AMP CLEAN ENERGY SUBMISSION TO THE OPEN NETWORKS PROJECT FLEXIBILITY CONSULTATION 2020

Introduction

AMP Clean Energy is a distributed energy company which funds and develops low carbon heat and power assets including biomass heat installations, heat pumps, solar PV and flexible energy plants. AMP Clean Energy's mission is to help UK businesses and organisations unlock the potential of decentralised, low carbon energy which supports the UK's transition to a net zero economy.

AMP Clean Energy removes barriers to low carbon heat and power by providing funding to organisations to develop onsite energy assets. Working with a range of sectors including healthcare, agriculture, education, industrial and public sector, projects range from new biomass heat installations to solar PV.

We have an established track record in developing low carbon, decentralised energy assets. To date we have developed more than 150 MW of larger scale flexible generation projects and 108 MW of
smaller flexible generation plants across 26 sites close to urban and commercial demand centres. We have ambitious plans to develop multiple facilities of such 2-4MW projects with a particular focus in urban areas, close to our major cities.

We welcome the consultation and have set out our views on the key questions to our business below. **We would be happy to discuss these or any other questions on a one-to-one basis with relevant members of the ENA team or with DNV GL as part of their work on baseline methodology.**

Consultation Questions

Q1 – Do you agree with our proposals within this consultation paper and if not, please provide us with any rationale and alternative proposals? This feedback can be generic to our proposals or provided on a product by product basis.

Yes, with the only additional area for development we would highlight being the provision of standardised information on network loading and connectivity (ie diagrams) to allow providers to assess and anticipate the likely development of the market. This would aid the development of flex capacity by pulling forward development timelines, which would in turn increase the likelihood of capacity being available when first required by the DNO. Currently, there is often inadequate notice of system need to allow development of flex capacity within the required timescales.

Q2 – Would stakeholders see greater value in holding PQQ stages (1,2 in the associated presentation) at point A or point B in the timeline with rationale?

Whilst we don't have a strong preference, there is, perhaps, a stronger case to be made for the PQQ stages to take place at point A on the timeline to prevent 'false starts' (i.e. a tender closing only to find that the winning bidders do not meet the technical requirements).

Q3 – Do you agree with the alignment of timing for procurements on the proposed cycle of 2 procurements per year and if not, why?

Yes, though we would argue that these should be staggered as much as possible to avoid the deadline for bids falling on the same day for all projects across all DNOs. For example, deadlines for submission could be staggered over September to November for the autumn procurement cycle and March to June for the spring cycle. The benefits of staggering deadlines will only increase as the volume of procurements rises over coming years, with greater time to prepare and submit bids increasing both the quality of submissions and the level of competition between bidders.

Q4 – Do you agree that implementation of these consistent parameters helps to remove barriers to entry?

Yes, and we agree with the proposed implementation plan.

Q5 – Should any other parameters be considered and if so, why?

We would encourage the appropriate group to look at whether there is a need or case for standardisation of communications hardware, software and processes.

Q6 – At what point do you believe it is appropriate to standardise new products? For example, should we initiate standardisation early on limited experience, or allow more than 2-3 DNOs to develop and procure similar products before commencing standardisation?

We understand there are trade-offs and tensions between the need to trial new products and services and the aim of standardisation across the DNOs. However, we believe that standardisation should take place as quickly as is practically possible, with DNOs given the flexibility to deviate from core/standard products where there is a clear local need or benefit from doing so.

We would also add that standardisation does not and should not prevent products evolving over time to meet changing circumstances or need, though clearly there is a need for transparent and open governance arrangements to oversee and guide future changes.

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Q7 – Which new DSO services do you believe are ready for standardisation now, if any, and why?

As a result of the increased presence of renewables, replacing traditional, synchronous generators, National Grid and DNO networks are experiencing voltage and thermal constraints during periods of low demand, certain fault conditions and outage seasons.

In collaboration with UK Power Networks, National Grid has launched an initiative to create a reactive power market for distributed energy resources (DERs) connected to the distribution network. The name of this initiative is 'Power Potential' and the intention is to roll out the findings to create regional markets, with National Grid procuring the following services from DERs, through the DNOs:

- Dynamic voltage control services to address unfavourable high and low voltage conditions
- Active power support for constraint management and system balancing

We understand Power Potential has passed through Technical Trials and that Market Trials, whereby the services procured from DERs are compared to established transmission-connected service providers, will conclude in March 2021.

If the trial is successful, we expect the procurement of these services to be readily standardised across all DNOs – this is due to the nature of the process, with National Grid procuring the same services through each of the regional DNOs.

Q8 – What input can you provide to help us prioritise non-DSO Service development:

• what do stakeholders want network operators to facilitate in the near term?

• how can network operators facilitate non-DSO services whilst ensuring system resilience?

• how do network operators create scalable interfaces that allow these markets to flourish?

Q9 – What challenges are flexibility providers currently facing in respect of baseline requirements?

We would identify two main challenges:

- An inconsistent approach across the DNOs
- Timescales associated with revisions of baselines

We understand that a consultant has been appointed to assess existing practices and deliver recommendations for alignment, which could or should address both of these challenges and would be keen to engage directly with the consultant to share our perspectives as a service provider.

We have seen baselines being reviewed after one, four or six years by different DNOs. co terminus with the length of the flexibility contract. The problem with this approach is that the contracts are not long enough to justify an investment on the grounds of the flexibility contract alone. By raising the baseline at the end of the contract period to include the flexibility that has been provided in the period, the risks are that the flexibility provider either leaves the market or continues to operate but is not paid for the service they provide. Neither outcome is economically rationale, nor the basis to build a market.

