Pre-Tender Queries v1

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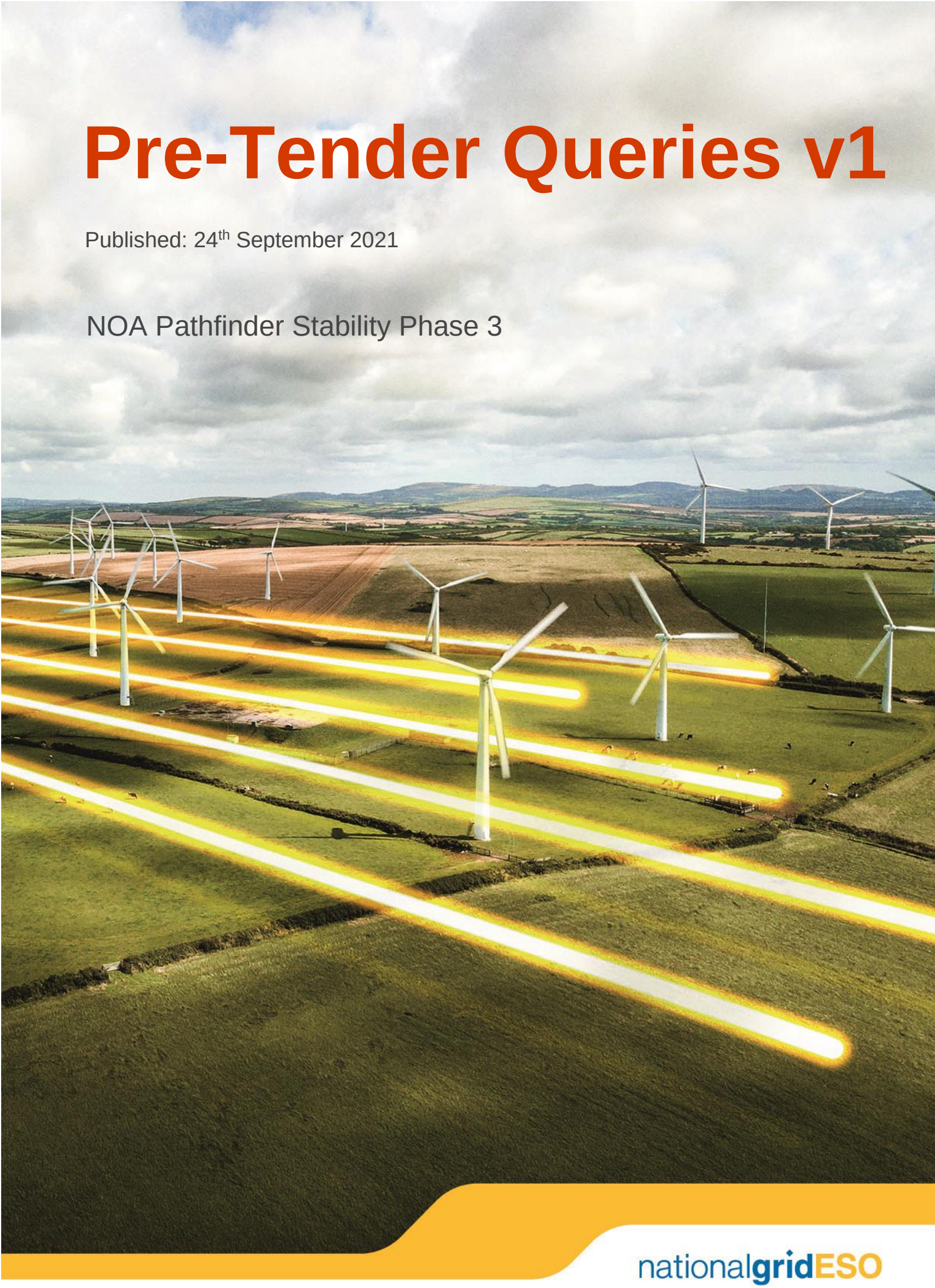
NOA Pathfinder Stability Phase 3



nationalgridESO

Contents

The section headings above are for guidance only, many of the questions span multiple areas.

