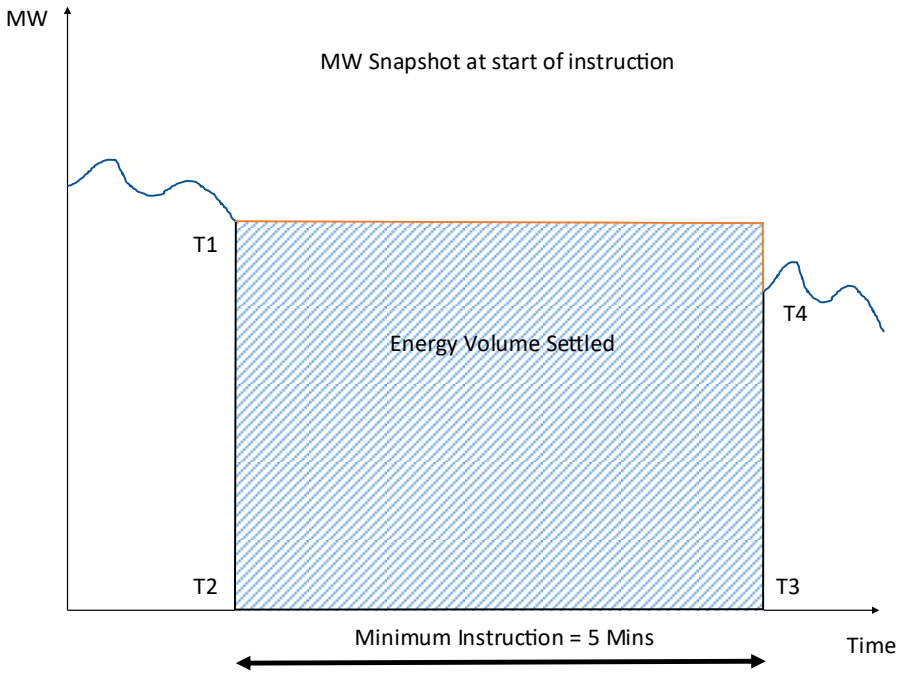

Figure 2 – Settlement based on MW snapshot