
ADR Response | Ofgem Call for Input: The Future of Distributed Flexibility | 10 May 2023

Context

The ADE welcomes the opportunity to respond to Ofgem's Call for Input on The Future of Distributed Flexibility.

The ADE is the UK's leading decentralised energy advocate, focused on creating a more cost effective, low-carbon and user-led energy system. The ADE has 150 members active across a range of technologies, including both the providers and the users of energy equipment and services. Our members have particular expertise in demand side energy services including demand response and storage, combined heat and power, heat networks and energy efficiency.

Overall Evaluation

We strongly support the considerations set out in the CfI and applaud Ofgem for taking a broad view of the issues faced by distributed flexibility market acceleration. As set out below, there are concerns about how such a programme can be carried out in a somewhat discrete way from other government and system operator programmes. Therefore, while a certainty of vision is key, equally important is a confidence of delivery.

CfI Questions

The imperative, potential, and challenges of flexibility

1. What do you think distributed flexibility could contribute to the energy system?

At the ADE, we consider flexibility to be the only way of making an electricity system based on renewable generation work. We note the 80-100GW of flexible capacity noted in NGESO's 2022 A Day in the Life of 2035 compared with the CCGT dominated balancing markets of today, and lack of aggregator access to the wholesale market.¹

Distributed flexibility will be essential in avoiding over build of generation and network, potentially saving the system £16bn per year by 2050. Ofgem accurately laid out the potential contribution of distributed flexibility in the CfI and we support that analysis.

2. Will a focus on CER flexibility also help enable other forms of flexibility, especially distributed flexibility?

It is important here to distinguish between the informational challenges focused on in the CfI and other challenges to market access and participation that different forms of flexibility encounter. On the former, the CfI correctly interprets that gaining visibility of and providing market transparency for CER visibility is a more nascent space and therefore approaching the problem from that perspective will by implication include other sources of flexibility, in particular I&C DSR and batteries.

However, the needs and challenges faced by both can be very different. On engagement, the opportunity cost for industrial and commercial entities hoping to engage in flexibility is fundamentally different than domestic customers and is secondary to their core business purpose.

¹ We note the progression of BSC Mod P415 that seeks to change this.

This can impact lead times, need for revenue certainty, how performance is monitored for variable loads and ability for remote load controllers to intervene. Conversely, there is a more advanced level of understanding of energy strategy for many I&C entities given historical involvement in TRIAD avoidance, the CM, and ESO balancing services.

Therefore, it is important not to assume that simply because the informational challenges are in sync, the solutions to other problems are copasetic.

An approach pivot: The case for change

3. Is there a 'case for change' and a need for a common vision for distributed flexibility?

The ADE agrees that a common vision is needed for distributed flexibility. We believe Ofgem has made a compelling case for change and echoes many of the issues we and our members have been flagging for some time including divergent technical and onboarding requirements, lack of coordination between transmission and distribution markets, and lack of standardised procurement processes. We believe these are critical factors for enabling DSR to reach its full potential and tend to agree that the current pace of progress is sub-optimal.

Even so, the changes envisioned both here and in the Local Governance consultation, if moved forward, will demand strong leadership from Ofgem to ensure there is no hiatus in progress already underway. In particular, close interactions with the technical working groups within Open Networks is needed. Since ESO and DSO licences demand delivery of the final determinations, it may be useful to consider how this work can be enhanced through the new DSO Incentive and greater commitments to coordination in ESO BP 2. Equally, and as discussed further below, coordination with other government programmes is imperative.

4. What is your vision for how to accelerate the delivery of accessible, coordinated and trusted markets for distributed flexibility?

There are foundational issues for accelerating flexibility markets for DSR and storage. The underlying assumptions of current markets were formulated with different asset type and market players in mind. Consequently, services are often designed with implicit barriers from day 1 and become difficult to reform post release. As an example, industry has been engaging with ESO for a number of years on their operational metering requirements and how they relate to aggregated portfolios. Finding answers for the rationale behind rules made decades ago is considerably difficult and has led to delays in bringing forward new options. Thankfully, there is now an innovation project underway to investigate aggregated metering profiles but it is still unclear when such volumes could move in-market. Likewise, the ADE has been working with ESO on reforming the baselining and performance monitoring approach for their new frequency response services, the first being launched in 2020. Although constructive and consistent, this process has been ongoing for over two years and is only now reaching potential completion. Although these examples are related to ESO markets, there are equal, if not greater, challenges encountered within DSO markets due to the nascency of those services. It is acknowledged that system operators are working within their current licence conditions which doesn't always lend itself to future whole system coordination. This is why we strongly support the introduction of the FSO.

From the foregoing, it is essential that markets are designed with DSR in mind rather than trying to reform post hoc. This includes how money and data flows through the system. While a common digital infrastructure would create transparency it does not guarantee trustworthiness, accountability must come as a partner to transparency. In order to accelerate the delivery of these markets, the rules of gatekeeping must be addressed from the foundation upwards. A common digital infrastructure does not guarantee this – it must be an active design choice. In other words, there is very little merit in creating such an infrastructure if the market enablers and barriers

considered as a separate issue in the CfI are not first addressed. This is one reason we support the work undertaken by IBM to consider the deliverability of different models and some of the principles underlying them. In particular, we strongly support the facilitation of small asset participation (Use Case 21) and note that incentivising both electricity suppliers and FSPs equally is an essential element of driving the acceleration of flexibility markets.

