Settlement Reform/Charging and Access Team
Email: half-hourlysettlement@ofgem.gov.uk

29 March 2019

Dear Sir/Madam,

Call for Evidence: Potential impacts on consumers following market-wide settlement reform

FSB appreciates the opportunity to respond to the above mentioned consultation. We have recently provided similar evidence to the BEIS consultation on the Smart Meter Implementation Programme, so many of the themes below will be familiar. We acknowledge Ofgem's commitment to recognise the degree of commonality between the two consultations and the commitment to work together with BEIS to ensure that the resulting proposals are coordinated as appropriate.

We would like to draw attention to research that we are currently carrying out with our members to understand some of these issues in more detail. We have referenced which questions below this new evidence may help to answer and have committed to feeding back to Ofgem and BEIS as soon as it becomes available.

The way the UK generates, distributes and uses energy is facing the greatest transformation since the Industrial Revolution. In delivering this new infrastructure landscape, the UK Government has recognised the need to balance security, affordability and sustainability – the energy 'trilemma'. As a country, we must now make difficult decisions about how and where we choose to invest in our critical energy infrastructure.

For businesses – like households – what constitutes a fair cost burden depends on the opportunities and benefits they receive in return for their respective financial contribution. At its most basic, this could simply represent a reduction in energy costs, either immediately or in the longer term. However, energy bills are not the only important factor. Other business benefits may include carbon reduction and energy efficiency, microgeneration and investment opportunities, greater supply chain prospects, new market development, encouragement of innovation, demand management, greater market choice, job creation, an upskilled workforce, and long-term security and risk-reduction. So which energy technologies are most likely to provide these potential benefits and what infrastructure is required to support them? What do small businesses actually want to pay for?

As a group, small businesses are a diverse audience and, depending on their exact circumstances, will prioritise opportunities and risks in different ways.

Following the completion of the Competitions and Markets Authority (CMA) investigation into energy, FSB broadly welcomed remedies for improving the retail energy market, particularly the development of published, comparable prices for microbusinesses. However, the investigation did not extend to looking at how the retail market can empower customers to use less energy or choose how and where their energy is generated. Energy reduction is the single best way that small businesses can save money on their bills, yet the post-CMA market is still not well placed to drive and support this behaviour change.

FSB wants to see a new, smart energy market that acknowledges a diverse customer base and enables smaller businesses to make holistic decisions.

Question 3.1: Individual small non-domestic consumers will differ in their ability and/or willingness to engage with how they use electricity.

a) What are your views on the forms of communication most likely to facilitate/encourage these consumers to engage with their energy usage to help them make an informed choice?
b) What specific information about their energy use could encourage these consumers to engage? Please consider how this information is presented and how regularly it is communicated.

Energy is a significant cost for many businesses, so it is imperative that they are empowered in a smart market. FSB firmly believes that the most effective way of saving money is to use less energy, which requires microbusinesses customers to understand their energy use and make decisions based on real time, well-presented and easily accessible data.

Access to data is vital for energy efficiency – if you cannot measure it, you cannot manage it. Business customers must be empowered to understand and choose what services they pay for, where they can find the best deal, where they can save energy, and where and how their energy is generated. Thirty-three per cent of FSB small businesses believe that energy efficiency savings will offset the increasing cost of their energy, as opposed to just 23 per cent who don't think this will be the case. So, small businesses need support and information to help make these savings wherever possible. The role of data, in this regard, is vital.

FSB is supportive of smart meters, believing they are the vital first step to a smart energy market. However, simply installing this new hardware won't automatically provide any benefits to customers. Instead, the benefits of smart meters will only be realised with the changes to the market, and the resultant changes to customer behaviours, that this technology empowers. Going forward, then, FSB wants to see a new, smart energy market that acknowledges a diverse customer base and enables smaller businesses to make holistic decisions. Business customers must be empowered to understand and choose what services they pay for, where they can find the best deal, where they can save energy, and where and how their energy is generated. In this context, therefore, it is absolutely critical that businesses and consumers – and those operating on their behalf – have timely and secure access to consumption and usage data.

