Making a positive difference
for energy consumers

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Potential impacts on consumers following market-wide settlement reform: summary of responses to our Call for Evidence

On 5 February 2019, we published a Call for Evidence[1] regarding potential impacts on consumers following the introduction of market-wide settlement reform[2] and potential reforms to the electricity network access and forward-looking charging framework[3], reflecting the signals and options which these reforms may enable. We used the Call for Evidence to explore and help us better understand impacts on domestic and small non-domestic consumers and how they may respond, depending upon their circumstances and characteristics. We grouped the questions we asked under four themes – consumers' engagement with their energy usage[4]; their ability to load shift; their ability to load shift by adopting new technology; and their awareness and attitude towards different future tariff options, eg time-varying tariffs.

In total, we received 20 responses to the Call for Evidence which came from various stakeholders including suppliers, industry associations (representing both the energy and technology sectors) and consumer bodies. We have published the non-confidential responses on our website to be read alongside this document. In Annex 1 below, we have sought to summarise the key points from stakeholder responses grouped according to our themes. We would like to thank all the stakeholders who responded for providing their views and supporting evidence. We are not taking a position on any of the views expressed in responses received but are publishing them and this summary in the interests of transparency.

Next steps

We will take stakeholders' responses into consideration as we progress our work both on market-wide settlement reform and on electricity network access and forward-looking charging reform. If you wish to discuss the contents of this letter further, please contact the Settlement Reform and/or Charging and Access teams using the details above.

Yours sincerely

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Head of Settlement Reform

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[1] See here: https://www.ofgem.gov.uk/publications-and-updates/call-evidence-potential-impacts-consumers-following-market-wide-settlement-reform

[2] Market-wide electricity settlement reform is a key facilitator of a smart, flexible future energy system. It will allow costs of supply to be attributed more accurately across the day, incentivising suppliers to offer new products and services that help consumers unlock multiple benefits, including flexible use of energy for which they would be rewarded, eg by responding to time-based pricing signals that may enable them to reduce their energy bills.

[3] Further information about our Significant Code Review of electricity network access and forward-looking charging arrangements can be found here: https://www.ofgem.gov.uk/publications-and-updates/electricity-network-access-and-forward-looking-charging-review-significant-code-review-launch-and-wider-decision

[4] By engagement with their energy usage, we mean that consumers use electricity flexibly based on their understanding of the variability of electricity costs over time. This may involve providing flexibility directly or indirectly, with or without automation. We do not mean engagement with the market, ie switching tariff or supplier.

Annex 1: Stakeholder feedback on the Call for Evidence questions

In this Annex, we have sought to summarise the key points from stakeholder responses to our questions, grouped according to our themes. Below we summarise general comments flagged by some respondents followed by a summary of the key points in response to our specific questions in Chapters 2 (domestic consumer impacts) and 3 (small non-domestic consumer impacts).

General comments

1.1. A few respondents provided some general comments about the themes identified in our Call for Evidence in addition to answering the specific questions.

1.2. Some respondents encouraged policymakers (Ofgem and government) to consider holistically the changes required to transition to a smart, flexible energy system. Some stakeholders sought a cumulative assessment of the potential distributional impacts on consumers of all potential policies, with a clear distinction to be made between the roles of Ofgem and government in delivering policy. In particular, one stakeholder suggested that government should provide a strong steer on the extent of protections needed for low-income customers in vulnerable situations in terms of the impacts on bills and more widely on questions of 'fairness'. This respondent also considered that a more radical approach is needed to address how consumers could be affected by the various changes. They suggested that using citizens' juries and other direct consumer engagement, where the changes are explained to consumers, may help provide better evidence of whether consumers would respond in the way policymakers assume, and also how consumers may do so. Ofgem was encouraged to consider whether obtaining consumers' smart meter data for public interest purposes may provide access to better datasets to help us with future policy-making.

1.3. A response from a charity working in the energy sector highlighted evidence from projects and programmes they had run which demonstrated that targeting innovation funding towards vulnerable consumers could help them better manage their bills and increase their thermal comfort. This respondent also highlighted the importance of continuing energy efficiency measures and treating consumers fairly in a future and potentially more complex energy market, eg through the use of long cooling-off periods.

1.4. Some respondents highlighted some general observations they had about the diversity of small non-domestic consumers in terms of business size and sector, expressing the view that these consumers are often time poor when considering their energy supply. Their needs, levels of engagement and load shifting potential will vary as a consequence of these differences, ie different approaches will apply to different consumers. These respondents noted that providing a number of these consumers with managed energy services, as well as focusing their attention on wider business benefits such as carbon reduction, innovation and energy efficiency, may encourage more of them to engage with their energy usage.

1.5. A response from a consumer body suggested some principles that they considered future flexibility ought to adhere to. These include: ensuring flexibility offers made to consumers are fair and inclusive; giving consumers the choice to participate in flexibility and giving the value of being flexible back to them by saving or earning money; the provision of clear, transparent information and fair terms and conditions; and the provision of tools and services that allow consumers to regularly reassess their flexibility as their circumstances change, including ease in moving between or leaving contracts. Additionally, in their view, those consumers not able to be flexible should not be charged beyond what is cost-reflective and people who struggle to pay their bills should be appropriately supported. A clear dispute resolution service and single point of contact for consumers were also recommended by this respondent.

