nationalgridESO

Constraint Management Pathfinding Project

FAQ

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Contents

FAQs

Introduction

This FAQ pack covers some of the comments and questions raised during our Constraint Management pathfinding webinar. Please note that this is a work in progress document and we are aiming to update this pack as we progress with our Constraint Management pathfinding project.

General

1. **Are the Constraint Management webinar slides available?**

   Yes, you can find the slides from our Constraint Management webinar held on 13 May on the Network Development Roadmap page of our website.

2. **Do you consider Energy Storage systems in resolving grid constraint issues?**

   Yes - Our aim is to procure a long-term (contractual) product, which helps us to alleviate the constraints on the network as long as they meet our technical and operational criteria and can be economically and efficiently procured. Energy Storage systems could be one method.

3. **Are you considering a DNO solution?**

   At present, we are aiming to take a whole system view of the changing energy landscape to deliver benefit to the end consumer.

4. **What is the difference between dual and single positioning?**

   With a single location approach, the idea is that energy is absorbed or taken off the grid on the exporting side of the boundary. This results in a saving in the 'bid off' price i.e. turning down a generators output. An action would still be required through the BM on the importing side of the boundary to increase generation/decrease demand. With dual location, there might be savings on the BM action as energy would be absorbed and injected at the same time, on each side of the boundary, in a mirroring effect. Like any new service, there are challenges with both operational strategies and we need to engage with you in order to shape the optimal product. Both operational strategies will be included in the CBA to find the most economic strategy.

5. **Who would control the asset? (SO or asset owner?) Would asset be 'rented' or leased to the SO for a specific duration or would it operate as per existing BM arrangements?**

   As ESO we cannot generate electricity, hence would not own or operate any asset(s) and so we would contract for a service as the ESO which would be provided by a third party who would own and operate the asset(s). Further information, including in relation to service stacking, can be found within the RFI pack.

6. **What is the business certainty for new investments and connection head room?**

   Both of these will depend on contract type and payment methods (etc) being developed as mentioned elsewhere, as well as in the RFI pack. Furthermore, a factor to consider is the degree of certainty required by both the ESO and the service provider(s) in relation to any proposals. For example, in relation to any new proposed solutions having a degree of connection certainty if they are yet to be connected to the system. For the avoidance of doubt, service providers will not be given preferential treatment in the timing of new connections.

Requirement

7. **What types of constraints do you consider?**

   In general, in the North region we experience thermal constraints. This is mainly due to the amount of renewable generation in the north region causing high North to South flows. In the south region, we experience both voltage and thermal issues, mainly due to the interconnector flows.

8. **Where the services will be required, what is the duration of service? What is the required size of generating and absorbing power?**

   All the technical data such as size, location, and operational specifications will be provided in future during our market engagement platforms and tender process. At this stage, we are aiming for a 2 hour duration product.

9. **Are you considering the non-constraint periods?**

   At this stage, our working assumption is to procure a service which helps Electricity National Control Centre (ENCC) to run the network at higher operational level prior to the faults.

10. **What will be the notice period and the actual mechanism to provide signal for other services?**

    Further information on the notice period to provide signal for other services can be found within the RFI pack.

11. **What are the rules for participating in single and dual location concepts?**

    Similarly to aggregation, an appropriate communications infrastructure will be required for both the single and dual location concepts in order for the ENCC to be able to signal the needs of the network. All of the proposed solutions are required to be compliant with the technical, commercial and operational requirements.

12. **What is the minimum asset size for aggregation and whether they can be exempt from mandatory frequency response and voltage support or not?**

    We would welcome feedback through the RFI on what providers feel the appropriate minimum asset size for aggregation per location could be and whether any special provisions should be made to facilitate additional value.

Assessment

13. **What will be the impact of planned transmission reinforcements?**

    In our System Identification stage within our feasibility studies, we assume that we have the latest NOA optimal path1 reinforcements in the background. The impact of actual future reinforcement on the commercial arrangements will need to be considered in due course.

14. **What is the key difference between the results for Two degrees and Community renewables FES scenarios?**

    The level of decentralisation is higher in Community Renewables scenario comparting to the Two Degrees scenario. However, both scenarios have similar decarbonisation speed and meet the 2050 carbon reduction target. Due to the time limitation in the webinar we only presented the Two Degrees scenario. In future correspondence, we will focus on a range of scenarios.

Commercial and Future Market Framework

15. **What is the length of the contract to secure the funding?**

    We would welcome potential providers' views on what length of contract would be necessary to maximise value; however we would also note that we would have to factor in additional risk to cover the increased uncertainty over longer term forecasts of constraints and associated costs.

16. **Are you considering the stacking of services?**

    This will depend on the balance between the commercial aspects and the ability to provide the service to the technical requirements which needs to be further considered. Further information can be found within the RFI pack and we would welcome feedback on potential solutions and any other options potential service providers feel could add value in relation to

facilitating revenue stacking opportunities whilst ensuring the technical requirements can be delivered.

