

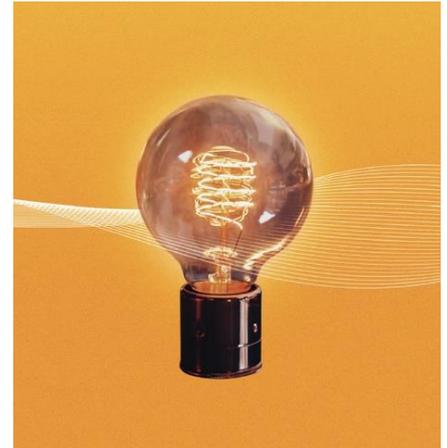
Short Term Operating Reserve (STOR)

An update for market participants

The ESO's role is to ensure that supply and demand are balanced and power flows across Great Britain's electricity system safely and reliably. To do this the ESO contracts for several different services including reserve products. The largest of these reserve products is called Short Term Operating Reserve, or STOR, an overview of this product is included below.

The future of STOR as a reserve product has recently been reviewed as part of our System Needs and Product Strategy. Our Response and Reserve Roadmap publications lay out our plans for delivering changes to the service. In addition, we have recently reviewed our internal guidance within the ESO to ensure that our vision, in terms of the purposes and use of STOR, is aligned with our thinking as set out in these documents and our Balancing Principles statement.

The STOR market is liquid and diverse, benefitting from significant participation from a wide range of technologies. With this in mind, we understand that there is a high level of interest in its usage, from a range of stakeholders. We recently received questions about the usage of STOR at the October Electricity Operational Forum. The purpose of this note is to share our thinking about the usage of STOR and what you can expect from us going forward.



STOR: An Overview

What is an Operating Reserve Requirement?

The ESO holds an Operating Reserve Requirement from 4 hours ahead of time to real time, to take account of demand forecast errors, plant losses and market imbalance. The operating reserve requirement is met by headroom and footroom on market synchronised machines, additional actions taken by the ESO via the Balancing Mechanism, trades and contracted reserve products.

What is STOR?

Short Term Operating Reserve (STOR) is a contracted reserve product and as such STOR can make up a proportion of the operating reserve requirement. The proportion of the operating reserve requirement met by STOR is determined by considering the technical system requirements. We require individual STOR providers to be a minimum of 3MW and to be able to sustain output for 2 hours. We require STOR to be available within 240 minutes, although a response time of 20 minutes or less is preferable.

When does the ESO need STOR?

The ESO procures STOR for periods when the demand profile changes rapidly. These times vary through the STOR seasons but the procurement windows are generally designed to cover the morning and evening periods.

How much STOR is procured?

STOR is contracted via a competitive tender process with 3 tenders running across the year, with the ESO targeting to procure a minimum of 1.8GW. Over 4GW of STOR has tendered for contracts in each season over the past 6 years, with as much as 6GW tendering for contracts for the current STOR season.

Short Term Operating Reserve

What is the concern?

The ESO procures short term operating reserves to manage plant losses, generation shortfalls and market imbalances. We have been able to procure large volumes of flexible STOR in recent years as this has been offered to the market at an attractive price.

Some industry participants have raised concerns about the impact of spill payments on STOR pricing. This has been addressed through BSC modification P354, which was approved in June 2018 and will be implemented in April 2020. We have also heard concern from industry that the increased utilisation of STOR has impacts on the visibility of balancing actions and cash out. As the ESO we want to ensure that we are balancing the system as effectively as possible, facilitating ancillary service and wholesale market efficiency and aligning with the direction of BSC modifications.

What are we doing about it?

To continue to work with industry ahead of the implementation of P354, we have raised [BSC Issue Group 74](#) to discuss the impacts of utilisation of STOR on service visibility and cash out and we welcome participants to join these discussions.

The electricity system continues to evolve at rapid pace. Through this time we will continually review processes and procedures to ensure that we are working to achieve the principles set out by the forward plan. At our October Electricity Operational Forum we highlighted that we had recently reviewed our STOR operating guidance and we provide further details on this below. The guidance clarifies that STOR instructions should be concentrated on managing short term issues. For example, plant losses, generation shortfalls and market imbalance.

The review highlighted the importance of STOR and we expect this core operational tool to continue to be used regularly to support us to manage the issues described previously. We expect the frequency and duration of instructions to vary as power system operation is becoming increasingly sophisticated. However, going forward we do not expect to see the same frequency of longer duration STOR runs that we have seen in recent years, particularly 2016 – 2018, as usage will be more aligned to the definition of the product. Our expectation is that the majority of instructions will be less than 2-3 hours.

We believe that this is in the best interest of STOR market participants and the wider industry as it gives greater certainty on the nature of STOR usage.

Capturing Your Feedback

You asked us to lower barriers to entry into our reserve markets, to allow our control room to easily access reserve providers.

You Said...

...We Did

We have delivered the capability to dispatch Fast Reserve through our new web-based communications platform. We are in the process of upgrading our systems. Our current intention is to migrate STOR onto this platform in Q3 2019.

You asked us to simplify our standard contract terms to make it easier for providers to understand their rights and obligations.

You Said...

...We Did

We are consulting on, cleaning up and shortening our balancing service contracts. Further, we have removed STOR runway and enhanced optional STOR as part of our rationalisation work.

You asked us to facilitate entry into the Balancing Mechanism.

You Said...

...We Did

We are working to improve and create new routes to market. In our Wider Access Roadmap we outline nine commitments to facilitate entry into the Balancing Mechanism.

You asked us to provide clear information about how and when we would undertake work to improve our existing balancing product suite.

You Said...

...We Did

Since publishing our system needs and product strategy document we have created a number of roadmaps to outline our commitments to product development in specific service areas. Earlier this year we held industry workshops and discussed design options for the new response products.

What can you expect from us going forward?

- The ESO forward plan sets out our aspirations and we will continue to commit to delivering on these objectives.
- We recognise the importance of creating equal opportunities and will continue to contribute to industry working groups on these issues. Specific to STOR, we welcome your participation in the upcoming BSC Issue Group 74.
- We believe the current operating guidance on the usage of STOR is simpler and more transparent. As such this is aligned to meeting the objectives set out in our forward plan, the feedback we have received from the industry and the direction of P354.
- While it is important to continue to review the guidance as the system and market develops, we do not envisage a significant deviation from this guidance for the coming STOR seasons, as it is well aligned to meeting our objectives set out above.
- The below roadmap sets out some of the key milestones related to the STOR product over the next 18 months.

Our Key Milestones