Chapter 2: Domestic Consumers

2.1 All but two respondents provided views against our specific questions about the impacts on domestic consumers. A summary of these views, alongside the questions we asked, is provided below.

Theme – Engagement with energy usage

Question 2.1: Individual 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 consumers to engage with their energy use to help them make informed choices?

b) What specific information about their energy use could encourage consumers to engage? Please consider how this information is presented and how regularly it is communicated.

2.2 Some respondents noted that a mix of forms of communication will be required. These would have to be tailored to different consumers' needs and relevant to them and to their 'journey' as an energy consumer. Timing, for example when an energy contract is to be renewed, could also be key to effective communication as well as the form used.

2.3 A large supplier noted that engaged consumers would expect to receive granular, readily available and consistent data presented online and through their in-home device, for example using graphs, to help them understand and track their energy usage. Another large supplier noted that other consumers, who are less comfortable with online data, may prefer more traditional offline communication.

2.4 A number of respondents noted that all consumers will be seeking clear, simple and easy to understand messages about actual bill or cost savings they could achieve that are relevant to them, as this appears to drive consumer engagement. Having access, with their consent, to consumers' metered data would allow more tailored communication. Face-to-face communication could work, particularly for vulnerable consumers, but it was recognised that it is resource-intensive. Some supplier respondents favoured leaving it to suppliers to test out and research which communication methods work best. They wanted Ofgem to let them innovate, in line with principles-based regulation in this space.

Question 2.2: Aside from communication, what other measures or initiatives would encourage consumers to become more confident about engaging with their energy use? This engagement may be direct, or through an intermediary/third party.

2.5 Some respondents noted that consumers may have decided before receiving any communication whether they intend to engage or not. Other respondents thought that a central independent energy advice service for consumers holding relevant information, for example about who to contact if things go wrong with a product or service, may be needed to build trust in the market. One respondent suggested the setting up of a body, using a suitable business model, to promote and provide information about smart offers so that smart meters and the data they provide act as a gateway to more consumer engagement with new market offers. A respondent representing a national consumer engagement campaign noted their research that consumers do engage more by having a smart meter and would show more interest in new and different tariffs. Some respondents noted that explaining to consumers the clear and attainable benefits they could achieve with particular tariffs and automation may encourage their adoption by those consumers who may currently be less likely to accept them, and who could be excluded from the benefits by not doing so.

2.6 A number of supplier respondents considered themselves as the best parties to engage and communicate with consumers based on their existing relationships. Some respondents suggested using simple language because, as noted in the response of a charity working in the energy sector, an independent source speaking in simple language to consumers is more likely to be trusted by them. A large supplier noted that, where multiple organisations are communicating with consumers, the messaging should be co-ordinated, for example by agreeing and using a frequently asked questions document, to ensure consumers receive a consistent set of information. They referred to lessons that need to be learned from implementing half-hourly settlement for medium and larger non-domestic consumers (P272) in 2017.

2.7 There were mixed views about multiple offerings (bundled products). A response from a consumer body considered that consumers would get confused by complex offerings. In their view, Ofgem needs to understand the interoperability options within the energy sector and reading across to other sectors, for example, the automotive sector (with respect to offerings including electric vehicles (EVs)). Other respondents thought consumers would be open to bundled products if there was a centralised advice service offering objective advice to help them to navigate the market and make suitably informed choices. These respondents considered that this would ensure consistency in advice and assistance, in particular if something goes wrong. They said that product providers would need to use the first opportunity with consumers to offer comprehensive advice in line with their lifestyles and preferences, based on consumers agreeing to share their data for this purpose.

Communicating with consumers specifically about settlement

2.8 Some respondents noted their concerns about communicating with consumers about settlement separately from billing and marketing as consumers would find settlement difficult to understand. Some respondents wanted to use communication about smart metering to introduce consumers to the opportunities offered by settlement reform, eg time-of-use (ToU) tariffs, without having to explain the settlement process itself.

Other comments about engagement with energy usage

2.9 There were other specific comments around the engagement theme. The Information Commissioner's Office (ICO) highlighted the importance of transparency in communications with consumers to encourage them to become more confident in engaging with their energy usage. They made specific reference to observing the General Data Protection Regulation (GDPR) requirements with respect to consumers' energy data. In particular, the party processing consumers' data should be open and honest about how the data is processed and its further use so that consumers can make an informed choice and will be more likely to engage with new initiatives.

2.10 One stakeholder pointed to their research suggesting consumers are more open to ToU tariffs if information about them is communicated effectively and if offers are made attractive, eg if consumers are shown how these products fit with their lifestyle. They said that clear messages about actual achievable cost savings with ToU tariffs would help consumer engagement, as would positive messages about wider benefits, eg a positive environmental impact and benefits for the national grid. A response from an electricity network operator highlighted the use of 'mobile games' used in a recent trial, ie the offer of cash prizes to consumers through their mobile phones in return for offering to turn off appliances at times of high demand, as a way to positively engage consumers and incentivise them to save energy.