However, there has been a lack of clarity from energy retailers, Government, and regulators, around what a smart market might actually look like for microbusinesses. The focus of retail energy companies has, perhaps understandably, been on rolling out SMETS1 meters to domestic customers in order to meet Government's ambitious deadline. The emphasis has been on the roll-out of the hardware itself, with little thought as to the products and services that customers will be offered by suppliers in future. Customers are currently faced with all of the disruption and costs without any understanding about what benefits (and, for some, risks) a smart energy market will eventually bring.

So customers – particularly business customers – need clarity about what a future smart energy market should look like. FSB has attempted to fill this gap via the publication of two reports – the Price of Power (2017) and Open Energy (2018)[1]. But further research is required. At the moment, the pervasive view among policy makers and industry operators is that the market will eventually decide for itself what it will provide smart customers in future. In which case, it is unsurprising that many microbusiness customers remain sceptical, based on their experiences of the market in the past.

Open Energy

FSB recently published a report into the concept of Open Energy.[2] The solution proposed in this report is to give energy customers more control over their smart meter data and easier access to tariffs available on the market. This can be achieved by:

a. Standardising tariffs and other relevant market information in machine-readable formats to allow automated comparisons of energy tariff offerings.
b. Making smart meter data available through a secure standardised API to approved third parties.
c. Allowing energy customers to delegate contract switching powers to third party intermediaries.

These reforms, described here as 'Open Energy', would increase switching rates and create opportunities for innovative uses of data, including for demand-management purposes that could increase the proportion of the total energy mix from renewables.

This model supports the "Access, Assess, Act" that is used by the CMA to model the customer choice process – businesses and domestic customers need to be able to access the possible offers available to them in the market; they need to be able to assess what tariffs and pricing offers are best for them using their own characteristics; and they need to be able to act to make a transaction, or nominate someone else to act on their behalf.

Open Energy reforms are designed to make switching easier, by eliminating information asymmetries and uncertainty about price and service quality, and to make data available to innovators to allow a new generation of technology that connects individual usage with the demands of the overall grid, and to better integrate people's energy consumption by, for example, giving electric cars the information they need to charge when electricity is cheapest, whenever that might be.

Providers of switching services, 'smart home' demand response services and other services enabled by Open Energy would require access to data that is already public, but provided in a reliable, persistent and standardised format. This would, for example, allow a switching service to automatically detect when a new tariff has entered the market, or when the terms or price of an existing tariff have changed. (Note: this would not require all deals to be made available to all customers – just for TPIs and customers to be aware that they exist and to understand who could access them.)

The consequence of opening up these data sets to anyone who wishes to use them would be to substantially lower barriers to entry for price comparison services and to brokers

[1] https://www.fsb.org.uk/docs/default-source/fsb-org-uk/fsb-open-energy-report-final.pdf?sfvrsn=0

[2] FSB, Open Energy, 2018 – available at: https://www.fsb.org.uk/docs/default-source/fsb-org-uk/fsb-open-energy-report-final.pdf?sfvrsn=0

who could provide accurate price estimates much more easily to customers. In the longer run in a time-of-use pricing environment, standalone services may be able to use information about electricity demand and the burden on the grid to anticipate future prices and further help with efficient demand-response mechanisms.

Eventually, this data would improve incentives for decentralised and local generation schemes, or allow any player able to adjust their demand or supply to offer these services to the transmission or distribution system operator for balancing purposes. This would both make more efficient use of the system as a whole, reducing or postponing the need for rarely used 'peak' capacity, as well as providing an income stream to those who can adjust their use. Small business and domestic energy intermediaries could assess local and national demand, grid constraints and potential income, and plan their own usage and output accordingly.

Giving SME and domestic customers a full view of their own usage will allow them to use third party services to better monitor and adjust their energy usage. In terms of switching and 'smart home' demand response it will dramatically increase in importance after half hourly settlement. This is because half hourly settlement will give each customer a unique demand profile, creating in essence tens of millions of different kinds of electricity customer compared to the current system where each customer's usage over time is standardised from a billing and settlement point of view.[3] The benefits broadly defined would be in three clusters:

1. **Improving oversight and understanding of a household or SME's energy use**, especially when paired with smart devices that can give their own energy usage and, when combined, their per-half-hour cost.

2. **Improved switching,** by allowing businesses and domestic customers to provide historical use data to get a more accurate projection of costs from other potential suppliers.

3. **Variable electricity pricing that allows customers to take advantage of cheaper off-peak rates**, and provides the data to smart devices that can operate or charge when prices are low, reducing the overall cost of the system with benefits for all customers.