17. **How do you treat the energy imbalance?**

    We are aware of the need to keep any potential interactions with other elements of markets e.g. imbalance) in mind as we develop the pathfinding project, as well as any potential market distortions – as we are currently at the feasibility stage of the pathfinding project we cannot yet answer more specific questions on potential interactions and impacts but we would welcome further views from stakeholders on any potential issues and/or potential solutions as and where they are identified as this pathfinding project progresses.

18. **What happens to energy imbalance and price differentiation upon absorbing and injecting times?**

    As the ESO, we are unable to own energy. Therefore, although we expect that the service provider(s) will be ultimately responsible for releasing any stored energy, we may be giving instructions on the optimal time of release. The pricing impact of any released electricity on both the service provider(s) and the wider market will be further considered during future market engagements. It is likely that the service provider(s) will be held whole against imbalance risk as part of the contract as this would be consistent with other service principles. We would welcome potential providers' feedback on their expectation on price differential.

19. **How will the ESO manage assets without creating market distortions?**

    Provided a clear set of operational rules are put in place as expected, we do not foresee that the service will be creating market distortions as it will be responding only to physical conditions and will alleviate network constraints. We would expect to inform the market after the event that the service has been utilised, but not before as that could unduly influence market behaviour in anticipation of service utilisation.

20. **How do you plan to balance the competitiveness of the market and the security of and for the service?**

    During pre-qualification assessment, we will not only be taking into account the technical aspects, but also the commercial aspects of proposed solutions. By doing so we will ensure that the duration of the service we are procuring will indeed comply with the longevity of the service required as specified during any tender process.

21. **Are there any potential conflicts with other BM services at different voltage levels?**

    The intent of the service is that it is only used in the event of a constraint on the transmission system as described further within the RFI pack. This means that utilisation would be decided by the control room holistically alongside other actions, and therefore there should be no conflicts. There may be potential interactions with DNO flexibility services to be investigated further with DNOs as we develop the service in future.

22. **Will there be any penalty regimes put in place?**

    As this project relates to the operation of the transmission system, there may be damages involved for insufficient performance, as well as a risk of early termination of service provision. The details of these provisions will be described in more detail during future market engagements.

23. **Will there be any exposure to imbalance price during delivery and what will be the treatment for that?**

    It is likely that the service provider(s) will be held whole against imbalance risk as part of the contract as this would be consistent with other service principles. The details will be explored in greater detail during future market engagements.

24. **What are impact of TCLC rules on an asset specifically built to alleviate a constraint?**

    We do not believe there is conflict with TCLC; we will keep this under review and we advise potential service providers to do their own due diligence.

25. **Will the value of the provided service commensurate with the value that NGESO realise?**

    Our intention is that there will be value in the service but this will need to be validated e.g. through any future procurement exercise.

26. **We need to consider small embedded providers from 1 MW up as a special case as the barriers to entry for the market might be too high. Also, the codes don't cover the distributed networks very well and so we might need more emphasis on DNO bi-lateral contracts.**

    At this stage, it is still too early to comment on any contract or procurement strategies we will undertake. However, we will keep this comment in mind and engage with the industry on this issue.

27. **What market signals could be given to incentivise the market to respond and alleviate the need for the ESO to actively give instructions?**

    The pathfinder is exploring means of resolving Transmission system constraints in a more economic manner than through BM Actions when they occur - it is not exploring any potential means of reducing the volume of those constraints, although this is being considered elsewhere.

28. **What is the bankability for the provided solutions?**

    The bankability of each individual solution will be dependent upon the length of contract, and agreed payment method, along with other locational drivers and capability and availability requirements.

29. **During the tender process, how will you ensure open access and participation to markets, including non-discrimination (at least with respect to zero-carbon assets) to enable better participation from DSR and storage technologies?**

    As the ESO, we are unable to discriminate between proposed solutions based on technology type, including zero-carbon solutions. We would welcome feedback through the RFI on whether our proposed service and market design could potentially create barriers to specific technology types.

30. **How will the ESO give specific locational signals on where to connect, would there be any impact on the other generators in that region?**

    The ESO will communicate all requirements, including the locational specifications, during future market engagements. The requirements will be based on a number of factors, such as chosen boundaries, location of substations and either the single or dual location concepts being implemented for a particular region. For any further clarification on this, we invite service providers to contact us directly with any queries.

31. **As a new balancing service, are we exempt from UCR and can we have EoI+Competitive Dialogue post RFI?**

    We will be running an open and transparent procurement process after the RFI in due course (if the RFI shows that to be a suitable course of action) and will provide more information as part of that process. Further information can be found within the RFI pack.

32. **How similar is the thinking around dual location concept to the discussions around FINCs? (Fully Integrated Network Components) at EU level?**

    Our working assumption is that any asset used to provide the service in future will not be a fully integrated network component in respect of Directive (EU) 2019/944 and the service will relate to congestion management.