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Settlement Reform: Consumer Impacts - including Network Access/Charging issues

Stakeholder Workshop

08/02/19

Agenda for today

1) Welcome and introductions

2) Background on Settlement Reform and Network Access and Charging projects

3) Discussion of Call for Evidence

4) Stakeholder perspectives

Lunch - approx. 12:30

5) Scenarios discussion

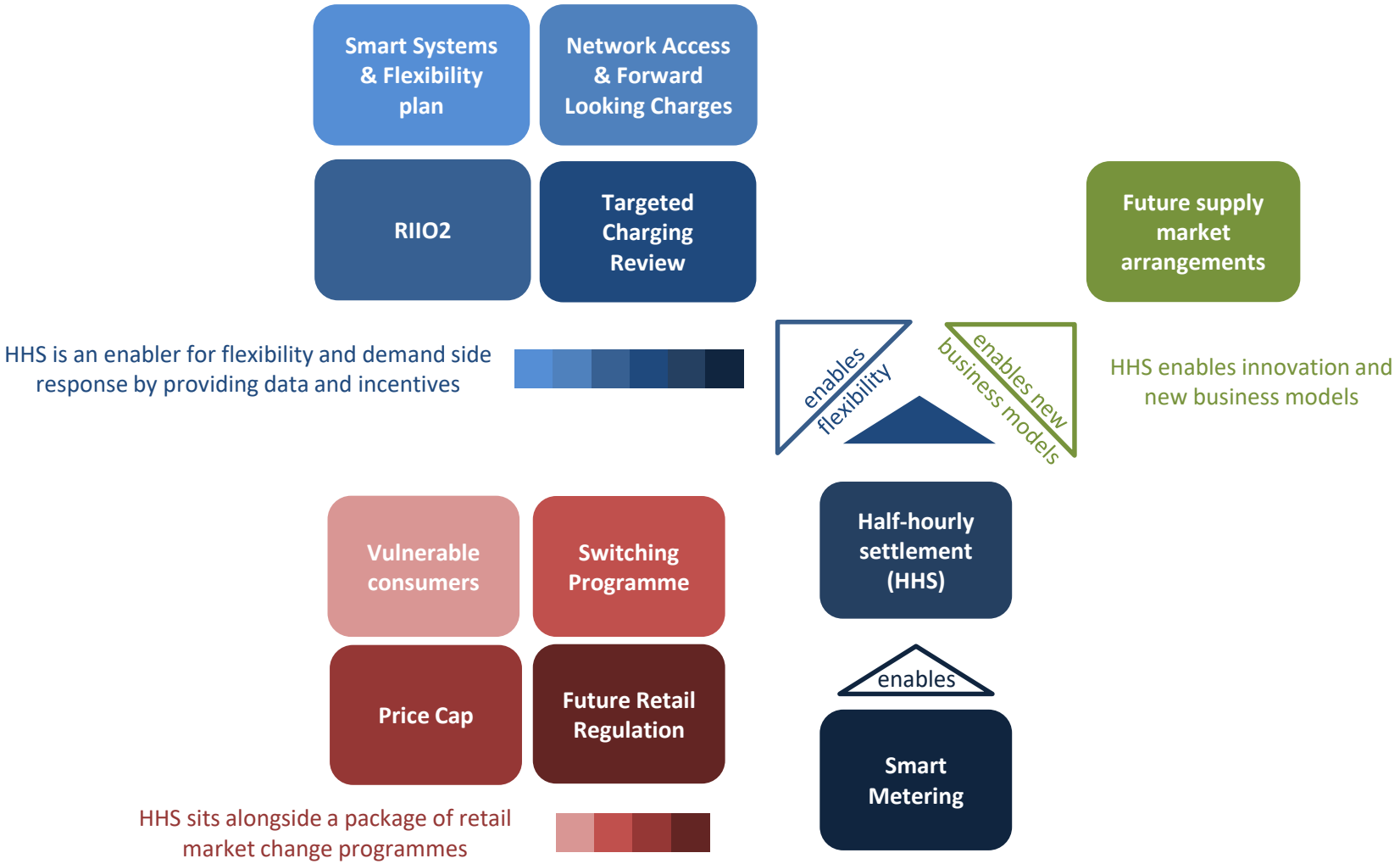
6) Presentation of feedback from scenarios discussion

