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Energy UK
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RE: Energy UK response to the ENA consultation on Commercial Principles for Contracted Flexibility

Dear Farina,

About Energy UK

Energy UK is happy to provide comments to this consultation. Energy UK is the trade association for the energy industry. We represent over 90 members made up of generators and gas and electricity suppliers of all kinds and sizes as well as other businesses operating in the energy industry. Together our members generate more than 90 per cent of the UK's total electricity output, supplying more than 26 million homes and investing more than £11 billion in the British economy in 2012.

Energy UK strongly believes in promoting competitive energy markets that produce good outcomes for consumers. In this context, we are committed to working with Government, regulators, consumer groups and our members to enhance consumer trust and effective engagement. At the same time, Energy UK believes in a stable and predictable regulatory regime that fosters innovation, market entry and growth, bringing benefits to consumers and helping provide the certainty that is needed to encourage investment and enhance the competitiveness of the UK economy.

Executive Summary

This response underpins Energy UK's position on the ENA's paper on '*Commercial Principles for Contracted Flexibility*'. This is a high-level industry view; Energy UK's members may hold different views on particular issues, and many have also submitted responses of their own. We would be happy to discuss any of the points made in further detail with the ENA directly, as well as the Open Networks Advisory Group, which Energy UK is a member of.

In addition, Energy UK members would like reassurance that the ENA and its members are coordinated in gathering responses to their stakeholder consultations. We are aware that there has in the recent past been individual DNO consultations on Active Network Management and the concept of the DSO. In addition, UKPN, and WPD released consultations on their own DSO strategies. We would like assurance that there is co-ordination between each of these consultations, and would ask that they are streamlined, as they are resource intensive.

We consider that the key concerns for Energy UK with regards to the consultation are:

- ▶ The risk that 14 different markets are developed with 14 different interfaces. Energy UK believes that there should be a single market for distributed energy resources across GB. Energy UK would like to see one national interface tool (with a single set of associated policies and procedures) for users, in order to achieve flexibility at the lowest cost to end consumers. It is important, given existing and potential constraints for network operators, that we move towards more active management of the distribution network. Energy UK believes achieving a harmonised system that has a robust and transparent framework should be the

primary goal, over and above rushing this programme through in the short term.

- ▶ Energy UK does not think that any model that makes the DSO the primary contractor for commercial services is cost effective, sensible or efficient. Energy UK members believe it is important that industry continues to be able to sell flexibility products directly to the NETSO. The exception to this is in circumstances where there are existing severe constraints in a distribution network, where the DSO should be enabled to purchase and utilise services to address the risk (local constraints). We therefore support a model that allows market participants to sell contracted flexibility products to both the NETSO and (where appropriate) the DSO.
- ▶ Energy UK would also bring to the ENA's attention that the outcome from the Open Networks Project should be fully compliant with the (EU) Balancing Network Code and the associated developments, including Project TERRE and MARI. While these developments are briefly referenced in this consultation they are not then considered in the context of the 'models' that the paper describes. In addition, with the implementation of the European Network Codes more generally, we are moving towards a more harmonised, synchronized and connected energy system, and we should be moving towards this outcome.
- ▶ With the exception of the Open Network Project Roadmap that considered the possibility that some licence areas may operate as regional DSOs in an 8-year timeframe, there is a working assumption within the '*Commercial Principles for Contracted Flexibility*' document that the DSO role will be filled by the existing DNOs. Assumptions such as this should be avoided in order to ensure that the right DSO structure and capabilities are found first, instead of forcing the solution to fit the chosen actor. Once the solution has been defined, the best candidate should be supported and enabled in the move to becoming a DSO.

If you have any questions please contact Charles Wood at Charles.Wood@energy-uk.org.uk.

Kind regards,

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Energy UK Response to ENA Consultation on Commercial Principles for Contracted Flexibility

Consideration #1: What models (procurement and operation) should be used to allow DER to offer multiple services to multiple entities such as the NETSO and DSOs?