As above, while we agree with some distinction being made between information and market barriers, we do not believe this distinction is watertight and therefore appreciate the many use cases considered in the IBM report such as onboarding, asset registration, prequalification, and contract standardisation. These represent important areas of progress that Ofgem need to interact with and accelerate now.

5. Will certainty of an end vision help accelerate enabling work and make it cohesive?

Certainty is critical for the delivery of any common infrastructure. Industry tailors their systems as markets evolve but having a view of the horizon is immensely important in how they go about those alterations and impacts decisions on where and when investments are made. While, of course, all ongoing government and Ofgem programmes are intimately linked we believe the more discrete projects can be kept, the greater certainty can be given to industry. While any common infrastructure must be scalable and adaptable to changes made by REMA (including changes to dispatch mechanisms) or other unforeseen initiatives, it would not be helpful to have a significant piece of work underway without a clear end date, direction of travel and remit made plain from the outset. As above, certainty of vision without confidence of delivery is unhelpful. The leadership needed from Ofgem will also demand that system operators cannot merely opt out of the system in favour of their own platforms, if this is the case then we will likely end up where we started.

6. When should a common digital energy infrastructure be in place? And therefore, when should development begin?

If we consider the projected completion dates for other important reform milestones such as Market Wide Half Hourly Settlement, smart mandates for ESAs, and ESO Balancing Reform, the mid 2020s (2025-27) is increasingly becoming an inflection point for the industry. Therefore, having visibility over and easy access to markets for these millions of assets from the outset is key. We recognise the tightness of this timeline but believe coalescence between disparate reforms is implicit in the principles set forth in the CfI. As above, however, strong leadership from Ofgem will be required to ensure that the market enablers considered elsewhere are being rapidly addressed in the interim, especially for I&C assets already capable of participating in flexibility. The value of delivering the common digital infrastructure will be negated if markets are not accessible to all assets.

What that future could look like

7. What should a common digital energy infrastructure look like, and why? Please consider the archetypes or develop your own proposition.

For any common digital infrastructure to function effectively, system operators must not be able to simply opt-out. As long as they are the predominant procurers of flexibility, standardisation relies on their universal participation. Furthermore, if the underpinning visions are for transparency, coordination and standardisation, it is critical that when a conflict arises as to process, the presumption goes to the market participants offering the flexibility, as per the IBM recommendation. Since the procurers of flexibility are exponentially larger than the vast majority of those offering it, it is important that any common vision for the future takes account of these inequities. It is understandable that certain services will have different parameters depending on

the system need they are addressing. This does not mean, however, that different onboarding, prequalification and performance monitoring requirements are needed.

At the outset, the infrastructure should be designed so as to presume equal access based on how data and money flows through services. In other words, FSPs should not be locked out because of different but equally valid approach to data provision nor should they be locked out because their payment structure is set up in such a way to reward one type of providers and not others. Subsequently, legitimate debates about the operating capabilities of assets and their ability to fulfil the needs of the service can be had.

8. What is your view on the desirability and feasibility of the archetypes or your own alternative proposition?

It is difficult at this point to place full support behind any individual model. However, the principles outlined above tend to adhere most closely to the exchange archetype. This is heavily caveated with the concerns around certainty and hiatus outlined above. Furthermore, any archetype must be capable from the outset of incorporating changes made through REMA, especially the possibility of co-optimisation or central dispatch and this must set out in any early design proposals. Likewise, any legislative changes must accompany a vision for delivery that sets out how the programme would be influenced by different REMA decisions.

Although considered more below, it is also imperative that any moves towards a common infrastructure do not ignore the considerable efforts and innovation already made in this sphere nor imbue the FSO with further market power, especially given the proposals in the local energy governance consultation.

Delivery considerations

9. Should a common digital energy infrastructure be new-build, or should it build-out from existing infrastructure?

Although yet to be launched, there appears to be similarities with ESO's Enduring Auction Capability (EAC). Its co-optimisation function is potentially markedly different however from what is under consideration in the thin and medium archetypes but raises important questions about the role any infrastructure has to play in stacking, or allowing assets to participate in multiple non-conflicting markets. Disallowing stacking has been a consistent issue with current flexibility markets and essentially silos capacity so that it is not used most effectively.

Likewise, other market platforms already exist including with companies such as NODES and Piclo. Ensuring the innovation displayed by industry is not disincentivised or paused is a critical element in managing any transition. The massive progress made to this point must be properly recognised and facilitated in any transition.

Furthermore, if system operators, whether at distribution or transmission level, continue to be the dominant procurers of flexibility and the FSO is to obtain heightened responsibilities as market facilitator for distribution markets, it is unwise for that entity to also become the manager of any common infrastructure.

10. What are the important areas for consideration when designing institutional delivery models for a common digital energy infrastructure?

Deliverability at pace and transparency of process are the key considerations. As above there are already various private and ESO projects that resemble to a certain extent what's under consideration here. Consolidating projects where possible is a sensible approach, as is ensuring that market power is not overly concentrated. From the outset and given the mid-2020s milestones referenced above, pace and scalability should be prioritised.

11. What are the important areas for consideration when designing financial delivery models for a common digital energy infrastructure?

The ADE considers Ofgem has correctly identified the key areas for consideration of how such a project would be financed.

For further information please contact:

Sarah Honan
Policy Manager
Association for Decentralised Energy
Sarah.honan@theade.co.uk