Theme – Willingness to load shift

Question 2.3: Based on any relevant evidence you have collected,

a) what proportion of 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 consumer be able to offer?

2.11 Although few respondents provided direct recent evidence, a number did highlight evidence from earlier surveys and trials of consumers' willingness to take up ToU tariffs. They suggested that static (predictable) ToU tariffs would attract more interest than dynamic ToU tariffs.[5] Some respondents highlighted potential factors that would determine whether consumers become more price responsive and amenable to load shifting:

- the rate and speed at which new technologies like EVs are taken up by consumers, as long as the benefits of shifting energy usage (flexible charging) are explained to them and consumers become confident in doing so;
- the availability of suitable load shifting products like ToU tariffs and the associated consumer participation rate;
- the importance to individual households of realising significant financial savings on bills or being rewarded in other ways, eg gift cards;
- consumers being able to save on their bills while making few or modest changes to their existing lifestyles;
- building trust with consumers through an independent centralised energy advice service to guide them with making informed choices about the right tariff for them; and
- the provision of stronger price signals to suppliers that would incentivise them to innovate and develop more streamlined and simpler routes that enable consumers to engage with their energy usage.

2.12 The potential barriers identified included a lack of support (financial, social and policy factors) to consumers to access new technologies that could help them respond to price signals by load shifting. An association representing the technology sector pointed to recent research it had commissioned showing that consumers with a smart meter are more likely to then engage with other smart devices too as they become more confident in using them.

Question 2.4: A number of different approaches to load shifting exist.

a) Which approaches to load shifting (direct, or indirect, with or without automation) would 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 consumers favour certain approaches?
e) Would certain types/groups of consumers be at greater risk of detriment from certain approaches?

These approaches could include but are not limited to:

- ***ToU tariffs***
- ***Tariffs reflecting capacity-based charges, which may involve a defined access limit or different types of access option as described in paragraph 2.6 and Appendix 4.***

[5] Static ToU tariffs are typically 2 or 3-rate tariffs with a predictable daily price schedule and no seasonal changes. A basic dynamic ToU tariff may have different tariff rates at different times within and across days with variable pricing.

2.13 A few respondents to this question noted that a mix of approaches could be deployed in the future, depending on consumers' demand, risk appetite, preferences and levels of engagement. These, in turn, would depend on whether there are sufficiently supported technologies in consumers' homes to allow new products and tariffs to be offered and used. The majority of responses suggested that direct load shifting and automation are more likely to attract consumers than other approaches. These approaches are seen as easy, straightforward, less likely to materially affect consumers' lifestyles, and convenient. In particular, this is the case if the consumer also has the ability to retain manual control as part of the product offering or can agree the parameters for load shifting times with the provider. However, it was also noted that these approaches would also need to have easy exit terms, for example no exit fee, if no longer suitable for a consumer's lifestyle or circumstances.

2.14 A respondent representing a national consumer engagement campaign noted some recent research that found that young families in particular could be attracted by the idea of automating appliances to turn on when energy is cheapest, seeing a financial benefit requiring little effort. A response from a consumer body suggested that industry should reflect on the support mechanisms that could help consumers to use technology well and with ease, for example, the use of set up instructions introducing Demand Side Response (DSR) functionality or built-in default settings to make it easier to engage. Furthermore, they said that industry should consider the balance between control and automation and defining interoperability standards between technology and service offers.

2.15 A number of respondents, mainly suppliers, felt that principles-based regulation would adequately ensure consumers are protected and, at the same time, allow providers to innovate with different approaches. However, some of these respondents were also keen for regulation of Third Party Intermediaries (TPIs) so that all providers are on a level-playing field in terms of ensuring consumers are appropriately protected. The point was made that access to consumers' metered data, with their consent, would need to underpin any of the approaches pursued to allow consumers to make an informed choice from the available tariffs. A large supplier took the view that cybersecurity risks associated with direct load shifting data could be mitigated through adequate security standards, eg ISO 27001.

2.16 Some respondents highlighted the potential risks and benefits of different ToU tariff options, where these are developed in the market. For example, a Critical Peak Rebate (CPR) tariff was seen as helpful to those consumers who are engaged and able to respond promptly to price signals. However, price responsiveness would be a key driver of risks and benefits. For example, dynamic ToU pricing could adversely affect those with limited responsiveness but benefit those more capable of responding. For managed services such as aggregation, some respondents noted a trade-off between loss of control over appliances against a potential cost saving if consumers have the appropriate technology to participate. Some respondents highlighted that various categories of consumers could be more at risk of detriment from more complex or sophisticated approaches to load shifting. These consumers could include those in existing fuel poverty (where they are least price responsive or unable to avoid high price periods), those with least access to supporting technology due to affordability issues, those consumers requiring specialist 'on all day' medical equipment at home (which exposes them to peak period costs), and less flexible households with a 'fixed' lifestyle pattern, such as households with children.

Question 2.5: 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?