Q1: What are your views on the models outlined in Appendix 1, and how they rate against the Assessment Criteria?

Energy UK believes that, regardless of the market model adopted across GB, that DSOs should be harmonised in their approach. While Energy UK supports the use of trialling as a method for building the right framework, it fundamentally would not be efficient, cost effective or competitive to have multiple models rolled out across 14 different DNO regions. Energy UK would like to see DSOs and the NETSO adopt a harmonised approach from the beginning of this process, to ensure that we, as an industry, maximise the opportunity for synergies.

Energy UK's members have a fundamental issue with any model which places the DSO as a gatekeeper between the NETSO and flexibility providers. Energy UK members believe it is important that industry continues to be able to sell flexibility products directly to the NETSO. Model 4 seems to place the DSO as the focal point of the market, which would not only result in a fragmented energy market, but would cause issues for the NETSO in terms of visibility and access. The exception to this is in circumstances where there are existing severe constraints in distribution network where the DSO should be enabled to purchase and utilise services to address the risk (local constraints). We therefore support a model that allows market participants to sell contracted flexibility products to both the NETSO and, for local system needs (i.e. where appropriate), the DSO. It is critical that there is a two-way system of communication between NETSO and DSO so that the overall system impacts of these operations are considered. Energy UK members oppose Model 6 in particular, as it envisages the DSO as an aggregator, a competitive activity which monopoly participation would interfere with.

Energy UK supports a market model that sets clear lines of communication between the DSO and the NETSO. The ENA need to develop and present the Open Network Project plans on how this will be achieved, ideally before deciding which model to recommend. It is important to recognise that NETSO and DSOs may value flexibility services differently, which will cause clashes and may well incentivise different behaviour. If a DSO and NETSO attempt to remedy an imbalance at the same time, it could result in unforeseen circumstances and an imbalance elsewhere on the network. It is therefore vital that communication lines are strong and clear in order to avoid these issues; the sorts of information that should be shared are information on resource availability and system constraints.

In regards to promoting competition, it is important that as many assets can participate in the contracted flexibility market as possible. Some of the current qualification criteria for individual sites are not appropriate for a system making use of flexibility from aggregated assets. Therefore, reasonable levels of accepted availability should be defined for aggregated DER and DSR to recognise the spread of service providers and permit their participation in multiple services.

Ultimately, Energy UK would like markets to:

- ▶ Maintain existing high levels of competition and customer switching, and the ability of business and retail customers to access a simple and accurate bill;
- ▶ Support the development of a wide range of technologies for a low carbon, secure and affordable generation mix, in order to minimise risk and maximise the opportunities for flexibility;
- ▶ Enable and encourage the recovery of costs from participants responsible for imbalances, rather than spreading cost recovery over the whole market or system, in order to avoid additional costs on consumer bills;
- ▶ Effectively support the system needs of both NETSO and DSO at lowest cost to ensure low network costs on consumer bills;

- ▶ Examine the need for modification and reform of existing market structures to improve market access for providers of flexibility, and promote development and optimal application of services and technologies;
- ▶ Support productization, commoditisation and standardisation of flexibility products to allow for a secondary market to develop;
- ▶ Provide transparency on long-term direction to encourage investment and customer engagement.

Whatever the route towards the full integration of flexibility services across GB, it is important that the final outcome is based on what best serves the consumer, in that it is a low cost, efficient model with least barriers to entry for market participants and customers.

Q2: To what extent do you think it will be possible/desirable to move between different models over time? Please list barriers to implementation where possible.

There is likely to be a transitional period between now and a new functional market model with DSOs, and inherently given the existing regional DNO regime that we have, there is an increased risk of an uncoordinated approach, which Energy UK believes is important to prevent. The balance between enabling innovation and preventing a fragmented set of emerging markets needs to be carefully managed. Trials should be seen as transitional arrangements from the onset, with post-trial roll out of successful practices consistently GB-wide.

