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Submitted via Email only to smartenergy@beis.gov.uk and flexibility@ofgem.gov.uk

Energy UK Response to BEIS / Ofgem Consultation on the Smart Systems and Flexibility Plan Progress Update

Energy UK welcomes the opportunity to respond to this consultation and recognises the importance of the continuing work of Ofgem and BEIS in progressing towards a smart flexible energy system. The actions set out in the Smart Systems and Flexibility Plan (SSFP) have, to date, largely had a positive influence on the development of frameworks that will define the energy industry in coming years.

The cost-effective delivery of the objectives of the SSFP will be most efficiently achieved as part of wider energy policy. Energy UK believes a coherent approach to wider policy and regulatory changes impacting the economic viability of investment in smart systems and flexibility would provide necessary clarity and confidence to industry and investors.

It is vital to UK businesses and consumers that the energy system adapts quickly and that efficient mechanisms are established across energy markets. This includes the need to:

- Provide an approach to wider energy policy changes that creates a positive environment for investment in smart systems and flexibility.
- Clarify roles and responsibilities across the system as set out in Energy UK's September 2018 report¹.
- Continue a fast pace of implementation whilst ensuring advanced clarity for industry wherever possible to ensure the UK is a global leader in smart flexible energy systems.
- Continue support both for innovation and for the rollout of existing technologies including for: CCUS; local low carbon planning and low carbon clusters, and; technologies enabling greater information provision across distribution-level networks.
- Coordinate DNO incentives and the wider review of the RIIO framework to ensure that innovation learnings and technologies are transitioned into BAU where it is in the best interest of national consumers to do so.

Energy UK and its members hope to see continued progress at a fast pace in 2019 and will continue to engage with all aspects of the plan to enable that progress to continue in the most efficient manner. Energy UK has identified, in the answers below, elements of the plan that require further focus to ensure the best outcomes for consumers, UK Plc. and industry.

Energy UK will continue to engage with government on these elements of the energy transition, particularly in the publication of its *Future of Energy* series, which examines elements of the transition to 2030.

If you have any questions regarding this response or wish to meet to discuss these points or Energy UK views on the SSFP Update Report in further detail, please use the contact details below.

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¹ Roles and Responsibilities in the Provision of Flexibility, Energy UK - https://www.energy-uk.org.uk/publication.html?task=file_download&id=6798

1. Are there actions relating to a smart and flexible energy system that you think we should be prioritising, which are not discussed above (or included in Annex 1)?

Please provide evidence and analysis to support your answer where appropriate.

Whilst Energy UK does not find that the plan is missing particular actions, it finds that certain actions included in the plan are not being appropriately prioritised. Elements of the energy system transition that Energy UK sees as urgent are set out in its publication on *Roles and Responsibilities in the Provision of Flexibility*. Building on the core recommendations of that report, Energy UK believes:

- Commercial activities, including aggregation and provision of competitive ancillary services as well as the ownership of flexibility assets, including energy storage, should be defined as outside of the licensed activities of existing and future network and system operators at transmission and distribution levels.
- Network monitoring and transparency, particularly on distribution networks, must be improved and standardised across Great Britain. Transparent and timely sharing of pertinent information across all appropriate market actors will enable efficient operation of energy flows.
- Relationships, particularly those defining imbalance responsibility, between Aggregators, energy service providers, DSOs, ESOs and Suppliers should be clarified with the support of Ofgem.
- Consumer protections should be introduced across energy services in line with existing selling protections² and the developing code of conduct for demand-side response³. Ofgem should monitor the operation of these schemes and intervene if self-governance does not deliver the required protection.

It is the view of Energy UK that rolling out appropriate monitoring technologies, both hardware and software, across UK networks should be prioritised as part of the SSFP. The deployment of greater network monitoring capabilities, particularly on distribution networks, will directly impact on the direction of travel for the UK. Comprehensive and accurate data across all UK energy networks will allow accurate identification of the needs of the system, ensuring the most appropriate solutions are deployed to meet those requirements.

This increased amount of information will not only save public funding by enabling accurate targeting of investment to areas that need it most, but will also, when shared transparently with the market, enable innovation and private investment to address the needs of the system. Sharing this more accurate and more granular data openly, within the limits set by GDPR and commercial sensitivity, will also enable innovation by actors able to deliver value through utilisation of that data.

While the code of conduct for aggregation of Industrial and Commercial customers proposed by the ADE is welcome, similar protections should be extended to domestic and SME customers. A broader code of conduct may increase customer confidence in participating in the market, aiding in developing these markets and further enabling SMEs and consumers to benefit from participation in DSR.

