

System Operators, Transmission  
Network Owners, Distribution  
Owners, Generators, Suppliers,  
Traders, Power Exchanges,  
Aggregators Customers and  
Other Interested Parties

Email: [esoperformance@ofgem.gov.uk](mailto:esoperformance@ofgem.gov.uk)

Date: 21 July 2020

Dear Colleague,

### **Black start Strategy and Procurement Methodology: the Authority's decision**

This letter comprises the Authority's<sup>1</sup> decision to approve the new black start Strategy and Procurement Methodology (the "Methodologies"), submitted by the Electricity System Operator ("ESO") on 3 April 2020. The Methodologies were submitted pursuant to Part A and Part B of Special Condition 4G of the ESO's Electricity Transmission Licence. The Authority has determined to approve the Methodologies in accordance with Part C of Special Condition 4G.

### **Background**

Black start is the process used to recover from an unlikely event which results in the full or partial shutdown of the electricity transmission system. It involves isolated power stations being started individually without an external power supply, and then being gradually reconnected in order to re-energise the system as a whole. The ESO has an obligation under the Grid Code<sup>2</sup> to ensure black start capability is available at all times.

On 1 April 2017, we introduced a regulatory framework for determining the allowed revenue derived from black start that the ESO may recover each year.<sup>3</sup> In addition to the submission of the Methodologies, the ESO is required by Part E of Special Condition 4G to submit the total costs associated with the provision of black start capability to the Authority

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<sup>1</sup> The terms "we", "us", "our", "Ofgem" and "the Authority" are used interchangeably in this document and refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

<sup>2</sup> As set out in Grid Code CC6.3.5 and OC9.4.7.12.

<sup>3</sup> <https://www.ofgem.gov.uk/publications-and-updates/decision-electricity-system-operator-incentives-april-2017-modification-standard-and-special-licence-conditions-transmission-licence>

for an *ex post* assessment at the end of each Relevant Year. We then determine whether the total costs claimed were incurred in accordance with the approved Methodologies.

### **The ESO's submissions**

On 3 April 2020, the ESO submitted the Methodologies to satisfy its licence and code obligations. The ESO also gave industry stakeholders the opportunity to provide feedback on its draft methodologies via a 30 day consultation prior to submission to the Authority. The ESO then incorporated this feedback, which was generally supportive, into its submitted version of the Methodologies.

Part A of Special Condition 4G specifies that the Black Start Strategy must provide an explanation of the short, medium (one to three-year time horizon), and long-term (beyond the three year time horizon) strategy for black start provision. This must include details on the Restoration Approach<sup>4</sup> selected by the ESO, the required Minimum Service Level<sup>5</sup> to contract, consideration of an appropriate Restoration Time,<sup>6</sup> and identification of potential new technologies and approaches for black start. The Black Start Strategy sets out how the ESO will approach the delivery of black start, which in turn, informs its Procurement Methodology.

Part B of Special Condition 4G requires the production of a Procurement Methodology for the purpose of determining that procurement of black start during a Relevant Year is "economic and efficient." This must include an explanation of how the ESO will ensure that the Minimum Service Level, as specified in the Black Start Strategy, will be met and a methodology for determining the value to current and future electricity consumers in GB. It must also include an explanation of the process by which the ESO will procure services and how it will assess offers by providers, a methodology for determining the value of each black start contract, and the methodology for determining the efficiency of black start Feasibility Studies.<sup>7</sup> The Procurement Methodology thus forms the basis for our *ex post* cost assessment process.

The Methodologies submitted to us this year are similar to the previous iteration and propose to continue to build upon the work streams established in previous years. However they differ in the fact that they now provide more clarity on the ESO's black start procurement processes and future procurement events. This is in line with our 2019

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<sup>4</sup> The method by which the licensee would black start the National Electricity Transmission System.

<sup>5</sup> The minimum service level required to provide an appropriate black start Capability for Great Britain.