General Queries

1. **Is it an absolute requirement to register on SAP Ariba to participate in the tender?**

   Response: SAP Ariba is the chosen tendering platform for this tender, so an account will be required. This system is free to register for a standard account. At this stage you will only need to register for an account and confirm back the AN ID reference number associated with the account. More guidance is available here https://help.sap.com/viewer/687d1f7adb11409695eac66269165762/cloud/en-US/ddfed524f0181014a02fe1046362ff9c.html

2. **How do I register for a SAP Ariba account?**

   Response: The pre-tender information documents published on the ESO website include an ARIBA guidance document, which provides information on how to register for an Ariba account. If required, further guidance is also available here: https://help.sap.com/viewer/687d1f7adb11409695eac66269165762/cloud/en-US/ddfed524f0181014a02fe1046362ff9c.html

3. **Can you define the word 'provider' in relation to its use on page 6 of the Tender Overview document? Are two sync comps on the same site a single 'provider'?**

   Response: In this case the word 'provider' on page 6 of the Tender Overview pack is synonymous with 'solution'. Two sync comps connected to the same substation bay will be classed as one solution for the purpose of achieving redundancy. However, if these sync comps were connecting to different bays at the same site, they could be classed as two separate solutions and the redundancy requirement would be based on the unavailability of the largest solution. Please be aware however that across other tender documents the word provider may be used synonymously with 'bidder' or 'tenderer' - i.e. the company who would put forward potential solutions.

4. **With regards to company name information provided during the EOI period, will it be possible to make amendments to this after October 22nd?**

   Response: The details provided now during the 'expression of interest' will be used to ensure that all those who register are invited to the Stability Phase 3 tender on the SAP Ariba system. This relies on company name and individual contact details, such as email. This information shouldn't change, which is to ensure that we invite the correct companies/ people on Ariba. We will also use the contact details provided now as the main contact for your company in relation to Stability Phase 3.

   In the tender submissions, companies will be asked to be confirm the exact details of the bidding entity that would be entering the contract if they were successful with the solutions provided. As such this means you can confirm the details of the bidding and contracting entity in your tender submission. NGESO acknowledge that these details may vary slightly from the company details provided at the expression of interest stage.

   NGESO reserve the right to confirm that there is a relation between the company details registered at EOI and the company details provided at tender submission.

   For example. you might register now as "Energy Limited" with your Ariba account set up as "Energy Limited" but in your submission you would state the bidding and contracting entity as "Energy A Limited". In this scenario you may be asked to confirm the relationship between Energy Limited and Energy A Limited.

5. **Where can I find the recordings of the webinars?**

   Response: The webinars are now available on the Stability Phase 3 webpage.

Technical Queries

6. **Is there a network diagram map showing where the different regions are and showing the substations in each region?**

   Response: The details of which substations fall into each region of need, with a network map, will be available with the invitation to tender launch later this year. For the time being, please refer to the Stability Phase 3 Connections Approach document.

7. **Please can you explain the N-1 requirement for Stability Phase 3? Is the philosophy the same as prior Pathfinders?**

   Response: N-1 criterion aims to guarantee redundancy for SCL provision and covers for the largest solution within a region. For Stability Phase 3 this will be confirmed when the assessment methodology is published later this year with the invitation to tender.

8. **Will your N-1 approach effectively discriminate against larger solutions?**

   Response: This is required to safely operate the system in each region if any solution within the region becomes unavailable. You may see in the Connections Approach document that we are looking at different SCL sizes to meet the required need.

9. **Can batteries or interconnectors participate in Stability Pathfinder 3?**

   Response: Please refer to the technical specification or send an email to box.ESO.StabilityP3@nationalgrideso.com for any specific technology type questions you may have.

10. **Please could you clarify - what is GFC storage?**

    Response: GFC storage in the contracts webinar slide 22 is referring to any electricity storage module which is of non-synchronous type. Please see definitions of GBGF-I in the Technical Specification.

11. **The Stability Phase 3 Additionality Criteria is again drawing a line in the sand to disallow assets on the TEC register prior to 10th September 2021, because these are considered 'existing'. How does the ESO know if these assets will 'exist' in the next few years, given how many synchronous generators are closing? Also, is this a risk as it means ESO's calculation of need will be incorrect as the baseline will change?**

    Response: We are looking for additional capability to what the current and future BM outlook is expected to provide. Existing assets are welcome to participate in the tender but must demonstrate that they are satisfy Additionality Criteria (on page 7 of Tender Overview document) and meet the technical specification. Generation that exists or is planning to exist irrespective of the Pathfinder project will not be offering additional support. The reason for using the TEC register to give this view of what is existing is to provide transparency as the TEC register is a public document. The 10th September 2021 is when we published pre-tender information on the NOA Stability Pathfinder Phase 3.

