2019/20 End of Year Event Responses to questions from Q&A sessions

Role	Question	Answer
1	Could you explain more about the interconnector trading tool? What extra ability does this provide compared to how the ESO operated before this tool?	It is a new trading tool to automate the process of generating and notifying the requirements for interconnector trades. This tool allows counterparties to profile their submissions on an hourly basis, automates the assessment process, and generates confirmations for successful participants and notifications for unsuccessful participants. The automation of the process allows the ESO to quickly assess hundreds of submissions and automatically select the best trades to meet requirements on an hour by hour basis. Prior to this new method of working, requirements for interconnector trades were notified to counterparties as a block requirement over a set period of hours. Responses were manually assessed, confirmed and executed. The process was time consuming and inflexible. The previous process limited market participation and potentially created barriers to counterparties, which would lead to sub- optimal costs.
1	The current BM registration process is too lengthy. Could the BM upload schedule be moved to monthly?	We are using continuous improvement techniques to regularly review our BM registration processes such that they better align to the needs of new connections. A monthly process is par and will be part of that consideration, though our current focus is on more flexible approaches as we believe they will be more economic and efficient. There is added complexity because the BM upload schedule must also align with BM updates that allow new functionality to go live. Due to this limitation, there will be occasions when the BM upload schedule must take precedence, requiring a short delay to any BM upload schedule.

1	What has the ESO done over 2019-20 to improve forecasting accuracy?	In first quarter of the 2019-20 Forward Plan, ESO redesigned the mathematical modelling it uses for demand forecasting, within the constraints of the Grid Code (<u>OC1.6 The Company Forecasts</u>). Since the introduction of a new forecasting system in July 2019, the demand forecasting performance noticeably improved.
		Energy Forecasting System (EFS) incorrectly dealt with the timing of Cardinal Points (CPs)1 which originated by assuming that the National Demand (<u>referred to as</u> <u>INDO on BMRS</u>) reflects the true GB customer demand. With the advent of large amounts of distributed generation, both weather-driven (currently ~6.5GW wind, ~13GW solar) and nonweather driven (-15GW), this assumption no longer holds.
		The previous forecasting system, Energy Forecasting System (EFS), did not give the timing of the Cardinal Points correctly. It was particularly noticeable for the CPs whose activity period corresponds with the timing of solar generation ramping up and then ramping down.
		The new system, Demand Forecasting Tool (DFT) performs demand calculation in a way that is insensitive to the differences in the distributed/embedded generation. As a result, it identifies National Demand CPs timings correctly and gives correct half hourly shape.
		This change in methodology has led to an improvement of about 20% across the accuracy of all Cardinal Points.
1	What actually is FATE-3 and what was the cause of the delay to this deliverable?	This project is to deliver improvements to the Frequency monitoring tool. The FATE-3 project has a dependency on new phasor data infrastructure and establishing a connection to Scottish Power Transmission. Our Inertia Monitoring projects also require this, so we have adjusted the timing of the FATE-3 project such that it will be delivered in line with when the new infrastructure is available to use. The new timing also looks to align with the availability of new data centres, hence optimises code development for FATE-3. This originally caused a revised date to Q1 20/21. We anticipate revising the

		date to Q4 20/21 as some of the dependent works has been affected by our COVID-19 response.
2	Are you going to allow the API to be used by small scale gencos, CVA registered, who want to be BMUs?	Yes, this will be the case. We will keep industry updated on the progress and when we expect to see this.
2	Why was there a clawback clause whilst generating in the Phase 1 stab tender; it greatly increases risk of participation for renewable gen that cannot predict output	Stability Pathfinder Phase 1 was looking for solutions which could be delivered relatively quickly (before April 2021). This led to a focus on synchronous technologies as these were already proven on the network. The clawback was to incentivise the provision of stability at zero MW to meet our system needs. We classed generating as 'unavailable' (provider forgoing availability payments) as a proxy for ensuring we weren't paying for inertia we'd get anyway from synchronous generators. For phase two we are looking to broaden participation to a wider range of technologies by including a feasibility study stage and removing the zero MW requirement.
2	What changes are the ESO planning to manage CM Prequalification e.g use of docusign, phone queries, pre check of submissions etc	The Capacity Market Operations Team are looking into the ways in which they can adapt their Business Processes in light of COVID-19 and working from home. Some of the changes they are introducing include a new Salesforce system to enable assessments to be undertaken whilst working remotely and updating existing guidance to support customers through the process. They are also looking into other new functionality such as Docusign and how the team can offer support over the phone as this is currently not available. Last year Pre Validation checks were widely used by applicants and this service will continue to be offered to those who submit applications early again this year. The team are also in the process of organising a virtual customer event to replace the annual conference. In order to ensure the event meets customer needs a short survey will be sent to all Main Admins in the coming weeks to ask how the team can support customers through Prequalification in 2020 and what topics they would like to see at the event.
2	ESO continued to allow bids from contentious Project CLASS (in FFR / Fast Reserve), undermining markets. Should ESO suspend until Ofgem make a final ruling?	Earlier this year Ofgem consulted on the regulatory treatment of CLASS as a balancing service in RIIO-ED2 which runs from April 2023. National Grid ESO responded to this consultation along with other stakeholders, and Ofgem are now considering all responses. In RIIO-ED1, we have facilitated the