Wrap up – approx. 1530

To contact us, please email halfhourlysettlement@ofgem.gov.uk or NetworkAccessReform@ofgem.gov.uk

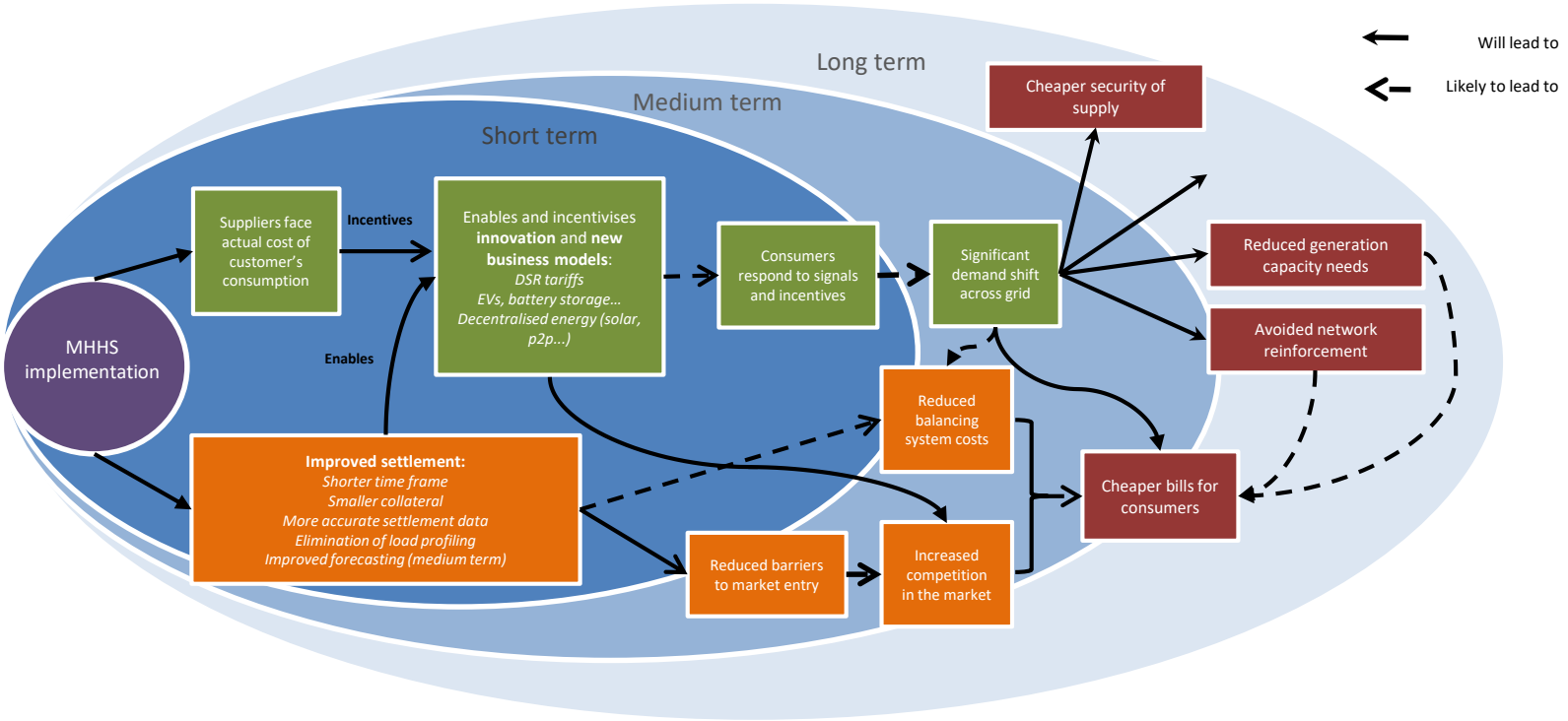
Introduction

Settlement Reform: Strategic interactions



Settlement Reform: Benefits

In July 2017, we launched our Significant Code Review (SCR) for Market-wide Half-Hourly Settlement (MHHS)

