

# Open Networks: Future Worlds

Citizens Advice's  
consultation response

**September 2018**



## Introduction

Citizens Advice is pleased to be able to respond to this consultation. Citizens Advice has statutory responsibilities to represent the interests of domestic and small business energy consumers in Great Britain. We have been contributing to the Open Networks project through our response to the Commercial Principles consultation<sup>1</sup> and our membership on the Advisory Group.

The focus on delivering flexibility markets is timely. Consumers stand to benefit from a smart energy system, which is calculated to be £17-40bn<sup>2</sup> cheaper than our current one. Most of these benefits will manifest themselves as savings, i.e. avoided costs, to consumers. But if flexibility markets are designed well, consumers will also be able to earn money directly by selling their flexibility as a service.

That said, we believe that taking part in any form of flexibility market should always be a choice, not a requirement. There is a real risk that consumers who, for whatever reason, are not able to be flexible in their energy use, end up footing higher energy bills. For those consumers, sufficient protections and support must be put in place, and we are contributing to the development of such protections through our work on Ofgem's Targeted Charging Review and Half-Hourly Settlement reform.

Citizens Advice, at this stage, has no firm preference for which "Future World" should be implemented, nor which exact functions DSOs should take on. We support the approach taken by the Open Networks project to, in the first instance, define functions that need to be carried out and conducting a thorough impact assessment before spending consumers' money on changes that will later become redundant. That said, we urge the Open Networks project and individual network companies to progress with building a smart grid, and improving system efficiency by utilising demand side response, distributed generation and energy efficiency. Current and future consumer are losing out if they continue operating GB's networks with a business as usual approach.

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<sup>1</sup> Citizens Advice's response to ENA's Open Networks commercial principles paper, October 2017, <https://www.citizensadvice.org.uk/about-us/policy/policy-research-topics/energy-policy-research-and-consultation-responses/energy-consultation-responses/citizens-advice-response-to-enas-op-en-networks-commercial-principles-paper/>

<sup>2</sup> An analysis of electricity system flexibility for Great Britain, Carbon Trust and Imperial College, 2016

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/568982/An\\_analysis\\_of\\_electricity\\_flexibility\\_for\\_Great\\_Britain.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/568982/An_analysis_of_electricity_flexibility_for_Great_Britain.pdf)

# Response to consultation questions

## The Future Worlds

### **1. We have set out five potential Future Worlds. Do you believe these provide a reasonable spread of potential futures?**

No response provided

### **2. Are there other areas of potential Future Worlds you would like us to consider to inform our thinking?**

No response provided

### **3. Do you have any key concerns with any of the Future Worlds we have set out?**

We note that all Future World diagrams indicate DNOs to be owning and/or operating Flexibility Resources. As long as DNOs and DSOs are one and the same company, this seems to stand in contrast to what the consultation says about neutral market facilitation, and that SOs should not deliver any activities that can be delivered by competitive markets. We provide further comment on this below under the principles for neutral market facilitation.

Although the SGAM work is considering the interactions between the electricity and gas network, the Future Worlds diagrams and descriptions do not show that there will be close coordination between the ESO/ DSOs and the Gas SO/ Gas networks. GB's future smart grid should not be an electricity silo but needs to optimise between vectors, including the gas network, which is greatly impacted by swings in demand on the electricity network.

In World C "Price-Driven Flexibility", we would be concerned about the lack of coordination between the DSOs and ESO which every other world seems to provide. Price signals alone are unlikely to result in perfect outcomes for the local and national network and some level of information exchange or coordination is likely needed.

Finally, World C would put very strong price signals on consumers to shift their energy consumption behaviour. In such a world, we would be concerned that, without protections or support, some consumers would see their bills rise disproportionately. Citizens Advice, through its frontline offices and telephone helpline, is acutely aware of the fact that some consumers will not be able to respond to these price signals - at least not without significant support. This includes those with certain medical conditions, those not technologically able,

those in remote areas who cannot have a functioning smart meter, those not able to afford microgeneration or a timed washing machine, or those in private rented accommodation. Therefore we would like to see strong policies in place to protect these consumer groups prior to any implementation of World C.

## The Smart Grid Architecture Model

### 1. Is there anything missing from the SGAM methodology that has been implemented?

No response provided

### 2. How can SGAM modelling be used in further work to extract maximum value?

No response provided

### 3. What are the limitations of using the SGAM modelling for informing the Impact Assessment?

No response provided

## The principle of neutral market facilitation

### 1. How do you believe neutral market facilitation for SOs can be achieved?

We support all the requirements for a neutral market facilitator that the consultation mentions:

- Ensures non-discriminatory and technology neutral solutions;
- Uses market-mechanisms that are fair, transparent and competitive, providing a level playing field for providers of network services and providers of energy products/services in order to deploy the most efficient and effective solution;
- Supports flexible and innovative solutions in response to customer requirements and develops the network services they require;
- Delivers value to customers and communities.