2.17 Some respondents referred to parties who are seen as trusted on providing information to consumers, such as Citizens Advice or other consumer bodies: they are seen as being best placed to advise and guide consumers to help them make informed choices. A response from an independent consultant suggested that an independent guide to tariffs produced by Ofgem or Citizens Advice could help consumers understand the main tariff

options. Other respondents considered that suppliers are best placed thanks to their direct relationship with consumers and took the view that regulating TPIs on the same basis as licensed suppliers would ensure there is a level-playing field established for all parties for ensuring consumer protection. Some respondents mentioned strong regulation in terms of consumer protection backed by appropriate advice services, including specialist services in the case of new technology offerings, that go beyond voluntary codes of conduct. In their view, Ofgem and government should consider this as part of the joint Ofgem/BEIS review of the Future Energy Retail Market.

2.18 A large supplier noted that different advice from multiple sources would risk confusing and disengaging consumers from the market. Other respondents suggested that a new central, independent advisory service for energy consumers could provide consistent and objective information to them.

Question 2.6: Certain consumers may face barriers that prevent them from load shifting.

a) What barriers exist that may prevent consumers from load shifting?
b) Which particular groups of domestic consumers may face greater or more significant barriers than others?
c) For particular consumers are there certain types or levels of consumption that there will be less scope to flex (ie are there any forms of consumption that 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)?

2.19 Some respondents noted that those consumers in vulnerable situations are most likely to face barriers to engaging and load shifting due their individual circumstances. They could therefore have increased levels of detriment, on the grounds of:

- limited access to new technology due to cost and affordability concerns. For example, EVs and storage batteries would be expensive for some time for low-income households though they may have the potential to unlock flexibility for these consumers in the longer term. A lack of autonomy over adopting new technologies for private renters for example, and digital exclusion for some consumers, for example in rural areas, were also flagged;
- inability to fit new technology due to limitations on where they live, eg private renters;
- mental and/or physical limitations, that could include disability, low literacy levels, or a need to always have essential medical equipment on, including at peak periods; and
- for those relying on instantaneous electric heat, a limited ability to flex this load in the winter.

2.20 A response from a consumer body noted a number of other barriers to load shifting for consumers more generally, including safety concerns when using appliances in off-peak periods, eg overnight, and a lack of confidence in understanding off-peak times and the practicality of shifting certain loads to those times. An association representing the technology sector mentioned several other cross-cutting barriers, such as a lack of trust in new brands and business models, technology exclusion from more complex products, and concerns over data privacy for some consumers.

2.21 A response from an academic highlighted the concept of flexibility capital: those with more resources will have greater capacity to be flexible in order to obtain increased comfort and convenience while consumers in vulnerable situations are more likely, though not universally so, to have limited flexibility capital. Some respondents suggested that affordability and accessibility concerns could be addressed through greater support, eg community energy schemes that share benefits locally or widening the criteria for the Energy Company Obligation (ECO) to provide help with accessing new technology, such as solar photovoltaics (PV) plus a storage battery. A response from a consumer body noted

that industry should build accessibility, privacy and security into technologies by design to help consumers offer flexibility options directly or indirectly.

2.22 Some respondents listed a number of other limiting factors, such as not having or wanting a smart meter, meaning that these consumers cannot access all the available or most suitable tariffs in the market. It was noted, including by a large supplier, that there is a general lack of consumer awareness about appliance use and which activities use most energy. This could be overcome by access to half-hourly data, leading to tailored advice. They also noted that, as the market developed further, there was a risk that new groups of consumers suffering detriment could emerge, unless they are helped to become flexible. They highlighted that consumers' confidence in new products is key to developing and gaining their trust and that this could have a significant impact on how quickly and to what extent benefits of a smart, flexible energy system may be realised.

2.23 A response from a think-tank and charity working in the utilities sector did not support defining an 'essential' level of consumption for consumers where energy cannot be reduced below that level. They suggested that, provided customers are clear what their options are and the 'treating customers fairly' objective is applied and effectively monitored, this should provide consumers with protection without hampering innovation.

Question 2.7: Do you have any views about the scale of any distributional impacts? How may these be mitigated?

2.24 Those who responded to this question highlighted that there are likely to be winners and losers across, and within, different consumer groups, with low income and other consumers in vulnerable situations potentially at greater risk of losing out due to being less likely to take up new flexibility opportunities. As consumers' costs to serve should be easier to determine with half-hourly data, some respondents considered that this could lead to higher energy costs being passed on to costlier to serve consumers. This impact could be mitigated for some consumers through ToU tariffs but only if they had the ability to respond to price signals, with clarity needed about whether suppliers would actively target these consumers to motivate them to do so.

2.25 A response from a consumer body noted their view that there is no significant evidence suggesting particular groups of consumers in vulnerable circumstances are negatively affected by DSR in aggregate. However, where individuals within these groups are negatively affected, the effects may be more severe. They suggested that Ofgem should be conscious of the risks to these consumers and should monitor the market carefully, acting where necessary to protect these consumers.

2.26 A large supplier noted that, should a price cap be in place when market-wide settlement reform is implemented, suppliers with 'costlier to serve' consumers who cannot load shift should have this taken into account in the price cap methodology. They suggested that this could be done by either allowing each supplier to fully recover electricity costs from each of those customers according to their profile, or by providing a mechanism to level out costs so no one supplier is at a disadvantage compared to others.