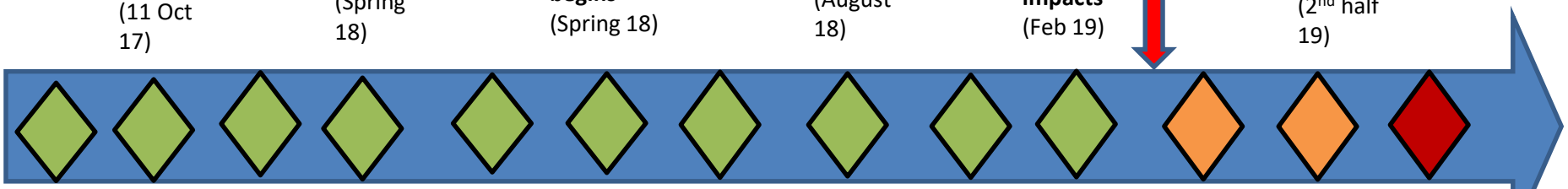


MHHS has a fundamental role in delivering a smart energy system which could save consumers up to £40bn off their energy bills in the coming decades.

Settlement Reform: Timeline

July 2017

Winter 2019



SCR launch (24 July 17)

1st TOM Design Working Group (11 Oct 17)

Strategic Business Case (8 Feb 18)

Working paper on agent functions (Spring 18)

Skeleton TOM options consultation (30 Apr 18)

Stage 2 TOM work begins (Spring 18)

Access to data consultation (Summer 18)

Outline Business Case (August 18)

Consultation on agent functions (Sep 18)

Call for Evidence - HHS consumer impacts (Feb 19)

Design Working Group deliver detailed TOM and Ofgem 2nd RFI (Spring 19)

Full Business Case (2nd half 19)

Decision on MHHS (2nd half 19)

Settlement Reform: Workstreams

Business Case:

- We have published our Outline Business Case - which will lead to our final decision on Market-wide Half-Hourly Settlement (MHHS).
- Work is ongoing on the Request for Information which will go out later this spring and will feed into our impact assessment and then the Full Business Case.

Target Operating Model:

- The Target Operating Model (TOM) will set out the future operation of MHHS as well as the transition. The ELEXON-chaired Design Working Group (DWG) is undertaking the design work to develop and deliver the preferred TOM. The Design Advisory Board (DAB) advise the Ofgem Senior Responsible Owner who will take the final decision on the TOM.

- Elexon will be consulting shortly on the DWG's preferred TOM.

Settlement Reform: Workstreams

Policy and consumer work:

- Call for Evidence published on consumer impacts – Feb 2019
- Approach to access for data for settlement – in our consultation, we said we thought an opt-out approach gave the best balance. We are currently considering the evidence submitted.
- Agent functions – we proposed not to centralise agent functions, but said we thought there might be a case for a model where data is not aggregated prior to submission into central settlement. Currently considering the evidence submitted.
- Least regrets steer: We provided the DWG with the least regrets steer that the design of the TOM should proceed without Enhanced Privacy, and for the DWG to consider our proposed position on agent functions.
  - A least regrets steer is not our final decision and we will continue to carefully consider the responses from the consultations. When we reach our decisions and publish them, we will liaise with ELEXON to make any necessary adjustments to the project plan.

Electricity Network Access - Decision to launch a Significant Code Review

In December 2018, we decided to launch a Significant Code Review of access and forward-looking charges

Our objective:

We want to ensure electricity networks are used efficiently and flexibly, reflecting users' needs and allowing consumers to benefit from new technologies and services while avoiding unnecessary costs on energy bills in general.

Why have we decided to launch an SCR?

We believe an SCR is the best tool available for us to manage successfully the complex and interrelated questions which may need changes across multiple industry codes to deliver this objective. There was considerable support for this from stakeholders.

Guiding principles:

- Arrangements support efficient use and development of network capacity
- They reflect the needs of consumers as appropriate for an essential service
- Any changes are practical and proportionate

What are access arrangements and forward looking arrangements?

Our Electricity Network Access project is seeking to reform electricity network access and forward-looking charge arrangements –

Access arrangements – the nature of users' access to the electricity networks (for example, when users can import/export electricity and how much) and how these rights are allocated.

Forward-looking charges – the type of ongoing electricity network charges which signal to users how their actions can ether increase or decrease network costs in the future.

