

Dear Ofgem

Thanks for your call for evidence on ESO's six-month performance 2021-23 dated 4th October 2021. Please find Statkraft's submission below.

We have identified the items in your letter to which our points relate. To assist in categorising our comments we have:

- Underlined the topic titles from Ofgem's letter
- **Bolded positive commendations**
- Plain text for work in progress, matters to watch
- *Italics for shortcomings and criticisms.*

1. Activity 1a: System Operation

- a. Operating the network carbon free.
 - i. **We highly commend NGENSO's continued adherence to its ambitious and important 2025 zero carbon operation target.**
- b. Making trade-offs across time horizons
 - i. **We highly commend the use of Connect and Manage. Undoubtedly NGENSO will be criticised for the high levels of constraint payments in the market at present. However, we ask that any critic consider the counterfactual. If Connect and Manage had not been used, although there would be far less constraint payments appearing in BSUOS, those same constrained on (gas) power stations would have still run, albeit in the energy market, not because of constraints. There would also be a lot less wind power available, especially outside constraint periods, resulting in even more gas generation and higher bills to consumers. Therefore, it should be recognised that Connect and Manage is saving considerable sums for consumers. The fact that costs are moved from the energy market to BSUoS should not be used to disguise this overall benefit to consumers.**

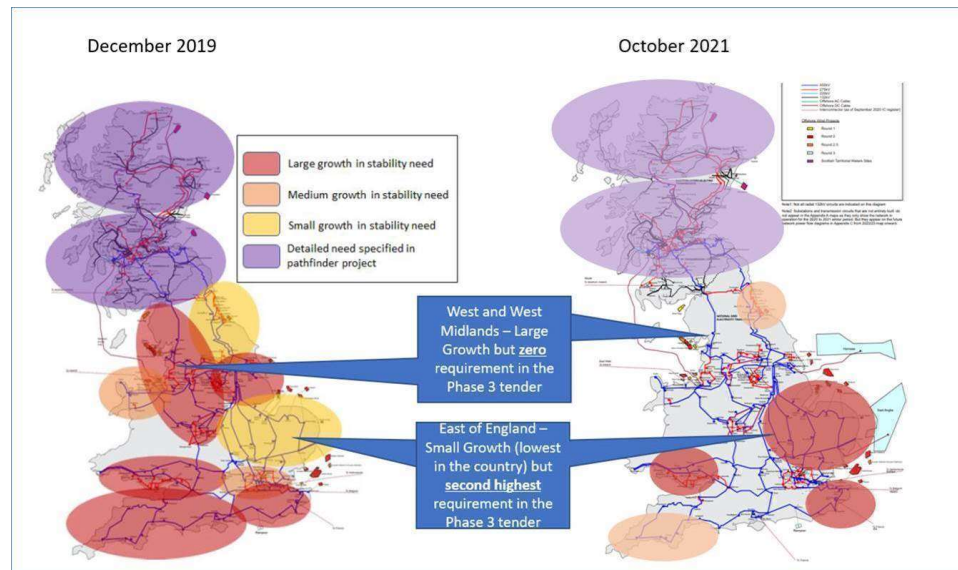
2. Activity 1c: Transparency, data, and forecasting

- a. Provision of market information;
 - i. **We commend the improving transparency and data publication via data portal and recent significant improvements – especially inertia forecasts and back-casts.**
 - ii. **We commend the useful provision of online data and curl (url reference) allowing external linkage with data,** (although the name change in url means it can't be a permanent link).
 - iii. **We commend the continuing weekly ENCC Operation Transparency Forum.**
- b. Data use and exchange.
 - i. **We note the continued publication of the ETYS and the NOA and commend the general improvements and innovations.**
 - ii. That said, there is a risk that these historical publications lose focus in favour of new flavour of the month publications or information. *We have noted that ETYS has failed to include data on some new substations. It is important that these two publications retain a high priority and see improvements in quality. There is significant work still to do on provision of fault level data.*