2.27 Some respondents noted that distributional impacts should be assessed with or without behaviour change by consumers. They felt that consumers who change behaviour should be rewarded for doing so but those who do not should not be penalised as a result. They also suggested that consumers who do not change behaviour could benefit and be protected through a guarantee that they will be no worse off (this approach had been adopted in some trials) or through a significant 'cooling-off' period. In the view of some respondents, this protection could be offered to vulnerable consumers when they take up a new ToU tariff, whereby they could revert to their previous tariff without penalty if their energy costs under the ToU tariff increased.

2.28 A stakeholder encouraged Ofgem to undertake a rigorous segmental analysis of distributional impacts to determine the scale of 'winners and losers' arising from settlement

reform as part of our Business Case. Other respondents encouraged Ofgem to look at the cumulative distributional impact on consumers across the range of projects Ofgem is working on, including settlement reform and network access reform, to build a broader understanding of the consumer impact. This could help identify appropriate support mechanisms that would help counteract and support certain consumers most at risk of losing out, eg through targeted use of the Warm Home Discount (WHD) Scheme.

Theme – Adoption of innovative technology

Question 2.8: How could innovative technologies or solutions enable more consumers to provide flexibility, either individually or collectively (eg through a community approach)?

2.29 Some respondents highlighted the different new technologies emerging in the market - EVs, storage batteries with or without PVs - that could provide flexibility solutions to consumers or help them to offer flexibility. Other respondents noted peer-to-peer (P2P) trading and aggregation services as new approaches to manage consumers' flexibility, with a response from an academic flagging a project they were running about the social impacts of P2P trading, though no results were available yet. A charity working in the energy sector noted how trials through its Technology Innovation Fund (TIF) had demonstrated the benefits of some new technologies aimed at consumers in vulnerable situations, in particular to help them become flexible. However, this respondent highlighted that these consumers would need support to take up these technologies and that, in the meantime, energy efficiency measures should continue to be funded to help them.

2.30 A number of respondents highlighted that technology solutions could encourage consumers to think about flexibility opportunities that fit with their existing lifestyles, for example a storage battery, but may also encourage them to change behaviour, for example a smart appliance. In either case, it would be the role of technologies, if appropriately supported, to facilitate consumer choices. A large supplier noted how adopting new technologies, with the right support, could open up further bill saving opportunities for consumers through ToU tariffs. Furthermore, community schemes could offer a way of providing and sharing communal benefits from expensive technologies for disadvantaged consumers, such as those in social housing.

Question 2.9: We want to understand what specific concerns or risks of detriment may exist with the use of technology and innovation to enable flexibility.

a) What barriers exist for consumers to access these enabling technologies/innovative products?
b) How could these barriers be overcome?
c) Are there any particular concerns which may apply for certain consumer groups, eg vulnerable consumers (affordability and practicality)?
d) What further protection measures should be considered alongside these technologies?

2.31 In response to this question, some respondents generally identified the following factors as potential barriers to consumers adopting new technologies more widely:

- affordability concerns due to current technology costs, particularly for consumers in low income households;
- access to and confidence in use of technology, eg if the consumer has low literacy levels or a physical and/or mental disability;
- physical space concerns, eg whether a battery can fit within the property;
- autonomy concerns, eg for those in private rented accommodation where tenants have limited ability to change the property without landlord permission;

- consumer engagement levels, eg whether consumers will share their usage data to identify and then use suitable technology. Where consumers are disengaged, they may prefer a managed service in tune with their lifestyle, subject to some manual override ability; and
- consumer awareness concerns, eg whether consumers are aware of potentially beneficial technology offerings that would fit with their lifestyle or give them the ability to change behaviour if they wished to.

2.32 Some respondents noted that certain consumers could benefit from appropriate funding assistance. One supplier thought that existing support schemes like the ECO and support offered through the Office for Low Emission Vehicles (OLEV) may need to be adapted to be better deployed to deliver clear consumer benefits, support engagement with energy usage and deliver whole-system benefits. Similarly, community initiatives, for example provision of solar panel and battery storage to social housing, could assist certain vulnerable consumers to access and save on energy costs through technology offerings. Another stakeholder suggested targeting innovation funding specifically at the vulnerable to provide them with the benefits of innovative technologies.

2.33 Some respondents noted that energy usage reduction, as opposed to load shifting, should not be downplayed as a potential benefit of technology adoption.

2.34 Some suppliers highlighted the importance of principles-based regulation to allow providers to innovate, coupled with TPI regulation to ensure a level-playing field on consumer protection. These respondents noted other ways to protect consumers from potential detriment when adopting new technology solutions, such as long cooling-off periods to allow consumers to decide if the technology solution works for them and removal of exit fees if a consumer chooses a tariff that they find is unsuitable for them later on. A charity working in the energy sector also highlighted that bundling technology with a ToU tariff could tie consumers into an unsuitable arrangement and a centralised independent advice service for energy consumers could assist in providing objective help in a more complex market. A large supplier noted that fuel poor consumers may benefit from local authority support in accessing and using new technology effectively to reduce energy costs.

Theme – Choice of tariffs

Question 2.10: Do you have any views about whether consumers may prefer particular tariff types over others (for reference, some examples of ToU tariffs are listed in Appendix 2, and potential access options are described in Appendix 4)?