This is different to the **residual element** of network charges that are 'top up' charges set to ensure that the network companies' allowed revenue can be recovered, after other charges have been levied. The residual charges are being reviewed as part of our Targeted Charging Review.

The case for change

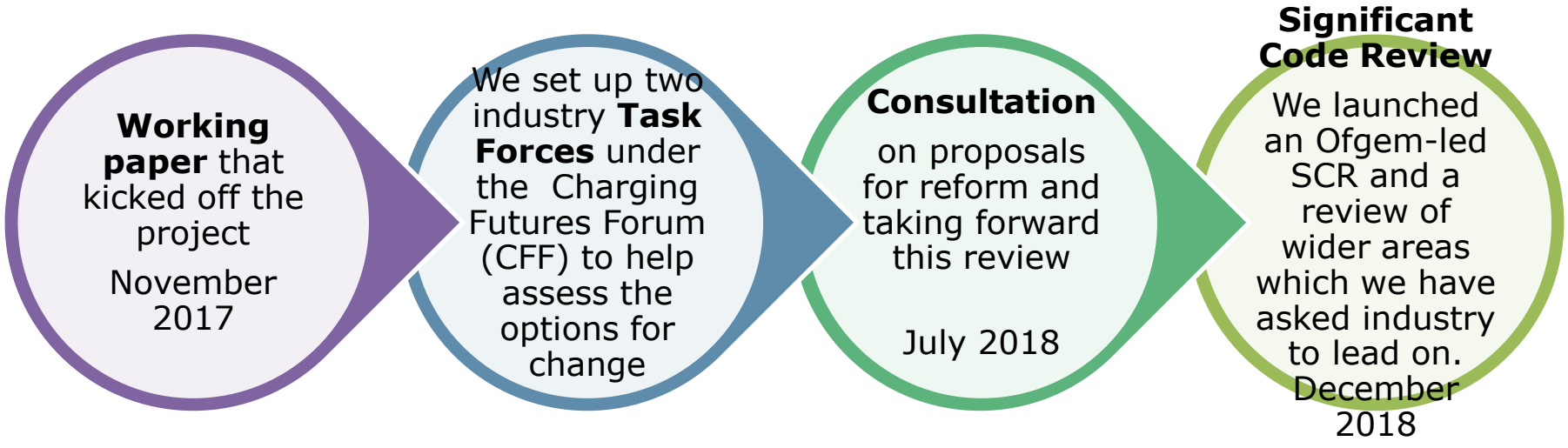
Context: The energy system is changing (eg growth of electric vehicles, distributed generation and battery storage). These changes could create challenges and opportunities for our electricity networks.

The case for change

Increasing **constraints** caused by both **generation and demand at distribution** level, yet also increasing **opportunity** to mitigate these though **flexibility** (eg Imperial College suggests potential **savings of up to £4-15bn cumulatively to 2050** from reducing electricity network reinforcement).

Substantially **different approach across transmission/distribution** and **generation/demand boundaries** means increasing risk of **distorting investment and operational decisions**

The work so far



The scope of our review

Included in the SCR – Ofgem-led

- Review of the definition and choice of transmission and distribution access rights
- Wide-ranging review of Distribution Use of System (DUoS) network charges
- Review of distribution connection charging boundary
- Focussed review of Transmission Network Use of System (TNUoS) charges

Areas led by industry outside the SCR

- Review of balancing services charges (BSUoS)
- Access right allocation

Excluded from the SCR and wider industry review

- Introducing fixed duration long-term access rights
- Introducing geographically exclusive local access rights which do not allow access to the rest of the system
- Wider changes to transmission network charges
- The transmission connection charging boundary

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Potential access and forward-looking charging options

We are exploring a range of potential access and charging options in the SCR.

We are also considering appropriate protection options which may need to apply for small users, particularly the vulnerable.

ACCESS REFORM

Better definition and choice of access rights: Could offer an enhanced choice of access options, eg non-firm and time-profiled access, with locational elements.

Minimum firm access limit for small users: could provide protections for a basic level of usage to ensure access was appropriate for small users' needs.