Instead, we believe there is a strong case to be made for the removal of baselines altogether and for DNOs to procure flexibility services more frequently, akin to what happens in the Capacity Market and other NG ancillary services. This would incentivise existing generators to continue to generate, and new build providers to enter the market in areas where the combined locational signal - flexibility contracts + GDUOS - is most attractive.

This may mean much shorter-term contracts where flexibility providers bid more frequently (arguably the contract length should be no more than the time it takes for networks to implement the alternative grid reinforcement scheme), **provided that a reliable and long term signal can be provided from DUOS credits**. Therefore, it is absolutely essential for the future success of the flexibility market that Ofgem's review delivers a stable regulatory platform where flexibility providers are incentivised to make long term investments based on the long term value they bring to different parts of the network.

Q10 – Open Networks Project will consider if differing DER types such as demand turn up, storage, generation etc should be subject to different methodologies. Do you feel this would be a fair outcome for providers or, would a simple one-size fits all approach encourage more participation?

We believe that there requires to be some form of de-rating for different technologies which recognises the characteristics of each and potential for non-delivery, much as there is in the Capacity Market.

Q11 – Are there any other key aspects Open Networks should consider when investigating potential methodologies?

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Q12 – Please provide feedback on the proposed future activity for consideration and which of these activities should be prioritised in any future scheduled development work in the Open Networks Project?

Flexible Connections are not currently available for managing demand constraints. This creates a bias against energy storage assets seeking flexibility contracts in demand-constrained areas, who have no option but to incur network reinforcement costs.

As *WS1A P5: The Interactions between Flexible Connections (ANM) and Flexibility Services* identifies there is "unlikely to be any conflict observed" in the way that Flexible Connections and Flexibility Services operate, we would encourage the demand-facing Flexible Connections.

Currently it appears as though there is not enough co-ordination within DNOs between the teams that issue grid connection offers and flexibility contracts. If you look at many of the flexibility areas on PICLO which require generation turn up or demand turn down, it is very hard to get a connection offer for battery storage because much of the constraint is being caused by Demand Dominance. Batteries are looked upon as new load, rather than flexible load being able to import electricity when demand is low and export it when demand is high.

Instead of rejecting battery applications in these areas, DNOs should offer flexibility providers either time constrained profiles limiting import to certain times of the day or implement Active Network Management (ANM) schemes as happens with generation. Finally, there should be an increased focus on Generation Dominated Areas where Battery Storage can play a much bigger role reducing peak export if the price signals are right– something which we hope Ofgem's Review of Forward Looking Charges will also address.

Q13 – Under the current arrangements to do you receive sufficient information, in the right format, and at the right time to be able to manage your curtailment risk effectively?

Flexible Connections must be offered with a detailed curtailment analysis to allow proper risk assessment. The curtailment analysis should include month-on-month, time-profiled curtailment predictions. Similarly, during the procurement of flexibility services, participants should be provided with month-on-month, time-profiled utilisation predictions. These predictions could be compared to properly assess the potential for conflicts between a generation turn down signal (from ANM) and a generation turn up signal (as part of the flexibility services contract). Likewise, there should be ongoing reporting of curtailment analysis once a connection is 'live'.

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Q14 – Are there barriers preventing customers with assets with Flexible Connections (ANM) providing flexibility services to the ESO or DSO today?

Whilst there is "unlikely to be any conflict" in the way that Flexible Connections and Flexibility Services operate, the lack of guarantee provided by the ANM curtailment reports can undermine investor confidence; especially for those connections where the predicted level of curtailment is high (>10% annual curtailment) and/or where curtailment could occur during the service delivery windows identified in the flexibility services contracts.

Q15 – How could DNOs better enable customers with Flexible Connections (ANM) to use Flexibility Services to mitigate the current and future curtailment?

DNOs could provide some form of guarantee that if a flexibility service is required (e.g. generation turn up) there will be no conflicting signal sent from the ANM controller.

Q16 – Please provide feedback on the identified barriers and proposed recommendations and which of these recommendations should be prioritised in any future scheduled development work in the Open Networks Project?

We agree in large part with the flexibility report and would encourage greater coordination between the ESO and the DNOs to better enable revenue staking to take place. The ability to participate in multiple services at the same time or switch between services across different time periods will be key to maximising the revenue stack available to a flexibility provider. And the more revenues that can be stacked, the lower the cost of flexibility contracts will be to the DNOs. Standardisation of documentation between DNOs, coordinated timetables for the procurement of services and technology or software platforms which 'talk to each other' will further help facilitate the growth of the flexibility market. That said, the key driver for growth will remain the approach to baselining and the provision of long-term signals from GDUOS.

Q17 – Do you have any ideas on how we might better engage and encourage participation of residential flexibility in flexibility service provision? Can you identify any barriers that might currently exist, along with potential solutions?

Not an area of expertise and we would not, therefore, offer a view on how this can be achieved.

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Q18 – Do you have any ideas on how we might better engage and encourage feedback and input from stakeholders (including non-traditional energy market participants)?

We recognise the significant time and energy that the ENA is investing in stakeholder engagement and communication as part of the Open Networks project, for example the Advisory Panel.

We believe that supplementing this with direct interaction with service providers, while more intensive, will provide useful insights to the challenges and opportunities that the project is seeking to address.

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