<sup>6</sup> The time the licensee expects it would take to energise a part or parts of the National Electricity Transmission System following a Total Shutdown or Partial Shutdown (each as defined in the Grid Code).

<sup>7</sup> Work undertaken by the licensee and any potential New Provider in order to assess the ability of the potential New Provider to provide black start services.

decision on the previous iteration of the methodologies,<sup>8</sup> where we asked the ESO to set clearer milestones for progress to allow the industry to understand the direction of travel for black start services in GB. This year, the ESO has included a high level overview of the timelines for its future tender plans and Distributed Restart project in this year's iteration of the Methodologies. It has also provided more information on its plan to build on the competitive procurement events that have been completed in the Northern, Southwest & Midlands zones, as well as set out the process for launching a competitive procurement event in the South East zone.

### **The Authority's decision and next steps**

The Authority considers that the Methodologies submitted satisfy the requirements set out in Special Conditions 4G.3 and 4G.4, and moreover have implemented the improvements requested by us in our decision on the previous iteration of the Methodologies. In reaching our decision, we have also taken into account the consultation responses from industry stakeholders. Accordingly, pursuant to paragraph 4G.5 of Special Condition 4G, the Authority has determined that the Methodologies should be approved.

As noted above, the Methodologies will now form the basis of our assessment of any of the end of year *ex post* total costs assessment (as detailed in Part F of Special Condition 4G). Pursuant to Special Condition 4G.7, the ESO must now publish the approved Methodologies on its website as soon as practicable. The ESO must also submit any revision to the Methodologies for our approval by 3 April 2021 (Special Condition 4G.9).

In next year's iteration of these methodologies, we would like to see the ESO expand further on its intentions for the Distributed Restart Project which is due to reach completion in December 2021. Therefore, we ask the ESO to propose a plan in the next iteration of these Methodologies for how it will integrate the intermediary and final results of the project in its short, medium and long term strategy for black start provision.

We also note that in the version of the Black Start Strategy approved by the Authority on 29 June 2018, the ESO stated that significant levels of wind generation on the system are now able to integrate into restoration plans, and it committed to liaising with developers as to how restoration could be facilitated in this way. In this year's iteration of the Black Start Strategy, the ESO committed to further engagement with the wind industry over the next year in order to understand the capabilities of wind generation and build its knowledge and skill base to be able to use more wind generation earlier within a restoration. As a result of

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<sup>8</sup> The decision is available at: <https://www.ofgem.gov.uk/publications-and-updates/20192020-black-start-strategy-and-procurement-methodology-authority-s-decision>

the ESOs 2018 and 2020 commitments, we would expect that in the next iteration of these Methodologies, the ESO will set out how it is integrating wind generation into its restoration plans.

Given the ESOs 2025 vision, where it commits to being able to operate the system carbon free<sup>9</sup> and its forecasted changes to the generation mix in GB,<sup>10</sup> we also request that in the next iteration of these Methodologies, the ESO proposes as part of its long-term strategy the steps it intends to take to maintain sufficient black start capability whilst facilitating a transition to a low carbon energy system.

If you have any queries regarding the information contained within this letter, please contact Alastair Owen at [Alastair.Owen@ofgem.gov.uk](mailto:Alastair.Owen@ofgem.gov.uk).

Yours sincerely,

**Leonardo Costa**

**Senior Manager, Systems and Networks**

Duly authorised on behalf of the Gas and Electricity Markets Authority

**21 July 2020**

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<sup>9</sup> The ESOs commitments for 2025 are outlined in its RII02 business plan. It is available at the following address: <https://www.nationalgrideso.com/document/158051/download>

<sup>10</sup> The ESOs forecasts can be found in its Future Energy Scenarios (FES). These Scenarios represent a range of decarbonisation pathways and associated changes to the types of generation in GB. Further information can be found at the following address: <https://www.nationalgrideso.com/future-energy/future-energy-scenarios>