In the simplest form, smart meter data shared through a secure API will allow would-be suppliers to give more accurate cost projections, reducing uncertainty about the benefits of switching. This may be more important in a time-of-use pricing world, where it can give users a prediction about costs that is specific to their time-of-use profile. Equally, if half-hourly settlement means that even customers on a flat rate tariff still cost suppliers different amounts according to their time-of-use, it allows suppliers to generate a profitable flat-rate contract or tariff based on expected future use, and/or determine whether it would be worth installing battery storage at that customer's premises.

Secure API access to this data would also allow account management interfaces to show users how much energy they were using, how much it was costing them, and whether better deals were available elsewhere. For certain products this could be extremely useful,

[3] Operations and Settlement: Profiling, (Elexon), available at https://www.elexon.co.uk/operations-settlement/profiling/

especially for SMEs – air conditioning units, for example, are energy-intensive but can be replaced with ice storage units, which create ice during low cost energy periods, and then use the ice to cool when energy is more expensive. Software that can determine the average cost of an air conditioning unit and compare it to the total cost and benefits of switching to an ice storage unit could save many businesses considerable amounts of money, while also reducing peak demand.

Historical and ongoing meter reading data, along with tariff/contract information, could also give smart home technology a fuller picture of when to operate. Most likely, this would involve electric vehicles, heat pumps and/or home storage batteries charging when prices were lowest – perhaps even using a pricing tariff that was variable even if the rest of the customer's energy contract wasn't.

Smart meter data should be made available by suppliers through a secure API, accessible with a password and/or authentication code sent to the account holder's email or online account control panel, and shareable with third parties through an OAuth login.

Question 3.2: Aside from communication, what other measures or initiatives would encourage small non-domestic consumers to become more confident about engaging with their energy use? This engagement may be direct, or through an intermediary/third party.

FSB has long called for better market segmentation of small and microbusiness customers in the energy market. The broad definition of 'microbusiness' includes intensive energy customers using industrial processes, office-based firms that use small amounts of energy for operating laptops and boiling the kettle, and vulnerable businesses struggling to pay their bills. The reason that segmentation is important is that the motivations of small firms in the energy market vary, depending on their circumstances. A more intensive energy user may be extremely motivated by the potential for marginal cost savings. A lower end user, where cost saving is less important, may be more motivated by an offer of innovative technology or environmental sustainability. Those that might be considered vulnerable or disengaged may be most motivated by holistic services offering to make their lives simpler, combining bills and providing peace of mind.

TPIs can play an important role in helping businesses secure the best possible energy deals. But, as the energy landscape changes, the value for money that small businesses associate with their own personal energy deals will increasingly depend on the wider opportunities that come with them. The role of a TPI will become even more important as energy bills increasingly include costs associated with additional products and services, such as energy efficiency advice, renewable-sourced energy and smart technology.

FSB supports the introduction of a regulated TPI industry, one which builds trust by promoting the good and excluding the bad. Before the CMA investigation into the energy market, FSB supported in the development of a draft code of practice for non-domestic TPIs, setting out customer engagement standards (professional and honest behaviour, transparency of information and effective monitoring). Ultimately, the regulation of the TPI industry was not directly addressed by the CMA. However, they did formally acknowledge the problem:

For the benefits of Open Energy to be felt widely, and not just by the most engaged customers, the active work of searching and switching should be delegable to TPIs. Open Energy should include provisions for SME and domestic customers to be able to nominate an agent to act on their behalf for a discrete period of time to switch supplier or carry out other defined contractual actions on their behalf – for example, committing to provide a given amount of energy within a given period, in a decentralised network. This kind of delegation is only valuable with the kind of rich data that Open Energy provides for – but that data will go unused by the majority of customers if they cannot easily allow other firms to use it.

With this power, a customer would find a switching service and give it access to their smart meter data and relevant information like contract details and location, and grant it the power of agency to switch on the customer's behalf. That service can then monitor the market and switch the customer if a better tariff or contract for them becomes available (notifying them with the option to stop the switch if they wish). This power will become more valuable under a half hourly settlement and time-of-use pricing regimes where different patterns of use could produce savings even if the volume of use is the same (remember that at the moment, only volume of use differentiates customers).