    We have decided to maintain our focus on new capability within all phases of the NOA Stability Pathfinder. The main driver for this is our ability to demonstrate clear value for money by being able to weigh the cost of the service against the value of the new capability provided. The ESO has the ability to access stability support from existing generation through the BM and this will be considered in the Pathfinder as the counterfactual against which we will buy (or not buy) any solution. In future years, we expect there to be insufficient stability support from generation to meet the stability need and there therefore may be a case for existing capability to be included in a future close to real-time markets for

stability. We have launched an innovation project looking at the development of Stability Market. Please see ENA website for more details on this project.

12. **Will an existing unit that fits equipment to allow sync comp without active generation be allowed to participate as this is a new capability (e.g. a gas asset fitting a clutch)?**

    Response: As per Additionality Criteria, this is the case of "the new capability to operate at or below 0MW" so it would be eligible to tender (assuming we have understood your point correctly). Clearly the new capability needs to meet the technical specification.

13. **Can you confirm that submissions will only be accepted for joint inertia/SCL in the 'locations of need' listed in slide 6 of the Tender Overview document?**

    Response: Stability Phase 3 is seeking submissions for SCL and inertia that fall within the regions of need.

14. **The technical specification appears to primarily focus on synthetic means of inertia provision. It is important to also have specifications for synchronous machines. Will these be updated or is the current specification providing a steer as to how ESO expect solutions to be delivered?**

    Response: The technical specification focuses on all grid forming technologies, i.e., synchronous technology (GBGF-S) and inverter-based technology (GBGF-I).

15. **Does an existing sync-comp redesigned to increase its inertia meet the additionality criteria? Is there an absolute or % increase in inertia required to meet the 'new capability' gate listed on slide 7 of the Tender Overview document?**

    Response: Existing assets must demonstrate that they are increasing their capability above what is currently provided by implementing new capability such as change in design/ include new assets or operate at or below 0MW. Any type of solution can participate, but they must fall within the area of SCL need and meet the requirements set out in the technical specification. Please refer to slide 21-22 of the contract terms webinar for further details on the Additionality Criteria.

16. **From my understanding of the webinar, there are no specific reactive power requirements at the point of coupling. Is over-excited operation (QMAX) during over-voltage (1.1p.u.) required? Would you have an example where this operating point would be needed in grid operation?**

    Response: The reactive power capabilities are specified in Part B of the technical specification. We do not expect solutions to be dispatched to inject reactive power when the voltage on the system is high and conversely to absorb reactive power when the voltage on the system is low.

17. **Can a plant with only Synchronous Condenser (SC) be accepted as a GBGF-S? or will be a GBGF-I, as it is defined as Dynamic Reactive Compensation Equipment? For this last case, the plant cannot have Active Control Based Power, as the SC do not have Active Power capability - please clarify.**

    Response: A plant with only synchronous condenser is classified as a GBGF-S and it is not expected to have active control-based power.

18. **Regarding those substations listed in Table 1 of the Connections Approach document with bays being reserved and studied: 1) are they the Point of Stability and do they have the 100% effectiveness factor? 2) Do you foresee any difference or changes in Stability Phase 3 feasibility study requirements as compared to Stability Phase 2?**

Response: 1) The bays in Table 1 are based on overall consideration of effectiveness and available bays and capacity in that region for connection.

2) We will publish feasibility simulation guidance, which will provide more details.

19. **Has there been a recognition in the technical spec of the recent faults on the system and how the system has behaved? Further, does this signal a move back towards sync machines?**

    Response: We recognise that with the move to net zero, there is a need to enhance stabilising properties. We believe that this can be provided from any grid forming technology, such as synchronous machines and grid forming converters.

20. **How is a battery classified in this Stability Pathfinder 3 - I or S?**

    Response: Battery connected via grid forming inverters are considered as GBGF-I.

21. **The tender document states NGESO are looking to procure solutions that provide both SCL and inertia and not only one of these services. Is this the same for existing assets that are increasing capability? Do they need to increase capability to provide both services?**

    Response: All solutions need to provide both SCL and inertia. Regarding the final part of your question, the relevant colleague is on holiday this week. We will update this response in the next updated release of the FAQ. Apologies for the delay.

22. **Fault current injection from the technology: will this be absolute current or incremental current injection from the technology? Further, based on Stability Phase 2 experience, would there be well-defined criteria defined for the simulations?**

    Response: Information will be provided in the simulation guidance note to be published soon.

23. **For the SCL contribution, is the pre-fault voltage specified? Or has the operating point and grid voltage selected that leads to the lowest SLC?**

    Response: All specifications for simulations will be provided in the simulation guidance note to be published soon.

24. **Follow up question to reactive power capability declaration: Will NGESO be assessing based on declared the reactive power min and max capable of an asset?**

    Response: All specifications for simulations will be provided in the simulation guidance note to be published soon.

