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Ref : Future of Distributed Flexibility

Thank you for the opportunity to respond to the "Future of Distributed Flexibility".
Please find below E.ON's response.

Summary

E.ON welcome the strategic vision and clearly outlined aims set out by Ofgem in this Call for Input.

We are emphatically supportive of the recognition of what will become the increasingly important role that Consumer-owned Energy Resource (CER) and demand side flexibility will play in reaching net zero.

As we have set out in our detailed responses to the questions, whilst we believe that getting fit for purpose digital infrastructure in place in the long term is critical, this needs to be balanced against the more urgent need for key flexibility enablers to be instigated. We believe that addressing these will be indispensable in order to address the widely acknowledged barriers to entry within the flexibility space. These obstacles include the inability to stack revenues, an absence of standardised products, an unstable set of rules for aggregation and procurement processes which are often opaque and/or not necessarily equitable for all participants.

Key measures required to help unlock the potential of CER specifically, include the nationwide rollout of smart meters, Market Wide Half Hourly Settlement (MWHHS) and smart tariffs. These are all fundamental enablers and ones which seem to be subject to an ever-increasing delivery timeframe. To take the example of smart metering, we believe immediate greater direct Government intervention is required. This could include the mandating of smart meters in Government buildings; public sector institutions such as hospitals, councils and schools; and, ultimately Ministers fully endorsing the principle of "public interest intervention", with smart metering positioned firmly as an enabler of common digital energy

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infrastructure. We also believe more could be being done from a policy perspective to help shape and incentivise business uptake of smart metering.

Whilst we have endeavoured to evaluate the digital infrastructure proposals within this Call for Input (CfI), our over-arching position is that we believe Ofgem should postpone the development of any new digital platform until such time as these fundamental deficiencies have been addressed. As a minimum, we believe revenue stacking and clear commercial/operational terms for distributed ancillary markets need to be properly in place for I&C scale flexibility. For smaller CER scale markets, we believe MWHHS and the universal adoption of smart meters with widespread smart tariffs is required.

We also believe the financial mechanisms for incentivising flexibility should be considered more closely, as well as the incorporation of a meaningful carbon signal, ahead of the development of any electronic platform. We are advocating this approach (i.e. that Ofgem seek to address these issues according to the sequence we have set out) because we believe that, without doing so, as an industry we will be developing a strategic flexibility platform which is highly likely to be redundant at the point in time it is instigated. We also are of the opinion that there is not sufficient clarity at this point in time in relation to the operational and commercial terms under which future flexibility will operate which would also impair the design of a fit for purpose digital platform.

Our belief is that, investing the time to address the existing barriers and develop optimal, easy to understand operational and commercial flexibility terms will, ultimately be of benefit to all bodies within this sphere. This will then enable the rapid instigation of an enduring and efficient digital infrastructure platform when the time is right.

We would also urge Ofgem to ensure that the in-flight reform outlined under RIIO-ED2 as well as the ENAs Open Network reform is not de-prioritised in favour of the measures proposed in this CfI. We cannot continually "re-boot" flexibility reform, else industry will become locked in a perpetual cycle of consulting and refining at the expense of delivery.

Finally, whilst we appreciate the existing capabilities of the ESO and the intended scope of its role as FSO, as we have elaborated in our answers below, we have some concerns over their capability to deliver the digital infrastructure envisaged in this CfI. This is in view of the risks around impartiality, the current IT systems which are substandard, as well as timeframe for implementation limitations which may come about due to the legislative process required for the full implementation of the FSO.

Questions:

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

E.ON agree with the contributions distributed flexibility could deliver to the system as outlined within this CfI, specifically the decarbonisation of heat and transport, alleviation of transmission network constraint/reinforcement, as well as likely cheaper balancing costs and reduced peak demand.

We would also expect the increased consumer engagement that distributed flexibility is likely to deliver will help customers to better appreciate the impact shifting consumption to low demand periods, improving their relationship with the energy industry as a whole.

Unlocking the full benefits of distributed flexibility should also provide advantages for all householders, allowing them to better manage their energy consumption and reduce their bills whilst simultaneously alleviating system strain and supporting the UK's net zero targets.

Distributed flexibility should also support carbon emissions reduction through demand reduction, as well as its role in facilitating renewable generation (the latter of which should also lessen the need for CAPEX spend on other forms of generation). It is also likely to play a role in supporting the nascent hydrogen economy (as this market initially emerges in industrial clusters), as well as contributing towards ancillary services.