Energy UK has identified a number of barriers associated with moving between different market models, as outlined in this consultation, which should be avoided. Energy UK believes that the risks are minimised if there is greater collaboration and transparency throughout the process being undertaken by potential DSOs, the NETSO, Ofgem and the ENA.

Whilst distribution networks are owned by separate entities, fundamental local system needs can be categorised in the same way across the UK. While demand for such services will vary geographically, it is essential that the DSO interface and contract structure for each DER-DSO service is homogenous across the UK. Flexibility providers must not be disadvantaged commercially based on which DNO/DSO they work with, i.e.: While it is accepted that only some areas of the distribution network may require reactive power services, contracting for this service should be the same for any DER regardless of the DSO entity they contract with. Cross-market continuity is key to the success of both future flexibility markets and wider network operations.

There are still issues inherent to the discourse surrounding the move to active network management in the assumption that a DSO would be the result of an evolution of existing DNOs. Whilst DNOs may be the best candidates for the role, there has not been enough modelling of the optimum size of any given DSO based on local assets and attributes. Potentially the best outcome for consumers could be found in a specific size of DSO, be that national, regional or local, and this may not directly correspond to existing DNO territories or resources. This question of scale and suitability should be examined as a part of the modelling process following this consultation. Once this question has been addressed, it will be important to ensure that whichever actor takes on the DSO role is supported and enabled to do so with a national strategy and coordinated approach.

The way in which regulated monopoly networks can engage in a competitive market system for contracted flexibility must be made clear. DSOs must continue to act as an impartial enabler for markets and never as a commercial participant. The DNO may source flexibility from the market to meet their operational needs, but the process for this must be transparent and subject to regulatory oversight. Any surplus flexibility procured by the DSO should not be sold to other market participants resulting in value being transferred from the flexibility provider. Regulated entities playing into markets has an unavoidable effect on a market, even when done via a third party, due to the perceived lack of fair competition and conflict of interest. Ownership of flexibility assets and aggregation of assets by a DNO or DSO would be similar in effect to their ownership of storage or generation assets, therefore we strongly believe that DSOs should not be allowed to sell flexibility

services into any market. For this reason, it is important that the any model chosen allows for competitive markets free from distortion caused by participation from a regulated entity.

Another major concern for Energy UK members about the introduction of DSO markets is the reliance on implementing the advanced, integrated IT systems that are necessary for a successful operating system across both the NETSO, DSOs and market participants. The need for cross-DSO and the NETSO communication and information sharing, alongside the need for close to real-time monitoring of available resources and constraints, means that a comprehensive IT system and significant investment in upgrading monitoring equipment is required for the move to active management of networks. Again, this system will require a collaborative approach across not only DSO and the NETSO, but also market participants and flexibility providers to ensure an interconnected and interoperable GB system.

Q3: What steps should NETSO and DSOs take to remove complexity when providers are providing multiple services to multiple market participants (both at procurement and operational stage)?

Defining Products (system needs and methodology) and Identifying Clashes

It is important for the safe operation of networks that there is sound and robust coordination between DSO and the NETSO. DSO needs should be integrated into the wider national system, and any potential risk of clashes or crossover should be identified and managed. It is entirely plausible, for example, that a local DSO post-fault service may by chance be acting in opposition to a national frequency service need, therefore any one single provider may by happenstance be offering a high priority local service in the opposite direction. In order to achieve this there is a need for open dialogue on how DSO needs fit into existing and developing NETSO offerings.

Energy UK would like to see one national GB website hosting information and being the single interface point for market participant interactions. The aim should be that this one platform (with a single set of associated policies and procedures) will achieve an integrated GB market. It should hold all the information related to different products, and set out how market participants can engage in the market. This will simplify the process and reduce barriers to entry, remove the risk of confusion for stakeholders, prevent conflicting actions being taken simultaneously by stakeholders (be that market participants or network operators), and avoiding additional development (and ongoing operational) costs for industry participants, the NETSO and DSOs arising from having to navigate multiple different sites.