		participation of the CLASS technology in the provision of balancing services as we would for any other provider. Mindful that the Ofgem consultation considers the treatment of CLASS from April 2023, we see no need to change this position at this time. We will, however, continue to ensure that any perceived conflicts of interest are highlighted to Ofgem, noting concerns from other industry parties.
2	Do you acknowledge the disjoint in ESO between TCR imposing significant increase in TNUoS on T-connected services and Pathfinder team? (Took a customer to spot)	The ESO has been directed by Ofgem to fulfil Ofgem's Targeted Charging Review outcomes. We are supportive of the intent of those proposals. However, we recognise that some of the reforms may make it more difficult for participants in our Pathfinder programmes to be able to offer services competitively. We believe that we have acted very quickly on the feedback provided by a customer, and have since both engaged with Ofgem on the Pathfinders and TCR impact, as well as raising alternates in the associated TCR Work Group to account for such connections. We will continue to engage with Ofgem in areas where we consider there may be undue impacts to early competition and raise changes or solutions as appropriate to tackle these.
2	When will frequency response services be unbundled to permit separate primary, secondary, high submissions? And at day ahead?!	Primary and Secondary response services cannot be unbundled. Instead, response reform is replacing PSH with new services that provide a variety of benefits, including unbundling Low Frequency and High Frequency response where possible. ¹
2	As we move to day-ahead procurement, would it be possible to show the units used for balancing services in the BM?	As we move to day-ahead procurement, we will continue to assess, update and publish all relevant data for balancing services on our website. <u>https://www.nationalgrideso.com/industry-</u> information/balancing-services
2	Is it reasonable that parties that already have reactive power capability that costs little, if anything, to provide, should be paid to provide it?	We are aware that the default payment mechanism for mandatory reactive power provision has not been reviewed for many years. We will publish our strategy for the review of reactive power in Q3 2020/21. This will follow stakeholder engagement throughout Q1 and Q2 and learning lessons from the voltage pathfinders, power potential project and review of efficient reactive power flows between transmission and distribution networks.
2	Reactive Power costs have reduced by £8m this year compared to 18/19. What are you doing differently to manage voltage operationally?	We are always reviewing the reactive power requirements across the network. We have seen the return of some key transmission assets which reduces

¹ Corrected 16 June 2020

		the need to access reactive power from mandatory providers. Utilisation volumes for 2019/20 are only 4% down on 2018/19. The default payment rate has further reduced costs as it has been up to 20% lower than 2018/19 for the same month.
2	How does ESO see the impact or opportunity from the Market-wide Half Hourly Settlement being consulted by Ofgem?	The Market Wide Half Hourly Settlement reform has the potential to provide the ESO with significantly more information. We are hoping that the outcome of the reform is that we are able to access this information which gives the opportunity for flexibility in our processes and approaches. Further detail is also needed on the impacts of the reform on network charges and if any change is required.
2	In MBSS, will ESO publish MFR capacity (MW) as well as utilisation (MWh)? Does MFR cost include holding costs?	BM Generator Response which is MFR, includes holding payments for the Mandatory Dynamic Response Service. It is based on Primary, Secondary and HF response volumes that the unit can provide at 0.5Hz. These volumes are also published.
3&4	Is the ESO able to control TOs in relation to connection offers or is it just a post box for any TO requirements outside the CUSC templates?	The phrase 'control' is difficult to interpret. The ESO forms a contractual relationship with the each TO for every connection offer, therefore there are significant contractual controls and frameworks in place. Contracts are agreed technically and commercially whereby the ESO is accepting operational/financial/legal risk on behalf of the GB consumer so it not right that this risk is managed by a 'post-box'. It's acknowledged that the TOs have licence obligations to also look after the consumer's interests, however the TOs also have other commercial drivers of which the ESO does not. It's also worth noting that not all parties are CUSC signatories therefore these connection offers can be bespoke and outside of templates.