2.35 Respondents had a variety of views about which tariffs consumers may find attractive, including flat tariffs and the full range of ToU tariffs highlighted in Appendix 2 of the Call for Evidence (including static and various other ToU tariffs).

2.36 A large supplier noted that, as consumers become more familiar with their granular consumption patterns and how these can be shifted to reduce costs, they may then develop preferences for more sophisticated ToU tariffs.

2.37 A respondent representing a national consumer campaign noted that ToU tariffs need to be communicated well to consumers to obtain their buy-in. Their research suggested that the consumer's usage profile would drive decisions on time-based tariffs, for example full-time workers may prefer 'free' weekend tariffs, while part-time workers may be open to 'free' or off-peak tariffs during the week. This respondent also noted that consumers want tariffs that fit with their lifestyle, including whether they take up compatible automation or DSR options. Their research suggested that almost half of consumers asked said that they would need to see significant (between £100 and £200) annual cost savings from a ToU tariff to take one up.

2.38 A response from an independent consultant suggested that there is the potential for a proliferation of tariffs to appear in the market with different structures that could make it

hard for consumers to compare them. This respondent suggested that there could be a case for a 'standard entry' ToU tariff that all suppliers should have to offer. This tariff could have key features set by Ofgem to help consumers who want a ToU tariff but who are not equipped to compare the full range of tariffs.

2.39 An independent consumer organisation highlighted two factors affecting consumer interest in a ToU tariff: whether a consumer has a smart meter and a consumer's age. A consumer survey they conducted suggested older consumers show less inclination to engage and choose a more 'dynamic' tariff, so they would need more encouragement to engage with 'smart' solutions. An electricity network operator noted previous trial evidence suggesting ToU tariffs could be useful in encouraging usage reduction rather than load shifting and that wet appliance use (laundry, dishwasher) was the most likely source of load shifting potential for ToU tariff customers.

2.40 Most of those who responded to this question took the view that tariffs that are more likely to have greater appeal are those which are simple, clearly communicated and tailored to consumers' lifestyles, potentially with an automation option for less engaged consumers.

Question 2.11: Which types of flexible tariffs and offers are likely to be available following settlement reform, considering the potential network charging and access options described? Please identify specifically the types of tariff options which

a) suppliers are already offering or are developing

b) you expect may emerge following settlement reform

c) you expect suppliers may develop in response to more granular, locationally differing network charging signals and the availability of different access options for their consumers. Would you expect to see such tariffs, automation deals or offers targeted to consumers by location if underlying network charges varied locationally?

2.41 Some respondents saw the potential for locational tariffs to emerge if locational price signals are compatible with the local network access arrangements. One stakeholder noted that a more effective way for local network costs to be accounted for would be through some form of local ancillary services contract where there would be a choice as to whether to pass on the costs to the consumer.

2.42 A response from an independent consultant put forward their view that consumers may be motivated to engage with time-based tariffs when these tariffs are coupled with renewable generation at a local level, supporting this by referring to a recent local energy project funded by the Scottish Government. They also made reference to this project to highlight their view that there is uncertainty about how far fully cost-reflective prices (including significant price spikes) would be acceptable to consumers or to the regulator.

2.43 A response from a consumer body highlighted the need for providers to balance manual control (by consumers) with automation when developing tariffs so that consumers can be flexible with their use if they choose to be, and that new technologies should pre-build this flexibility into their design. A large supplier expected the emergence of broad tariff types in the future based on variable price-bands across the day and across evenings and weekends, and smart flexibility tariffs which could be specific to use of a smart product, eg an appliance or EV.

Question 2.12: Considering any tariff options or packages you have developed or may develop, please provide any evidence of consumers' attitudes or response to them.

2.44 Few responses provided direct evidence of consumer attitudes. A respondent representing a national consumer campaign pointed to their survey evidence suggesting a large majority of consumers working full time would prefer tariffs offering 'free' energy at the weekend while a large majority of consumers working part-time or flexibly would prefer different priced energy on weekdays. A large supplier highlighted an EV-related ToU tariff it had launched and suggested that consumers are generally wary of having to change behaviour to take up ToU tariffs, unless they receive information about them that includes potential cost savings. This respondent also noted broad consumer preference for static ToU tariffs, with less, but material, interest in more dynamic ToU tariffs.

Question 2.13: How far could principles-based obligations help ensure tariffs/choices are appropriate, including in relation to potential new access options?

2.45 Most respondents, including large suppliers, considered that principles-based regulation provides the right balance in terms of protecting consumers when they make tariff choices while also allowing providers to innovate. Large suppliers also noted that existing regulation ensures that consumers can make informed decisions. Some respondents also supported regulation for TPIs to create a level-playing field with licensed suppliers and noted that the current principles-based regulation framework in supply licences could be compatible with regulating emerging ToU tariffs. Some other respondents took a different view, highlighting that the potential complexity of emerging ToU tariffs means additional consumer protection may need to be considered. A response from a consumer body suggested that Ofgem consider enhanced protection for consumers who provide flexibility, regardless of whether they do so through a supplier, demand aggregator or any other intermediary. Some respondents pointed to areas for further protection to ensure consumers are treated fairly, such as whether it would be explained to consumers if prices would be capped, if consumers would take the full risk of price spikes, and how consumers would be informed of 'dynamic' pricing so they could respond to price signals. This would require clear, easy to understand information provided to consumers to avoid potential detriment. Respondents in general suggested that the regulatory framework should allow all relevant tariffs to come to market.

