

Call for evidence on ESO performance over the 2018-19 regulatory period

Consultation response from Limejump Ltd

10th May 2019

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Response to the call for evidence on ESO performance over the 2018-19 regulatory period

Dear ESO performance Team,

This submission is made on behalf Limejump Ltd in response to the above-mentioned Consultation. We consent for our feedback to be shared with NGESO and it does not need to be randomised.

Limejump is an award-winning energy tech company, connecting trading and data abilities with customers who generate and manage energy assets through to the National Grid to optimise value throughout. Limejump, based in London, manages the largest portfolio of batteries in the United Kingdom. Limejump was recently acquired by Shell UK ltd and is a wholly owned subsidiary.

Please see below for our responses to the ESO performance against the 7 key Principles. Our response focuses on the first 4 principles supporting the ESO Roles of Managing System Balance and Operability and Facilitating Competitive Markets.

Overall, we believe that the ESO are driving change and delivering against their key objectives. At times we see this is limited by the rate of change of technical solutions with more labour-intensive workarounds being adopted which will inhibit the ability for scaling.

We are happy to meet to discuss our feedback in further detail. The information is provided to the best of our knowledge and is done so in good faith.

Yours sincerely,
Melanie Ellis
Head of Regulatory Affairs

Consultation Feedback on 7 Principle areas of focus

Principle 1: Support market participants to make informed decisions by providing user-friendly, comprehensive and accurate information

Area of interest: Generally feel the ESO's information dissemination and accuracy, the ESO's data systems and the ESO's engagement to date has been adequate although could be further improved. This includes the BSUOS monthly report, future Energy Scenarios, Market Outlooks, Electricity Capacity report, webinars and events relating to ancillary and Balancing Services tenders, reporting of trades to the market, publication of forecasts of the carbon intensity of the electricity system, Operational Forum events and daily and monthly summaries of balancing costs.

We believe that the ESO has made significant improvement in their guidance documentation and webinars across their entire product range, and in particularly relating to ancillary and Balancing Services. These updates are generally well structured and a good source of knowledge to market participants however they often just state facts and provide little additional information.

The preparation and mock weekly FFR auction were very well run and provided good insight into the planned process. That said, the late decision to pull the published timetable from a go-live of the 25th April to 13th June was announced very close to the initial go-live date and without publishing a revised detailed timetable to support the new go-live date. We believe that information should be shared in enough time for participants to be ready e.g. publication of 'Form A' which sets out the contract terms to allow participants to structure new agreements with customers.

As a result of the split from National Grid the ESO has introduced a new website. Whilst generally we found the website contains the critical data, we have found it complex to navigate and not intuitive. We appreciate this is a first iteration but believe it needs to be further simplified e.g. there should be alerts of any changes and a cleaner navigation process.

Principle 2: Drive overall efficiency and transparency in balancing, taking into account impacts of ESO actions across time horizons.

Area of interest: The ESO's approach to the real-time operation of the system, forecasting (demand, wind and solar), the ESO's Innovation Strategy, the Trades data platform, C16 Procurement Guidelines, SO IT forum, the ESO's monthly BSUoS report and the Operability Report, the Platform or Ancillary Services (PAS) and the ESO's approach to managing inertia. General satisfaction with the ESO's balancing approach, IT system maintenance and improvements and satisfaction with the level of the ESO's transparency.

We had the opportunity to work closely with ESO to set up the first Aggregated BMU. This involved months of collaborative work to deliver this significant first. Following the go-live of our BM units we praise the initial chances to feed-back on areas of concern however we feel there are still improvements to be made for which our experience would provide valuable insight. The two members of the DER Desk are now very familiar with our assets and we have a good two-way communication on learnings. The ESO were helpful in addressing some critical issues such as participation in BM and FFR in a timely manner.

In addition to the areas which were well managed and delivered by the ESO, there are still significant issues which make our participation inefficient and not competitive. We believe that the ESO should prioritise solutions for these barriers which we believe are mostly tech driven. In summary the issues identified include:

- 1) The Distribution Desk operates Monday to Friday between 7am-7pm. Outside of these hours our assets are included in the ZBE South Desk where they are less understood resulting in significant challenges for our traders and less efficient dispatching of our assets;
- 2) The National Grid BM parameters are rigid and designed to fit traditional BM units like coal or gas, and do not function well for multi-asset aggregated BM units. Aggregated BMU's with different asset types (such as battery and gas peakers) have very different Minimum Non-Zero Times (MNZT), Minimum Zero Time (MZT), Notice to Deviate to Zero (NDZ), Ramp up rates etc. This means that the flexible asset is penalised to match the asset with the more prohibitive parameters as we are required to enter the details of the slowest asset. In the first example below the details relate to the Gas asset and the battery would not be run. Similarly, in the second example the battery would be dispatched, and the gas asset could not be included.