The text also mentioned that SOs must not deliver “activities that can efficiently and practicably be left to a competitive market”, which we would consider to include that **SOs cannot own or operate directly any Distributed Energy Resources**, including storage and electric vehicle charging infrastructure<sup>3</sup>.

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<sup>3</sup> We have commented elsewhere (<https://www.citizensadvice.org.uk/about-us/policy/policy-research-topics/energy-policy-research>)

Otherwise there is a risk that they favour their flexibility services over others, thereby raising costs for consumers. It would also undermine the confidence of market participants in the impartiality of the SO.

Some of the recently developed principles for the ESO<sup>4</sup> are also applicable to this consultation. For example, we would expect any SO to support market participants to make informed choices by **providing user-friendly, comprehensive and accurate information**, including information that makes visible the opportunities for buyers and sellers of flexibility.

Hand in hand with that goes the requirement to **reduce complexity** for market participants. When designing procurement and operational processes, the SOs should ensure that they are accessible to a wide range of providers.

## **2. What are the possible conflicts of interest that SOs need to be aware of when facilitating the market?**

In the interest of security of supply, SOs may want to put unnecessarily restrictive contracts in place to bind flexibility providers to them. We support the views of the Council of European Energy Regulators which state that providers should be able to give their services to different users in the power system. They should not be bound to the network through a long-term, or otherwise unduly restrictive contract. Such practices will prevent consumers from getting the best value for their flexibility. We understand that a lack of liquidity in flexibility markets in the early stages may necessitate some long-term contracts but these should be amenable in response to changes in the market over time.

There should also be a broader policy discussion about what wider outcomes the use of flexibility should support. Strictly speaking, an SO will want to use the flexibility solution which meets their specific network problem at the cheapest price. But in choosing it, should the SO also take into account long-term sustainability issues, the energy mix in this country, or the economic impact on the flexibility provider?

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-and-consultation-responses/energy-consultation-responses/citizens-advice-response-to-the-smart-ev-consultation-on-the-interim-solution-for-domestic-managed-electric-vehicle-charging/) that the only acceptable exemption we see from this rule is when a local blackout is imminent due to a recent increase in demand through Electric Vehicles (EV) and if this could be prevented by DNOs briefly managing EV charging. We heavily caveated this statement, including that we would prefer DNOs to solve local constraint issues through other means such as market-procured flexibility services, and that such “managed charging” events should only be an interim solution as markets develop or the network is reinforced.

<sup>4</sup> Electricity System Operator Regulatory and Incentive Framework from April 2018 <https://www.ofgem.gov.uk/publications-and-updates/electricity-system-operator-regulatory-and-incentive-framework-april-2018>

### **3. What additional requirements would be appropriate to ensure the neutrality of SOs in facilitating the market?**

Depending on how the role of DSOs develops and what functions they will deliver, it will be important to review - as recently done with the ESO - whether a separation of DNO and DSOs is necessary to deliver the best outcomes for the system and the best value for consumers.

## **Stakeholder insights**

### **1. Which SGAM actor(s) best describes your future role(s)?**

We most closely align with the outlined Consumer Protection Party. In our case, we represent domestic and small and medium business energy consumers, with a particular concern for the needs of vulnerable consumers.

### **2. Do you have any thoughts on the insights gained on this role(s) in each of the Worlds?**

We agree with the statement made in the consultation that our role as a consumer representative will not fundamentally change depending on which Future World comes to pass, but the scope of our work and areas of focus may. We welcome that the consultation highlights the risk of passive customers losing out if they do not, for whatever reason, engage with future flexibility markets. We believe that taking part in flexibility should always be a choice, not a requirement. But as mentioned above, we fear that there will always be consumers who are unable to be “active customers”. For those, sufficient protections and support must be put in place.

### **3. Do you have any comments on the insights drawn on any of the other roles described?**

No response provided

### **4. If you do not feel represented by any of the actors, how do you believe we should capture your role?**

No response provided

## Assessing the Worlds

### **1. Do you agree with the proposed approach and timescales for delivering the assessment? Are there any improvements you would suggest?**

The transition to a smart grid should be structured as cost-efficiently as possible. Therefore we support the completion of an Impact Assessment before strategic changes are made to how DNOs and SO operate. It is also essential that Ofgem and BEIS take fundamental decisions about any restructuring of energy markets and systems, not least because these should be aligned with the Smart and Flexible Systems Plan (July 2017) as well as other energy policies.

We consider it essential that the impact assessment is completed as speedily as possible in order for any decisions to feed into the current RIIO-2 discussions. Any changes to network roles and responsibilities need to be factored into network business plans, which are being written now, and the incentive package, which we expect is being consulted on by Ofgem in December 2018/January 2019.

### **2. Do you agree with the proposed assessment criteria and allocation into cases? What further development would you suggest to the criteria (e.g. any additional criteria) or structure and content of the Impact Assessment?**

We agree that all the assessment criteria identified in the consultation are very relevant and should be considered. We would like to make several suggested additions.