2.46 Two respondents suggested a higher level of compliance requirement on providers when consumers are asked to take up more complex tariffs. Their view was that Ofgem should review current approaches taken towards existing Economy 7 and 10 consumers, and whether they are treated fairly by suppliers in that part of the energy market, to understand if there are lessons to be learned that may have wider applicability in relation to ToU tariffs in the future. A response from a consumer body noted that consumers engaging with DSR options in their tariffs ought to have access to independent, impartial advice for help and support. It was suggested that new flexible ToU tariffs could also confuse consumers, unless backed by more robust consumer protection to avoid possible detriment.

Chapter 3 - Small Non-Domestic Consumers

3.1 Fewer respondents answered our questions about small non-domestic consumer impacts, compared with responses about domestic consumer impacts. Respondents broadly indicated that small non-domestic consumers would face similar issues as domestic consumers, but with some specific additional considerations for small non-domestic consumers. A summary of the views we received from respondents is below. In addition, an association representing small businesses flagged a survey that they were conducting with their members and noted their willingness to share its results with us once completed.

Theme – Engagement with energy usage

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 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.

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.

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?

3.2 An association representing small businesses highlighted that small businesses are a diverse audience and, depending on their exact circumstances, will prioritise opportunities and risks in different ways. A number of respondents noted that it would be productive for suppliers and other service providers to talk more directly to small non-domestic consumers about the savings they could make, for example with a ToU tariff, as this drives choice.

3.3 A non-domestic supplier suggested various ways to communicate with these consumers. For example, digital media such as online, email and smartphone apps would be seen as effective, with messages tailored to each individual business's characteristics and requirements. They also noted that, according to their research, small businesses would rather reduce, than increase, the touchpoints for communication with their supplier. In their view, it is crucial that suppliers are free to innovate to develop the most appropriate solutions for their customers. For example, a real-time dashboard or app with tailored information showing simple and easy-to-understand data would be useful without being burdensome. An association representing small businesses highlighted energy reduction as being more of a motivation to these consumers in order to save money than using energy flexibly.

3.4 A non-domestic supplier noted that providing comparative energy usage data that is relatable, such as for a business of the similar size and in the same sector, could help provide these consumers with more meaningful insight into their own use and help them to engage. In addition, using benchmarking of their energy use would also help them as they are considered as generally 'time poor'. Some respondents noted that allowing suppliers to innovate with communication methods was important. Furthermore, a number of respondents held the view that where TPIs play a greater role in informing all types of

consumers in the future, this role should be subject to robust regulation. Some respondents noted that aggregators may become more relevant to engaging with small non-domestic consumers, particularly for direct or automated load shifting services, but felt that their role, and the regulation around it, needs to be considered in the joint BEIS/Ofgem review of future retail market arrangements.

Theme – Willingness to load shift

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 non-domestic consumer be able to offer? How would this vary with sector and company size?

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?

These approaches could include but are not limited to:
- ***ToU tariffs***
- ***Tariffs reflecting capacity-based charges, which may involve a defined access limit or different types of access option as described above and in Appendix 4.***

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?

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? 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.

3.5 It was noted by some respondents that only limited data is available for these consumers as few participate in trials about load shifting potential. A non-domestic supplier noted a preference amongst these consumers for fully fixed prices, and said that few small non-domestic consumers are likely to respond to price signals. In their view, TPIs and managed DSR could become more relevant to these consumers in the future, as they may offer a managed 'hassle-free' solution. Technology developers, or providers, were also

mentioned as a future trusted source of information for small non-domestic consumers. However, the overriding view of this supplier was that suppliers, with their existing direct contractual relationships with these consumers and their knowledge of the market, would be best placed to offer advice and expertise to support these businesses. In addition, it was their view that only the most energy intensive consumers will be willing to engage with the aim of making potential savings (although this may require higher investments or bigger changes on their part).

3.6 Some respondents noted some barriers for these consumers to offering flexibility that are similar to those for domestic consumers. Small-non domestic consumers are diverse, and so flexibility potential would vary. The key barriers suggested included: operating from rented properties, meaning they may be unable to invest in suitable technology; the inability to shift operations from peak time due to preferred operating hours, eg pubs and restaurants; and, for EV owners, a lack of local charging infrastructure.

3.7 A number of respondents noted that automated solutions could be attractive, as well as installation of onsite generation and intelligent load management by a third party that learned from and managed these consumers' usage patterns. However, some respondents noted that more research is needed with these consumers due to the variety of business types, sizes, consumption patterns and demand needs. In particular, a non-domestic supplier suggested that, prior to undertaking that research, it would be important to define what constitutes 'essential' use, ie 'essential' to maintaining the existing business operations, or 'essential' for the preservation of life, well-being or security? It was this supplier's view that it is ultimately up to consumers to choose whether or not they are willing to enter an arrangement that could require them to load shift. It was also their view that it is for these consumers to be able to choose, albeit at a cost, whether or not they are willing to shift load and under what circumstances, and not have this imposed on them by suppliers or regulation.