25. **In the presentation you mentioned SCL contribution for 100ms but verbally you spoke about fault clearing times of 140ms. What is valid?**

    Response: The fault current contribution should be considered at 100 ms. The fault clearing time should be at 140 ms. Detailed information will be provided in the simulation guidance note to be published soon.

26. **In Part B - Continuous Voltage Requirements, of the Technical Spec V1, the table which sets out the range of reactive power minimum and maximum is empty. When will this data be provided?**

    Response: The provider is expected to fill this table for each solution in the service contract.

27. **Would you be willing to accept multiple tenders for several different potential schemes on inertia/SCL projects from one asset?**

    Response: One value will be accepted per asset. We may not be interpreting your question correctly, if so, please clarify this question by emailing box.ESO.StabilityP3@nationalgrideso.com

28. **Is the SCL of synchronous machines also assessed with equation 1 in 2 Part A?**

    Response: Yes, Equation 1 should be considered for both GBGF-S and GBGF-I solutions.

Connections Queries

29. **When the connection feasibility study report is released, will the non-operational land outlined in the document have already been through NGET's internal land clearance process, or is this an additional step that would need to be completed?**

    Response: The Stability Phase 3 Connections Approach document NGESO released touches on what is and is not being done regarding the NGET non-operational land (see page 10 onwards). NGESO have commissioned NGET to conduct high-level Estate Reviews of the NGET non-operational land surrounding the substations noted in Table 1 of the Connections Approach document, which will be released to tenderers within the Connection Feasibility Report being produced by NGET. NGESO also plan to organise site walks of NGET non-operational land. However, NGESO has not and will not be reserving any land for tender participants.

30. **Please could you clarify how connections that are already in progress will be treated?**

    Response: Should bidders wish to utilise an existing connection or in-process connection application, rather than use one of the connection points reserved by NGESO (as described within the Connection Approach document), then assuming that those connections fall within an area of need, a connection offer or modification offer would need to be demonstrated as part of a bidders tender submission. Please see pages 6-9 of the Connections Approach document.

31. **Will the capacity be reserved other than the bay? What happens if we want to connect more than +/-100MW?**

    Response: We are accounting for a +-100MW and +- 100MVAr per bay reserved. If providers wish to connect more capacity, we would advise waiting for the feasibility report from the TO, which should give an insight on whether the capacity of 100MW and 100MVAr can be accommodated on the network.

32. **You mentioned lessons learnt from previous Pathfinders, could these be shared?**

    Response: Lessons learnt from previous Pathfinders have informed our new connections approach in Stability Phase 3 and are listed in the Tender Overview document (slide 14) and the Connection Approach document (page 4).

33. **When will the NGET feasibility report be completed and shared?**

    Response: The report is already underway. We are aiming to release it around the time of tender launch.

Contract Term Queries

34. **The technical/connections webinar suggested that solutions would only be considered if they were providing both SCL and Inertia. The contract terms seem to suggest it could be one or both provided by given solution?**

    Response: Solutions must have capability and tender for both SCL and inertia. The contract covers the scenario where a solution cannot deliver inertia at the same time as SCL i.e. 90% of the time, e.g. because of the type of technology and so requires slight differences in the payment calculation.

35. **Will units that currently have a sync comp contract in place be replaced with an inertia/SCL contract if they are successful in the tender process?**

    Response: We will inform the market shortly on how units with existing contracts would be treated.

36. **Are the lump sums that were indicated in the contracts webinar calculated based on CAPEX of the equipment? If so, will this be discounted from the payments for service provision? Or how would this work?**

    Response: At this stage, we do not have a position and we welcome your views in the feedback - please see the specific question towards the bottom of the consultation form.

37. **How long is the contract?**

    Response: Contract length is under review and we will let the market know on the end date and whether extension provisions would apply in the final set of terms.

38. **Is it possible to bid on other markets (such as DC/DM/DR) while we are in contract with the Pathfinder?**

    Response: In the draft terms we have listed provisional list of services that could be stacked. In general, the principle is to allow stacking where it is viable.

39. **After the Stability Phase 3 contract ends, will NGESO extend the contract or offer a different service that can be captured for the assets? This is considering the assets life are 25+ and inertia need on the system may still be present.**

    Response: In the consultation we have stated we are considering including extension options - please do refer to this and provide your feedback on your thoughts about including extensions on Stability Phase 3 specifically.

    Separately, ESO is working to develop a stability market (more details here https://www.nationalgrideso.com/future-energy/projects/stability-market-design) that may offer another route for assets to offer their capability.