Addition to the Strategic case, customer experience:

- Under fairness, we would like the consultants to consider distributional effects, especially between active and passive consumers.
- Under affordability, we would like the consultants to consider the short term versus long term costs. How will these worlds deliver for current versus future consumers?
- Assess to what extent the flexibility market in each World would be differently complex, accessibility and easy to participate in for different types of customers.

Addition to the Management Case:

- Consider the data requirements of different Worlds, to what extent they require personal data<sup>5</sup> from customers and how compatible this is with

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<sup>5</sup> Note here Ofgem's recent consultation under its Half-Hourly Settlement reform, in which it considers half-hourly energy usage data, when combined with certain other information, as personal data, which under GDPR requires consent from consumers before it can be used for

GDPR. We note here that according to Figure 8.3 in the consultation the proportion of information exchanges differs greatly between the different Worlds.

**3. Is there any data you could provide or suggest we collect to support the assessment?**

No response provided

**4. Do you believe that there are any tensions between different criteria and if so how should priority be built into the assessment?**

No response provided

**5. Are there any functions/roles that need to be considered as a priority area for assessment?**

No response provided

**6. We are considering forming a sub-group to assist with the collation of data for the Impact Assessment; do you think this would be worthwhile and if so would you volunteer to be part of the sub-group?**

No response provided

## **Key enablers for the future**

**1. This is the list of key enablers that we have identified:**

- **Regulatory changes**
- **Organisational changes**
- **Communications infrastructure**
- **IT systems**
- **Network visibility and control**
- **Market engagement**
- **Contract requirements**
- **Funding.**

**Are there more key enablers that we should be considering?**

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different purposes.

<https://www.ofgem.gov.uk/publications-and-updates/consultation-access-half-hourly-electricity-data-settlement-purposes>



We note that the consultation did not mention specific regulatory changes that are required to enable a smart grid, nor did it invite views on what regulatory change is still needed. We believe this is a missed opportunity. It has been almost two years since the Smart and Flexible System consultation by Ofgem and BEIS and it would have been useful to understand what regulatory barriers industry perceives still exist.

The key enablers mentioned in the consultation are mostly in the networks' control. However, it is key to acknowledge the external enablers that smart grids are highly dependent on. The impact assessment will need to make assumptions around the progress of these.

- Market engagement will only get networks so far if, as we assume, most domestic consumers and SMEs will engage with flexibility markets through aggregators and their supplier. Aggregators and Suppliers will need to make attractive offerings to energy consumers which empower them to take part in demand side response. This will need to be accompanied by new regulation to protect consumers from any detriment they may suffer through offering their flexibility as a service.
- The smart meter rollout led by Suppliers, and consumer trust in this new technology
- Half-hourly energy data collection and settlement, being reformed by Ofgem under its Half-Hourly Settlement reform programme
- Grid access rules and network tariffs, which are being reviewed by Ofgem
- The regulatory framework under RII0-2 and how particularly electricity networks will be incentivised to use flexibility, to achieve decarbonisation and whole system outcomes.

As well as focusing on the enablers in their control, the Open Networks project and network companies should seek to feed into these external processes, help them progress, and re-emphasise to responsible parties how key their timely delivery is to enabling a smart grid for GB.

## **2. Do you agree with our short-term investment priorities relating to the key enablers of**

- **Communications,**
- **IT, and**
- **network visibility & control?**

These priorities appear sensible in the absence of direction which future market model will be implemented.

However, early engagement of potential market participants also seems key. This should be part of a strategic assessment of Distributed Energy Resource capacity in each network which will inform DNOs how liquid any flexibility market may be, what value different services may have, and how markets need to be designed to work be accessible for potential participants. Getting flexibility markets to a stage where they are liquid enough to deliver the best value will take time, so starting the market engagement process early is crucial, even if it is only decided later which future world model will be implemented.

### **3. Given our short-term priorities, what actions do you consider need to be taken now to address them?**

No response provided

### **4 Considering the different DSO model Worlds that Workstream 3 has considered, do you think the key enablers differ materially between the Future Worlds?**

No response provided

## **Next steps**

### **1. Do you agree with the proposed next steps?**

No response provided

### **2. The Open Networks Project is prioritising areas of least regrets to deliver the benefits of a smart grid as soon as possible. Is there a specific activity within the functions that we have prioritised that you would like us to focus on for short-term delivery?**

Starting work on areas of least regret seems crucial to start increasing the value that the energy system delivers to consumers.

In order to respond to the question on which areas to tackle, it would be useful to understand which of these areas of no regret deliver the most value to energy consumers, and which ones take the longest to deliver one - both of which should be prioritised. In absence of this information, it appears sensible for networks to prioritise the assessment of their requirements for flexibility services. This seems a key activity to undertake before progressing with flexibility market design. In addition, we would like to see regulatory frameworks

in place for flexibility service provision and connection agreements for flexibility. We would like to avoid situations where consumers engage in flexibility services without adequate regulation being in place to protect them and assure their rights and responsibilities.

**3. Is there any additional work that we need to undertake?**

No response provided

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