Energy UK would also note the additional points below, based on progress seen since the original publication of the SSFP. In a broader reflection on progress made to date, there is a need for greater prioritisation of coordination and engagement efforts across Ofgem, Government and industry, given the high number of regulatory, legislative and commercial areas impacted by the plan. A disconnect between Industry, Ofgem and BEIS on the intended direction, speed of travel, or responsible party for any of the plan's actions would result in complications and delays.

Action 1.1, among others, relies upon industry submission of code modifications, and the update report notes Ofgem's continued monitoring of modification progression. A number of code modifications raised by industry to meet the objectives of the Smart Systems and Flexibility Plan have been delayed or deprioritised due to lack of funding for the ESO when acting as Code Administrator.

² <https://www.recc.org.uk/scheme/consumer-code>

³ <https://www.theade.co.uk/news/ade-news/ade-demand-side-response-code-of-conduct-consultation>

These include changes intended to facilitate the connection of distributed energy resources, such as CUSC modification CMP298 on Updating the Statement of Works process. Noting the ongoing Ofgem/BEIS review of industry codes, it seems appropriate that the ESO be given support under existing incentives and governance to ensure adequate resourcing is allocated to the code change process.

Action 1.6 notes the importance of updating connections processes, and continuation of the Incentives on Connections Engagement (ICE) programme is listed as a priority in the SSFP Update. Energy UK would note that the scope of ICE is limited and appears to be only voluntary for DNOs for the sectors in need of connections. As an 'engagement programme' the focus of ICE remains on how DNOs deal with customers, when the need is opening up access to more capacity.

Ofgem may need to reinforce the 2015 ICE Guidance or progress an alternative mechanism to require that DNOs demonstrate steps taken to improve the connections process, even where final connection activities have been designated as contestable. It may be appropriate for DNOs to be assessed under ICE on the amount of new capacity connected as well as on their engagement processes with customers.

Action 1.8 has not been resolved by the recent Ofgem review of the Distribution licence⁴. Although the clear direction of travel is towards removing potential market distortion by disallowing DNO ownership of energy assets including energy storage, licence changes currently only disallow operation of these assets and not ownership. This is contributing to market uncertainty and delaying further investment in storage technologies by appropriate market participants.

Further to this, concerns exist over the lack of certainty on what commercial actions can be taken now or in future by Distribution Network Operators (DNOs) and Distribution System Operators (DSOs), given a clear potential for conflicts of interest. Activities taken under innovation project CLASS raise questions over the classification of a DSO and its remit, as well as the continued role of DNOs in a smart flexible energy system.

It is the position of Energy UK that DNOs and DSOs should not participate in commercial markets, as this would be detrimental to competitiveness and effectiveness of those markets in delivering for consumers' needs.

As set out in existing Energy UK positions on this topic^{5,6} to ensure the successful development of competitive markets addressing localised constraints, clarity is required on what commercial activities DNO and DSO are able to participate in and under what circumstances. This is not directly addressed in the SSFP, but separation of commercial activities must be addressed to ensure the best outcomes for consumers, with full consideration of efficient lowest cost delivery of system security.

Action 3.1: *Ofgem and the ESO will make changes to allow DSR providers to reallocate their assets in the Capacity Market (CM) ahead of prequalification.* Given the current circumstances for the CM and de-prioritisation of work that was being considered in the 5-year review call for evidence, it is important to ensure momentum is not lost due to external factors.

Action 3.3 requires greater focus from Ofgem and Government, in that it is important to ensure that National Grid ESO meets timelines and continues to consult widely and transparently. New national frameworks need to be in place quickly to enable local markets for flexibility to develop in line with national services, markets and processes. Too many elements of the energy system transition rely upon progress in this area to allow this work to fall behind.

As the demands of the energy system change, System Operators need to be able to accurately identify system operability requirements and signal those operational requirements to the market. Utilising

⁴ <https://www.ofgem.gov.uk/publications-and-updates/enabling-competitive-deployment-storage-flexible-energy-system-statutory-consultation-changes-electricity-distribution-licence>

⁵ <https://www.energy-uk.org.uk/publication.html?task=file.download&id=6626>

⁶ <https://www.energy-uk.org.uk/publication.html?task=file.download&id=6767>

smart monitoring technologies, as mentioned throughout this response, System Operators will be able to provide visibility to the market and manage the energy system in a smart flexible manner. National Grid SO and, in future, DSOs will need to provide transparency in both existing and future markets for flexibility services, indicating the expected range of services and the anticipated value of these services.

National Grid's simplification and rationalisation of Ancillary Services is the first step in ensuring transparent and relevant services are established across GB markets. This will, in turn, increase investor confidence, support competitive and efficient markets, and enable System Operators to deliver at lowest cost to consumers.