Theme – Adoption of innovative technology

Question 3.8: Which technologies could be useful for small non-domestic consumers to help them offer flexibility and gain better control of their own energy usage, if they chose to do so? How does this vary with sector and company size?

Question 3.9: Who would small non-domestic consumers trust to provide an automation or load management service (eg direct control over their demand) to them, eg if using an innovative solution like battery storage? What specific protections may these consumers need? Would they be more likely to offer flexibility if it were automated?

Question 3.10: What are the circumstances in which a communal solution could bring more benefit to small non-domestic consumers (sharing risks/benefits of offering flexibility) and are there any specific protections needed?

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?

3.8 A non-domestic supplier suggested that the most likely circumstances where technology would help some of these consumers to have flexibility potential may be where there is some form of load that can be interrupted without any change in the customer experience, such as those consumers with air conditioning and refrigeration rather than those with only lighting or office equipment costs. Any technology should be affordable and non-invasive to be attractive to the consumer. This respondent also highlighted the need for clear, frequent and simple usable and available data to address the issue of small non-domestic consumers being 'time poor'. They also noted their view that small non-domestic consumers are more likely to value an automated/managed service to offer flexibility. They

said that, although additional protections should be unnecessary for these consumers as long as suppliers allow them to make informed choices, appropriate protections may need to be considered for those consumers contracting with parties other than suppliers where contracts are agreed on the basis of estimated pay-back periods or energy savings.

3.9 A large supplier noted that physical space to accommodate new technologies onsite, such as a storage battery, and the investment involved, may affect take up. Some respondents noted that there may need to be more regulation, especially if non-licensed parties are providing the technology solution. A response from a consumer body noted their view that while a voluntary code of practice for aggregation services was welcome (for example the Flex Assure scheme established by the Association for Decentralised Energy (ADE)), it would only provide an interim solution for small non-domestic consumers. They felt that strengthening regulation over these providers would be needed, especially if DSR arrangements become more complex and flexibility markets become more widespread.

3.10 Some suppliers remarked that there is scope for community-based solutions to work in specific instances, such as solar PV in office blocks, shopping centres and business parks, and that energy suppliers could develop and offer these solutions. In their view, non-suppliers providing these solutions would need to be subject to regulation to protect consumers.

Theme – Choice of tariffs

Question 3.12: Do you have any views about whether small non-domestic consumers may prefer particular tariff types over others (for reference some examples of ToU tariffs are listed in Appendix 2, and potential access options are described above and in Appendix 4)?

Please consider how this may differ by different types of small non-domestic consumers, eg by sector/company size.

Question 3.13: Which types of flexible tariffs and offers are likely to be available to small non-domestic consumers following settlement reform, considering the potential network charging and access options described? Please identify specifically the types of tariff options which

a) suppliers are already offering or are developing

b) you expect may emerge following settlement reform

c) you expect suppliers may develop in response to more granular, locationally differing network charging signals and the availability of different access options for their consumers.

Would you expect to see such tariffs, automation deals or offers targeted to small non-domestic consumers by location, if underlying network charges varied locationally?

Question 3.14: Considering any tariff options or packages you have developed, please provide any evidence of consumers' attitudes or response to them.

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

3.11 Some respondents to these questions noted the lack of research and useable data about whether ToU tariffs would be attractive to small non-domestic consumers. They noted that, because of diversity in size and across sectors, it is difficult to determine levels of interest.

3.12 Some respondents noted similar issues on tariff choices for these consumers as is the case for domestic consumers. A consumer body highlighted in their response to these questions a recent study by an electricity network operator that concluded that small businesses value an uninterrupted electricity supply a lot more than domestic consumers.

3.13 A large supplier highlighted their experience with large non-domestic consumers who are settled on a half-hourly basis and that do not opt for ToU products because of their complexity. They noted how they actively promote pass through options to their smaller non-domestic customers, but, based on experience, they continue to find that these customers tend to opt for fixed price options. A vast majority of their non-domestic half-hourly settled customers also still opt for 'simple' one- or two-rate 'bundled' contract structures. They also noted that, in their view, any transition to ToU contracts could have an impact on an end user's profile of cash flow throughout the year. A non-domestic supplier noted that they provide prices to customers based on their location, taking into account different third-party costs (network charges) they incur to supply customers' premises. They considered it challenging to address the question of which tariffs may develop if underlying network charges varied locationally and temporally in the future.

3.14 A non-domestic supplier noted that although small businesses traditionally have preferences for tariff simplicity and price certainty, this should not preclude them from participating in load shifting or taking up ToU tariffs as energy suppliers and other parties will develop attractive services that will manage the complexity for them.

3.15 Some respondents noted that existing principles-based regulation provided the right balance between protection and allowing licensed suppliers to innovate on tariffs. However, a number of these respondents highlighted their view that there needs to be a level-playing field, through appropriately regulating TPIs, to ensure adequate consumer protections are in place once ToU tariffs are rolled out to these consumers.