Case 1: Zero PN and Gas asset first in offer stack

Tranche	Asset	Ramp MW/min	Price
2	Battery	999	£100
1	Gas	1	£80
-1	Battery	-999	£40

MZT	15
MNZT	30
NDZ	2
PN	0



Case 2: Zero PN and Battery asset first in offer stack

Tranche	Asset	Ramp MW/min	Price
2	Gas	1	£90
1	Battery	999	£80
-1	Battery	-999	£40

MZT	1
MNZT	1
NDZ	1
PN	0



- 3) These limitations resulted in Limejump incurring costs in registering an additional set of BM units for each GSP as gas and battery units could not physically share the same BMU.
- 4) Despite restricting asset types into separate BMU's Limejump continue to encounter issues with the EDL and EDT parameters. These restrictions result in Limejump being unable to

offer National Grid the full flexibility and optionality of the BMU units. For example, if we have 3 assets in a BMU with differing MNZT we need to set the entire MNZT of the unit to the MNZT of the most prohibitive/inflexible asset, restricting flexibility for National Grid and full value capture for asset owners. These parameters have also led to issues for the National Grid control room as typically a BMU is one asset, however Limejump's aggregated units are not. Typically, once a BM unit was on the MNZT this would have been met with the original BM instruction and a resulting increase/decrease in generation is simple. However, in an aggregated BM unit these are different sites that are subject to the same MNZT as the entire BM unit - communicating this is currently on a verbal basis with the control room.

- 5) There is no way of sharing state of charge of batteries through the current EDL parameters. Consequently, Limejump has established a 15minute rule with National Grid. This means that our MIL and MEL will reflect the MWh that our BM unit can export/import for a sustained 15-minute period. This is working well with the National Grid Control Room; however, it restricts full flexibility from National Grid as on occasions they are unable to procure the full BMU capacity for a shorter duration, which may better meet their requirements.
- 6) There is insufficient transparency on the reasons for actions taken across the desks. This information should be communicated when the actions are taken and not a month later via the general monthly report.
- 7) The process for adding BMUs is overly complex and takes two months. We have recommended a workaround by allowing pipeline assets to be included but this is currently unresolved.
- 8) It is not currently possible for Aggregated BMUs to participate in STOR and Fast Reserve which reduces the possible competition in these markets.

We welcome the ESOs ongoing work to assess how Black Starts could be provided by non-traditional technologies and believe the programme is being well managed.

Principle 3: Ensure the rules and processes for procuring balancing services maximise competition where possible and are simple, fair and transparent.

Area of interest: The ESO's future of balancing services workstream including progress of System Needs and Product Strategy (SNaPs) and product roadmaps, regional development programmes, new providers on boarding experience, progress against TERRE related developments, progress against facilitation non-BM access and the Power Responsive Campaign.

Please refer to the feedback on principle 3 regarding challenges of participating in the BM.

The Process guidance for participating in TERRE and wider BM is welcome. This was also well supported by the presentations and information stalls at the ESO IS Change Forum. This Forum

has been well managed and acts as a great way to update participants across all areas of the ESO agenda.

The ESO successfully introduced new D11 testing for their frequency response product which was a significant improvement. They also went some way to provide a standard bid template which was welcomed and allowed participants to understand whether their test met the necessary criteria. There are further improvements which we believe should be delivered. The spreadsheet still contains over 50 columns of which only a small proportion are used e.g. we should not have to input the start and end date of an EFA month.

We understand that the ESO is working to provide greater transparency and to this end would like to understand what volume remains under bilateral contracts and when this is due to finish for each product. We continue to see examples where bilateral contracts are not terminated in a timely manner which does not open the market to competition. For instance the ESO continued existing Frequency contracts, FCDM - Frequency Controlled by Demand Management, out to at least June 2019 despite initially stating all contract of this nature should be gone by December 2018. As a result of extending this contract a significant number of our battery customers moved to the provider of the bilateral contract. As such, frequency response volume and volume for the Balancing Mechanism that could compete in these more transparent and competitive markets has moved away from this market as the terms of the bilateral contract are significantly preferable.

We note there is also a lack of transparency on bilateral trades which are done outside of the normal BM, also we require more timely updates on activated STOR volumes in order to see in real-time the effect these instructions have on the imbalance price.

Principle 4: Promote competition in the wholesale and capacity markets.

Area of interest: TNUoS and BSUoS customer seminar, BSUoS and TNUoS billing and reconciliation, code administration satisfaction, Charging Futures, improvements to the customer journey on network charging and code administration, the Regulatory Horizon project, experience of charging processes, publication of charging data and European network codes capacity market modelling.

The ESO significantly enhanced their Capacity Market Prequalification information pack and mid-prequalification checking processes following customer feedback. These were both significant improvements on the prior year. We also believe they did a great job of keeping market participants informed as a result of the impacts of the current Standstill. Their phone service and response time to queries is also significantly improved.

We welcome the work with the DNOs under the Regional Development Programme.

Principle 5: Coordinate across system boundaries to deliver efficient network planning and development.

Area of interest: Interactions with DNOs and TOs, network development roadmap consultation and the final NOA roadmap, NOA pathfinding Projects, developing new ways of working with DNOs, unlocking further connection capacity for DER, Regional Development Programmes.

We welcome the ESOs work on wider system access.

Principle 6: Coordinate effectively to ensure efficient whole system operation and optimal use of resources.

Area of interest: ESO's engagement on ENA Open Networks including Future DSO arrangements, the connections process, Power Potential, Enhanced Frequency Control Capability, TOGA system.

We are in favour of the work to date on the Future DSO arrangements but believe that they should take a stronger role in co-ordinating a standardisation DNO remit and offering.

Principle 7: Facilitate timely, efficient and competitive network investments.

Area of interest: Network Options Assessment process, engagement and recommendations, Electricity 10-year Statement.

We have not had any involvement in the NOA process.