Benchmarking, Standardisation, and Clarity

Regardless of the eventual number of DSOs across GB, it is vital that information is shared between NETSO and DSO as well as across DSOs, and that planning processes are aligned to ensure that there are set levels of operation across network boundaries. We request that the Open Networks Project reviews and develops a proposal on this communication system as a priority within all models. If multiple markets are created, with different associated policies, and procedures and benchmarks, then offering flexibility services will become much more complex and costly for market participants due to differences found across these markets. It would also seem to run counter to the aims of the Balancing Network Code.

We are currently going through the process of implementing multiple European Network Codes, the aim of which is to standardise networks across Europe and create a harmonised system. DSOs and NETSO need to be compliant and adhere to these principles throughout the transition to a DSO.

It is also important that chosen products, or ancillary services, are explained and simplified to allow new market actors to understand what value their services are attributed. These ancillary services should also be seen as an opportunity to simplify the time-based nature of flexibility services. This includes creating separate contract lengths and duration for different services and areas of need; for example, the services may be separated into two categories of near-real-time (for operational users to participate) and forward-contracted (with minimum contract lengths, these are available to all users,

including new connecting parties). Energy UK's response to the System Needs and Product Strategy consultation further details how Energy UK sees the future of ancillary services.¹

Resolving Complexity around Imbalance Arrangements

The impact on supplier, and therefore customers', imbalance charges and the management of that impact needs to be looked at holistically under this project. Suppliers currently need to forecast their customers' demand by BMU. Differences between forecast and actuals result in imbalance charges at portfolio level charged to the supplier. Under some contractual arrangements, these imbalance charges will be charged back to the customers. Suppliers will need real time, full visibility of instruction actions taken by their customers to balance the system, in order to adjust forecasts prior to gate closure. Anything done after gate closure should be handled under a separate process, but again, visibility is required. A review of whole industry imbalance processes is recommended by some members in order to avoid the situation of customers being rewarded under one mechanism for providing flexibility services to networks, but then being penalised under the imbalance system for doing so. The scale of DER activity is expected to significantly increase moving forward so it is important to address the issue now, and create a mechanism that is fit for a 'smart grid system'.

Q4: What is the role of aggregators and suppliers in helping to remove this complexity?

As mentioned in Q1, Energy UK members believe that the DSO itself *must not* act as an aggregator.

Aggregators have a significant role to play in the future energy market in terms of their ability to simplify the available services of their customers, making the NETSO or DSO's role easier to manage. The process of removing complexity should be done in conjunction with all market participants who are capable of collating multiple resources for simplified interaction with the market, including aggregators and suppliers.

Relationships between aggregators and suppliers should be defined wherever possible, with industry codes and relevant contracts setting out responsibility for imbalance payments, information sharing and collaboration. The DNO/DSO has no current ability to reflect the impact of system imbalances, and as such should be given better visibility from suppliers and aggregators to ensure the network is balanced efficiently. Definitions of this relationship should be developed to aid in the efficient growth of these interactions. The ENA can build on the work being done in the various BSC modifications relating to the participation of aggregators in the balancing mechanism.

Consideration #2: How can DSOs and the NETSO ensure sufficient visibility and controllability of DER output for managing transmission and distribution network constraints?

Q5: What are the implications for your business of the need for visibility and controllability of DER output?

Please refer to Energy UK members' consultation responses for their individual views on this.

Consideration #3: How can we ensure the various routes to market for DER can coexist and compete in a coordinated way?

Q6: What are your views on the principles outlined here to ensure the various routes to market for DER can coexist and compete in a coordinated way?