3. Activity 2a: Market design

- a. Competitive market-based procurement

- i. **We commend the development of stability pathfinders with 3 different phases.**
 - ii. *We have significant concerns regarding the treatment of competing projects in the Stability Pathfinder Phase 3 and Phase 2 tenders with regard to NGESO's approach to hypothetical system reinforcement costs arising from high fault levels based on numbers of competing projects being assumed to connect to the network. We have not been able to engage NGESO in discussion on this matter. We enclose our proposal to NGESO "Phase 3 Connection Process Reivew_Final" which we have sent to NGESO and are seeking a meeting to present and discuss.*
 - iii. *In Stability Phase 1 NGESO insisted on using the measure of MVA.s to define the inertia of a rotating synchronous machine. The inertia of a physical rotating object (a generator and/or flywheel) cannot be measured in these units. It is measured in MJ or MW.s. This resulted in some major difficulties in tendering and contracting. Despite this NGESO continue to revert to the units of MVA.s or GVA.s to incorrectly define inertia.*
 - iv. We note there are have been major challenges for our industry as a whole due to Covid. **We commend NGESO for allowing some limited Covid delay related extensions to Stability phase 1 contracts, however Covid delays have continued and continue to effect the delivery of Phase 1 projects.**
- b. ■ Signalling procurement needs;
- i. *In Stability Pathfinder Phase 2 NGESO announced effectiveness factors for substations. On this basis we proceeded with developing projects. At a later stage in the tender process NGESO decided to compound these effectiveness factors, effectively "squaring" the existing factors so that for example a 90% effectiveness factor became a $0.9*0.9=81\%$ effectiveness factors. This had a detrimental effect on development of suitable projects and could result in extra costs to consumers through imperfect competition and wasted efforts by developers.*
 - ii. *In December 2010 for Stability Phase 3, NGESO produced a chart showing areas of need. In October 2021 this chart was republished (see figure below). The new requirement and the old requirement bear very little resemblance and could almost have been generated randomly. Some areas have gone for Large need to No need. Some form Low/Zero need to Large need. And the areas have changed. Despite our requests NGESO has not provided any explanation to this change.*



iii. *With regard to Pennine voltage a similar situation has occurred where the needs were shown to be very widespread but at a later date the needs data changed.*

4. Activity 3a: Connections and network access

a. Managing connections;

- i. **NGESO is adept at getting connection offers out in the 3 month target period.**
- ii. *In stark contrast Modification offers are experiencing serious delays with some offers having taken over 9 months.*
- iii. **NGESO has effective engagement with customers and solid relationship management.**
- iv. *NGESO appears unable to push back or challenge the TOs on the customer's behalf and is not robust in resisting non-standard or unreasonable terms asked by TOs in the TOCO and passed on NGESO's customer.*
- v. *There is an inconsistent approach between contracts i.e. different provisions inserted into contractual documentation for similar projects with different connections, often with little or no explanation.*
- vi. *NGESO doesn't always call out specific changes and/or inclusions into offer documents to customer (e.g. pathfinder provision in recent contracts and assumptions provision in construction agreement for a new substation site).*
- vii. *There are frequent errors in contract documentation (ie reference' to 'Error' – typically cross-references not being updated).*
- viii. There is a potential issue in the treatment and assessment of connections (and market operation) for storage systems – which can both import and export, potentially decreasing (or increasing) network constraints. We want to ensure that we can continue to develop and connect storage projects which will help decarbonisation, security of supply and reducing network reinforcements.
- ix. *NGESO is proving inefficient at returning cash lodged as securities (Cancellation Charge Secured Amounts) once generators connect to the networks and needs to improve.*

5. Activity 3b: Operational strategy and insights

a. Providing energy insights;

- i. NGESO has published the FES for 10 years. It is time to publish all historical documents and for a review of the past 10 years FES documents to show how the various scenarios have evolved and to assess how good these were in hindsight. As an National Grid publication the FES receives significant media and industry kudos and commands attention, however its historical performance should be assess to put its current future scenarios into context.
6. Activity 3c: Optimal network investment
 - a.
 - Identifying network needs and solutions;
 - i. *We have a situation where old outdated switchgear with a low fault level capability and owned by a generator is preventing the connection of new storage projects to the network. This situation is not economic and efficient and is impacting competition. We are aware that a large number of parties are impacted by the same matter. NGESO have been ineffective at delivering a solution.*

Thanks for the opportunity to engage on these matters, we would be pleased to provide more details if required and continue to support improvements to NGESO's vital role in enabling decarbonisation of GB the electricity supply.

Guy Nicholson CEng

Head of Grid Integration, UK.