Action 3.4 is stated in the progress update to be implemented, but is certainly still being progressed under Ofgem's plans, whilst also being counted as a new action within the plan. The use of the term implemented may be misleading in this instance and others seen throughout the action tracker. It may be appropriate to replace this term in future publications given that these actions are still in progress and the associated issues remain unresolved.

While the work of Ofgem to date in reviewing existing charging arrangements, under the TCR, and consulting on access reform and forward-looking charges is a welcome and positive development, it is important that these advance beyond the theoretical. Learnings from these processes should be applied in a coordinated manner to enable a smooth transition, allowing new business models to mature over the coming years. Developing appropriate coordinated frameworks for charging and access will ensure greater market certainty and determine the level of engagement and efficiency of private investment throughout the energy system transition.

Action 3.5 should be updated to incorporate the implementation of innovation into business as usual. The UK's distribution networks need to be upgraded to be more efficient, more controllable and more visible if the system is to become smart and flexible. Existing efforts to coordinate innovation projects under T.E.F (TRANSITION, EFFS, FUSION) are a welcome development, but more effort is needed to coordinate national application of innovative solutions into business as usual where trials have proven the case for integration.

Action 3.8 details the creation of the Smart Systems Forum (SSF) and its role in enabling broader discussions regarding the plan. Whilst the Smart Systems Forum is useful for high-level engagement, and Energy UK has found the meetings to be helpful, more open engagement on the interdependence and coordination of the many aspects of the plan would be useful in engaging a broader range of actors. This would help to ensure greater transparency and facilitate broader, more coordinated engagement in the process.

It should be noted that, as of the submission of this response, the Ofgem-hosted page on the Smart Systems Forum⁷ has not been updated since November 2017. Where appropriate, associated updates of the work of the Forum should be published on that page to enable broadening of engagement ahead of any additional engagement activity.

- 2. Please identify and describe any key research and innovation needs which, if supported with funding in the next five years, could reduce the cost or increase the cost-effective deployment of flexibility in the system.***

Please provide evidence to support your answer where appropriate.

Energy UK's members have made significant contributions to the successful development of innovative technologies and business models in the UK. The many projects seen in the past two years and beyond have benefitted from the additional clarity given by the original publication of the BEIS / Ofgem Smart Systems and Flexibility Plan, a welcome and positive development in UK policy.

⁷ <https://www.ofgem.gov.uk/publications-and-updates/smart-systems-forum>

Further clarity and support for innovation would be welcomed in a number of areas, including in local planning, low carbon clusters, energy system information provision and carbon capture, utilisation and storage (CCUS).

Local planning will require a national framework and allocated funding to ensure coordination and information sharing, but will enable local authorities to collaborate with the energy industry and local enterprises in assigning resources for decarbonisation in the most efficient manner. This includes: targeted deployment of network reinforcement; community engagement to encourage behavioural changes and coordinate wider adoption of low carbon assets, and; the integration of local planning for transport, heat, industry and reliable power supply.

Low carbon clusters are expected to be vital to decarbonising industrial and commercial energy users. Enabling local customers to benefit from a dedicated set of energy resources could enable UK businesses to decarbonise whilst keeping energy costs low. Utilising low carbon generation, low carbon gas production facilities, energy storage and a range of other technologies, should be tested across the UK's industrial clusters with the aid of local authority leadership and national funding.

Information provision across distribution networks has long been identified as an area in need of much improvement. Existing hardware and software could be deployed to enable greater provision of pertinent information from and to network operators, system operators and market participants. Further information on the effective deployment of these technologies at scale will raise the confidence of DNOs in investing in these assets as part of BAU. Deploying these enabling communication and monitoring technologies is a requirement for a smart flexible energy system and needs appropriate focus across the UK's energy networks.

Regarding the use of non-commercial innovation, existing DNO incentives do little to encourage the transition of successful innovation projects funded by the consumer into BAU, even where they would provide benefits to all UK consumers. Energy UK believes that more should be done to promote DNO implementation of key learnings into the real world to help deliver a UK-wide smart grid.

There are still questions over the efficiency of **large scale CCUS** that must be answered to support the UK's decarbonisation plans. If CCUS is successfully trialled in the UK, it will need to be deployed strategically across the country and will become another resource to be called upon in times of need. This should be trialled as a matter of urgency in the early 2020s, in line with the recommendations of the Committee on Climate Change.

Overall, there are many areas in which the UK can now move beyond trials and into commercialisation of proven technologies. This requires continued clarity from government, effective local low carbon planning mechanisms and the removal of any further barriers to new business models.

Energy UK will continue to engage with government on the elements of the energy transition mentioned in this response as the SSFP implementation continues. These points will be noted in the publication of Energy UK's Future of Energy report in early 2019, which will examine elements of the transition to 2030.