Lastly, we would like to emphasise that we have observed distributed flexibility to be well established within the industrial and commercial sphere, with an increasingly engaged customer base. It is our view that, by prioritising the quick delivery of the key enablers we have outlined, this flexibility resource is likely to expand at pace due to the levels of interest we already see.

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

A focus on CER flexibility should also help enable other forms of flexibility, especially distributed flexibility, on the basis that it should strengthen access to the distribution system and flexible markets for DER by default.

CER may also help bring forward increased volumes of SME/small scale commercial flexibility on the basis that it will become a better commercial proposition for this sector.

However, the above is contingent on ensuring the infrastructure, markets, data and communication systems are adapted to be fit for purpose.

We agree with Ofgem that there are measures in flight - the rollout of smart meters, MWHHS and smart tariffs – which will be fundamental to unlocking CER flexibility and, as we have stated in our Summary, we believe that these need to be prioritised ahead (or at least in tandem) with the flexibility market failures outlined under the Case For Change.

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

Yes. There is more than ever a Case for Change due to increased renewable generation, the ambitious (but not unattainable) requirement to decarbonise the electricity system by 2035, the significant investment needed in the transmission and distribution system and the necessary decarbonisation of heat and transport. BEIS's smart system and flexibility plan has demonstrated that without significant levels of flexibility (including CER), the cost of delivering a secure zero carbon electricity system will be billions of pounds higher than with flexibility.

We agree with the market failures outlined by Ofgem in this Cfl, with particular emphasis being placed on the lack of coherency/difficulty in accessing the market which can lead to inefficient/sub-optimal outcomes.

We are also in agreement with the principle that a common vision for distributed flexibility should support expedited delivery and increase the value ascribed to the enablers Ofgem has outlined. Currently, flexibility participants are exposed to multiple, sometimes divergent markets which are often incoherent and can therefore hinder flexibility expansion. As Ofgem state, a common vision should also aid a rapid consensus to be achieved when implementing change via mechanisms such as Code modifications.

Nonetheless, it must be acknowledged that, due to the number of parties involved in distributed flexibility markets, there should be realistic expectations around how achievable a common vision is. It will be impossible to achieve universal consensus and so some degree of pragmatism will inevitably need to be applied. This could be achieved through agreeing a set of broad principles across flexibility market participants, rather than insistence on achieving a single, common vision.

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

Whilst we welcome this Cfl and support the strategic efforts being made which, by their nature cannot necessarily all be implemented immediately and deserve careful consideration, we believe a greater degree of realism may need to be applied.

The pace of change around distributed flexibility and smart systems has been protracted, preventing some "quick wins" being achieved. As stated in our Summary comments we believe that, although the market/strategic failures Ofgem highlight are present, whilst the absence of the key enablers we have outlined persists, it is likely to be counter-productive to attempt to design a fit for purpose digital flexibility platform.

We are also of the opinion that it is currently the case (and we cannot foresee this changing in within the next decade), that the ambition to co-locate I&C and domestic flexibility measures into one single market is unrealistic. We strongly advocate the principle of all flexibility competing within a single market as a long-term ambition, but it must be recognised that the requirements and incentives of

DER and CER are unlikely to converge in the near term. Due to this current misalignment, as well as operational/administrative considerations (such as the inability to aggregate CER without a third-party provider and dispatching efficiencies of very small flexibility resources), that the route to market for both resources will have to remain distinct for the foreseeable future.

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

As touched on in our response to Question 3, certainty of an end vision should, theoretically help enabling work as well as make it cohesive in the sense there would be a clear common goal towards which all parties in flexibility markets would be working. Building on our response to question 4, however, efforts to agree a common end vision should not come at the expense of delivering the "quick wins" urgently needed to reach the 2035 decarbonisation target.

Ultimately, the end goals of all parties involved in flexibility markets should not be incompatible and, as such, the market should naturally evolve to incentivise all to deliver cost effective and efficient low carbon flexibility solutions. An end vision could support this endeavour, but we do not see it as a contingency. We believe it is more important to design the systems, products, data appropriately.

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

As per our stated position, we believe the development of any digital energy infrastructure should be postponed until the fundamental blockers we have highlighted in this Cfl have been addressed more thoroughly. We believe it would also make sense to simultaneously look to embed meaningful locational and carbon signals into the commercial and operational terms within which flexibility will be delivered, both on a CER and DER level.

