

All Industry

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Dear Colleagues,

Auction Trial for Frequency Response

Over the past year, we have been working with the industry to identify improvements and enhancements to our existing balancing services and markets that will make them fit for the future. This process started with the publication of the System Needs & Product Strategy document and consultation in June 2017, where we sought feedback from the industry both on specific issues and on the direction of travel for future reform. This was followed in December 2017 by the first Product Roadmap covering frequency response and reserve services, which set out our work plan based on the feedback received through the consultation.

One of the more significant pieces of work outlined in the Product Roadmap is the trial of a different method of procurement for a small volume of frequency response. Since the publication, we have identified a preferred supplier to deliver the trial, completed the initial design work based on industry views, and are now finalising contractual discussions to deliver and operate the platform.

Summary of Auction Design

The trial will last for 24 months from the end of the development phase to ensure that we can test different parameters and approaches prior to full implementation. The auction itself will have the following characteristics:

- The auction will be held every Friday morning with results being published by early afternoon. The weekends are historically the periods when frequency response requirements are higher, and therefore this will allow a greater volume to be made available to non-traditional providers such as wind.
- The first available delivery window will start at 23:00 on the same day. This will facilitate access to the market by technology types such as wind and DSR which are less forecastable.
- The auction will procure four products: high frequency dynamic response, low frequency dynamic response, high frequency static response, and low frequency static response.
- The auction will optimise procurement across different products using pre-defined exchange rates calculated in a transparent manner. This will make the trade-off between buying, for example, static and dynamic more transparent.
- The products will be auctioned by four-hourly EFA (Electricity Forward Agreement) blocks over the week.
- Providers will have the ability to nominate sequential blocks within day as 'all-or-nothing' bids.

- Buy orders will be published prior to the auction, and will consist of information on volume requirements to be procured for the following week.
- The auction algorithm will seek to minimise the cleared price rather than maximise economic welfare. This means that bids will be accepted in price order without regard to their size.
- Providers will have the ability to specify bids as being fully or partially curtailable. Such bids will only be curtailed if they straddle the buy order, i.e. without curtailment they would be rejected as they would result in buying response above our maximum requirement.

We will be holding a webinar on 27 September to go into detail on the design and operation of the auction platform and algorithm. The webinar will detail the structure of the auction, the available products, and the process for providers in more detail, and will give the industry the opportunity to ask questions.

Development of the Auction Trial

In the Product Roadmap in December 2017, the rollout date for the auction platform was given as December 2018. This date was subsequently clarified in the ESO Forward Plan as being by the end of the 2018/19 financial year. Through workshops with the supplier, and in discussions with stakeholders at various events, the required functionality of the auction platform has become clearer. To minimise barriers to entry of new technology types and maximise the level of competition, the auction will need to procure frequency response products both separately and together, linked in time and also separately. This level of functional design will require the creation of a 'clearing engine' using a new complex algorithm, rather than being able to use an existing algorithm and trading platform.

We consider this more complex functionality to be essential to delivering an auction that is beneficial to all parties. It is vital that we trial new procurement routes thoroughly and in detail to maximise the learning available and ensure that the issues stakeholders have raised with our existing procurement methods are fully addressed. Ultimately our aspiration is to move procurement of all balancing products closer to real time, but this will not be possible without a firm foundation and understanding of potential benefits and pitfalls.

The current estimated date for delivery of the trial has therefore changed to June 2019. However, we will be working closely with the supplier to identify areas where time can be saved through agile sprints or parallel working, and we will ensure that the industry is kept up to date with developments as they happen. We will also be looking at how we can engage with providers throughout the development process, potentially introducing a scaled down version of the platform prior to a full rollout or involving providers in the final testing stages.

Next Steps

As mentioned above, we will be holding a webinar to go through the design of the auction trial in more detail on 27 September, more information can be found through the following link: <https://www.eventbrite.co.uk/e/auction-trial-for-frequency-response-tickets-49731941576>.

Once we have finalised the contract with our preferred supplier, we will also be publishing the development timeline for the project so parties can see when each phase of the project is due for completion.

Yours sincerely,

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