Open Energy would change what is meant by customer engagement in the energy market, because it would allow technology to engage on behalf of customers, and substantially reduce the work involved in finding the best deal. This is true whether that engagement takes the form of an intermediary acting as an agent on behalf of the customer, or if it still allows the customer to make the decisions but allows the information to be presented in a much clearer and simpler way (akin to someone finding a train or airfare on a price comparison site).

Question 3.3: Who would be best placed to help small non-domestic consumers to be more engaged with their energy usage? How would this vary with sector and company size?

FSB has research in the field that should help to answer this question. We will feed back to Ofgem once the results have been analysed.

Question 3.4: Based on any relevant evidence you have collected,

a) **what proportion of small non-domestic consumers would be price responsive?**
b) **what enablers would be important and what barriers might exist?**
c) **what volume of load shifting from peak to off-peak periods (%) will a small nondomestic consumer be able to offer? How would this vary with sector and company size?**

FSB has research in the field that should help to answer this question. We will feed back to Ofgem once the results have been analysed.

Question 3.5: A number of different approaches to load shifting exist.

a) **Which approaches to load shifting (direct, or indirect, with or without automation) would small non-domestic consumers be more likely to prefer and respond to?**
b) **What are the risks and benefits of these approaches?**
c) **How could those risks be mitigated?**
d) **Would certain types/groups of small non-domestic consumers favour certain approaches?**
e) **Would certain types/groups of small non-domestic consumers be at greater risk of detriment from certain approaches?**

FSB has research in the field that should help to answer this question. We will feed back to Ofgem once the results have been analysed.

Question 3.6: Which parties (eg suppliers, other third parties, network companies, community schemes etc) do you consider could be best placed and/or trusted to facilitate these above approaches for small non-domestic consumers?

FSB has research in the field that should help to answer this question. We will feed back to Ofgem once the results have been analysed.

Question 3.7: What barriers exist that may prevent small non-domestic consumers from load shifting? Can you identify:

a) **Which particular groups of small non-domestic consumers may face greater barriers than others?**
b) **Are there certain types or levels of consumption that there will be less scope to flex for particular small non-domestic consumers (such as the very smallest)? Are there any which these consumers would consider as "essential" and be unable to shift, such that suppliers, network companies or third parties should not be able to offer to reduce consumers' usage below this limit?**
c) **Are any other protections beyond the current regulatory framework needed to ensure arrangements are appropriate and meet small non-domestic consumers' needs? Please identify any measures you consider would be beneficial and how these may vary with sector and company size.**

Time-of-use tariffs will undoubtedly take on increasing importance as grid infrastructure becomes more stressed. Some businesses are already accustomed to time of use charges, but many smaller firms will not be.

Going forward, their ability to take advantage of these charges will be dependent on the equipment on which they rely, the development of new technology and smart appliances, and the degree to which they can introduce flexibility into their day-to-day activities.

It is clear that some businesses will be more able to take advantage of time of use charges than others, depending on the nature of their operation. Many businesses operate on

different cycles to the average domestic customer. So, a one-size-fits-all approach to time of use charges will not work. In order to drive behaviour change, the market will need to provide not only a price disincentive against using energy at certain times, but also a clear pathway for achieving this. For instance, it may be prudent to consider a recommendation for all users above a certain energy threshold to implement storage, generation and management systems that allow them to run 'off grid' at certain times of the day.

Question 3.11: Which different sectors where small non-domestic consumers are active could benefit from innovative technologies that unlock flexibility and how could other sectors also benefit?

FSB has research in the field that should help to answer this question. We will feed back to Ofgem once the results have been analysed.

Question 3.12: Do you have any views about whether small non-domestic consumers may prefer particular tariff types over others?

FSB has research in the field that should help to answer this question. We will feed back to Ofgem once the results have been analysed.

Question 3.15: How could protections ensure tariffs/choices are appropriate, including in relation to potential new access options?

FSB has research in the field that should help to answer this question. We will feed back to Ofgem once the results have been analysed.

I trust this helps to adequately clarify FSB's position. If you would like any further information or input from FSB, please contact our Deputy Head of Policy, Andrew Poole, at andrew.poole@fsb.org.uk.

Yours faithfully,

Allen Creedy MRTPI FIEMA
Environment and Infrastructure Policy Chair
Federation of Small Businesses