Energy UK would refer back to question 3, and request clarity, structure, and transparency in the move to a DSO based approach across GB. Setting out a roadmap for the NETSO and DSO services

¹ <http://www.energy-uk.org.uk/publication.html?task=file.download&id=6244>

and the ways in which these would interact is vital to allowing DER providers to plan ahead and assign value to their capabilities. Similarly, DSO and NETSO clarity on areas of constraint is important to the successful integration of DER. This includes across network boundaries between DSO or NETSO, where DER and other providers of flexibility should be able to sell their product(s) to multiple parties (be they the NETSO or DSOs, suppliers, traders or others) without complexity or uncertainty over actual need for their service. Definitions of access rights and clarity over connection arrangements are also important for successful asset planning, and coordination between the two will affect the success of the DER market.

Q7: What else needs to be done to ensure distribution network security is maintained for all DER contracted services while at the same time allowing DER the freedom to contract in different markets?

Please refer to individual members' consultation responses.

Consideration #4: How should DER curtailment for transmission constraints be treated from a commercial perspective?

Q8: What are your views on the principles outlined in this section?

Energy UK broadly agrees with the principles outlined in this section of the consultation.

Q9: What are your thoughts on pricing curtailment? Are there other mechanisms that should be taken into consideration?

It is important to note that in certain circumstances it will may be more effective for the DSO to tender on a capacity basis rather than on an energy basis, as DER, DSR, and other flexibility services have different capabilities.

Energy UK supports a competitive solution that delivers constraint management at lowest cost to the consumer. For fairness and cost-efficient whole system outcomes, the same curtailment pricing system needs to be applied to both transmission and distribution connected parties.

Consideration #5: How might distribution congestion management activities develop alongside the transition from DNO to DSO?

Q11: What are your views on how distribution constraints could be managed in the future? We have identified one option above. What other options are available?

Energy UK members support the ENA exploring innovative market-based options, such as the mechanism mentioned in the ENA paper which would allow parties to trade distribution curtailment obligations. Ideally, any DSO-led regional distribution curtailment market should mirror the mechanism of the transmission constraints market. Competitive markets for constraints service provision would lead to the most cost-effective solution for consumers. Again, it is paramount that there is clear communication between DSOs and between the DSO(s) and NETSO regarding the actions each takes in terms of constraint management.

One option listed in the paper, which would allow the DSO to lead the delivery of distribution constraint management services, resembles the Power Potential Project. Until this project has been in operation and stakeholders can review the analysis, it is impossible to take a view on whether this should be developed further.

The options listed include the use of network heat maps. Energy UK members would like to see more information made available which would both allow market participants to better understand the best

points to connect to the network. These should be standardised, in terms of data format and level of detail, across DNOs/DSOs and improved to allow the market to assess where network availability is located.

Q12: What are your thoughts on the transition from the current approach to managing distribution constraints to a more active one that is co-ordinated with transmission constraint management?

Energy UK believes that consideration should be given to commercial distribution access rights, similar to Transmission Entry Capacity, which covers both Maximum Import Capacity and Maximum Export Capacity on Distribution networks. Commercial distribution access rights better lead to appropriate valuation of any constraint or congestion on the distribution network. This valuation of distribution constraint is necessary to inform future network solutions (whether new services are required or investment needed); note in particular the necessity to appropriately value “delaying a decision” or “least worst regrets”.

Far from being the “future”, this valuation of ALL distribution constraints to inform network investment decisions could and should be happening today to inform network investment decision-making. As the DSO service suite develops, this can be added to the toolkit of options considered in the face of local constraint.

The status and future of Active Network Management contracts will inevitably have to be reviewed in planning a transition.

Individual Connection Agreements may need to be updated to allow appropriate recovery of costs for network solutions delivered after energisation. Work will need to be done to reasonably ensure that the costs imposed on one user are no worse than the constraint which would otherwise have occurred, and that these costs can be detailed sufficiently in advance.