We are of the opinion that, if Ofgem, industry and consumers invest the time into developing fit for purpose solutions to the barriers/deficiencies we have outlined, whilst at the same time addressing network constraint and decarbonisation, the instigation of Ofgem's envisioned digital infrastructure will be infinitely more attainable, cheaper and long-lasting. Once we are in a position to implement a digital archetype, we believe the "thick" model is optimal as outlined under our response to Question 7.

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

Long term, we support the instigation of a thick archetype as the optimal means of creating an enduring solution to the key failures outlined in the consultation.

Key deliverables such as ease of access for both flexibility providers and buyers, optimisation across the system (which should deliver the most efficient low

carbon flexible solution at the lowest cost) and the ability to resolve primacy issues can only be delivered via a thick archetype.

Under such a model, governance and regulation would be more important than ever, owing to the fact such an archetype would be a repository of large amounts of potentially sensitive market data which raises the very real risk of market manipulation or at the very least a lack of impartiality. This should be a key consideration at the point in time the platform is designed and implemented.

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

As outlined above, we are supportive of the objectives Ofgem have outlined within this Cfl and believe a thick archetype would be the most desirable model (based on existing visibility as to how the flexibility market will evolve), provided it is instigated at the appropriate point in time.

As we have explained in our response to Question 4, whilst, theoretically, a single digital platform could accommodate both CER and DER flexibility in the future, we do not believe it is realistic within the next decade to look to instigate a “one size fits all” platform which looks to provide both a route to market and act as a market delivery mechanism for both sets of resource. We believe it is more realistic to aim for shared market delivery with separate CER and DER routes to market.

As per the Cfl’s commentary, it would be imperative that the responsibility for the design and implementation of an archetype akin to the “thick” model be delivered by a body with the requisite capability. As Ofgem outline in Section 4.1, we agree that there are some obvious advantages a mandated central entity such as the FSO would bring if put into this role. This includes proven industry expertise and accountability ensured through a licensed regime (terms under which it is used to operating in its current guise as ESO). However, we do not believe – from our own experience¹ – that the ESO’s IT systems are currently fit for purpose. This raises concerns over their suitability to take on this critical role and, as a minimum, would require significant investment to upgrade their existing digital capabilities.

It is for this reason, as well as the fact absolute impartiality without the risk of any conflicts of interests arising is imperative, that we believe a new tendered and licensed entity would be most appropriate. This body should be able to achieve an optimal balance between delivering value for money (through competitive tendering/licensing), whilst having the technical capability to instigate the digital infrastructure at the pace required.

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

Once we are in a position to instigate a fit for purpose flexibility platform, we believe this should be new-build. This is consistent with our position that the

¹ In the Capacity Market. ODFM and DFS

optimal body for developing the proposed digital infrastructure would be one allocated the responsibility via a competitive tendering process. However, this does not mean the design cannot or should not draw from features of existing platforms such as the SMP.

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

As we have outlined, the energy market is disaggregated at present, developing at an uneven pace and is expected to become (necessarily) ever more complex as we move to a more decentralised model, particularly with increasing levels of CER participation. Any institutional delivery model needs to achieve the right balance between accommodating this complexity (to ensure optimal decisions are made and the market is fair), whilst widening access for small flexibility providers – right up to householders. We have encouraging early data around the willingness and MW delivery of the latter (which can be facilitated through energy suppliers and flexibility providers) as evidenced under ESO's recent iteration of the Demand Flexibility Service. The inclusion of householder participation will also heighten the importance of data protection as a requirement and will necessarily require an institutional delivery model which accommodates this.

As part of engaging CER in particular, but also to address the lack of information provision, market coordination of operations/access and trust that currently permeates DER flexibility, any delivery model also needs to prioritise transparency.

We believe the design of the optimal delivery model would be best achieved through consultation with industry, energy suppliers and flexibility providers/sellers at the design stage. It is also evident that we are in a period of unprecedented levels of change within the energy industry which is set to continue. As such, any institutional delivery model needs to be capable of adapting to ensure it can accommodate change.

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

Notwithstanding our overall position on instigating a common digital energy infrastructure (and the recommended sequence of deliverables), any pricing and cost recovery process must be transparent for all and incentivise the desired flexibility outcome at least expense to consumers. This could be achieved through assigning delivery to a tendered/licensed entity.

Accountability is also key and so key deliverables need to be agreed by industry, energy suppliers and flexibility providers/sellers, including timeframes for instigation.

In order to maximise participation of CER and allow for accurate remuneration of all flexibility providers, visibility of the amount of flexibility delivered will also be key. This should be achieved via in-flight change such as MWHHS and smart meters to a degree and so sufficient resource/Govt support to achieve these is imperative.