CHARGING SIGNALS

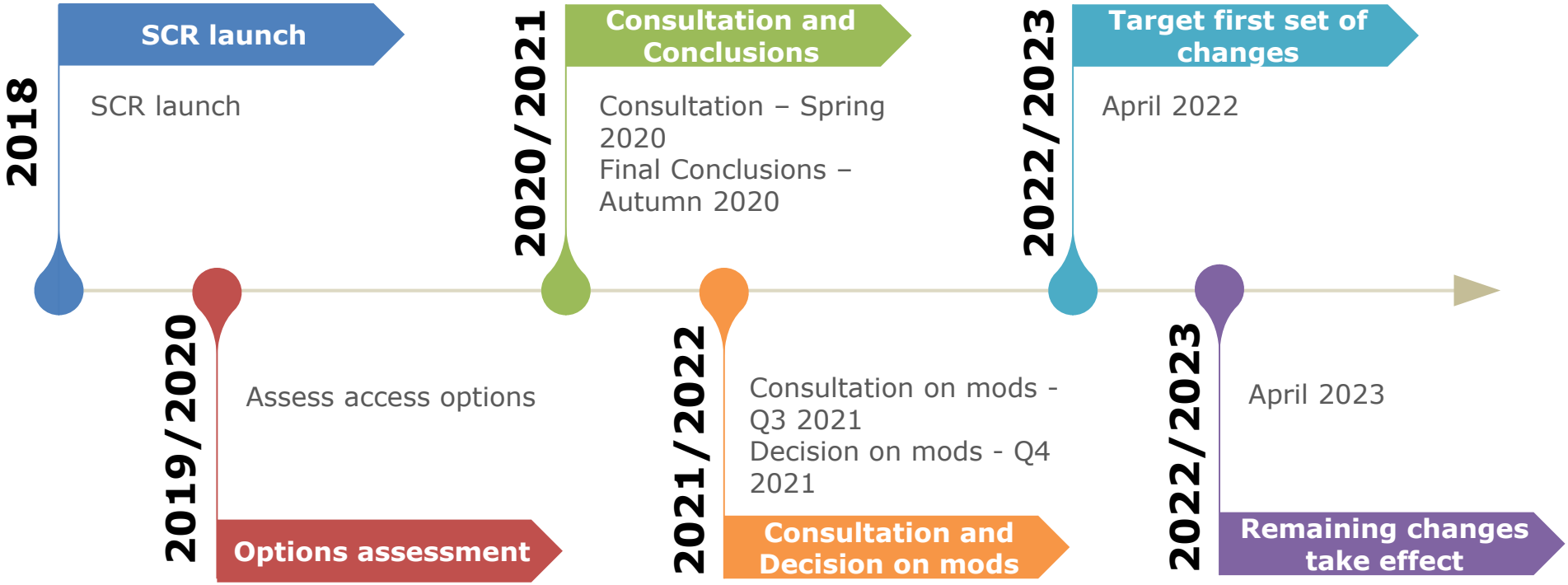
Wide-ranging review of DUoS charges: could increase the granularity of charging signals, involve choices of more capacity-based or time-varying charges, which could vary by location

Basic charging tier: could involve a basic level of protection from sharper temporal or, particularly, locational charging signals for small users.

We are considering these options alongside the role for principle-based protections in protecting consumers

Indicative timeline

We are reviewing the charging framework holistically; working closely with the Targeted Charging Review and RIIO project teams to ensure a consistent approach is taken to the different reforms underway across the energy system.



Consumer impact issues: our Call for Evidence

Aim

- How will consumers react?
  - Load shifting and flexibility -> informs economic case
  - Network charging options
  - Distributional impact
  - Framework for protection and engagement

- Views and evidence sought on:
  - Consumer ability and/or willingness to engage with their electricity usage
  - Consumer ability to load shift/offer flexibility
  - Consumer access to, and ability/willingness to, adopt innovative technology to offer flexibility
  - Consumer ability to understand and choose a suitable tariff for them from potential new offerings in the market including those associated with offering flexibility/innovative technology
- Exploring these themes later today through consumer scenarios

- All consumers will share in system-wide benefits

Domestic Consumers

Consumer engagement with energy use

- Modifying consumption pattern in response to signal
- Direct engagement – eg choosing to use appliances off-peak or using a timer
- Indirect – allowing a 3rd party (eg an aggregator) to modify their consumption
- What encourages and helps consumers to engage in this way?
- How do they become more confident?

Domestic Consumers

Consumer load shifting/offering flexibility

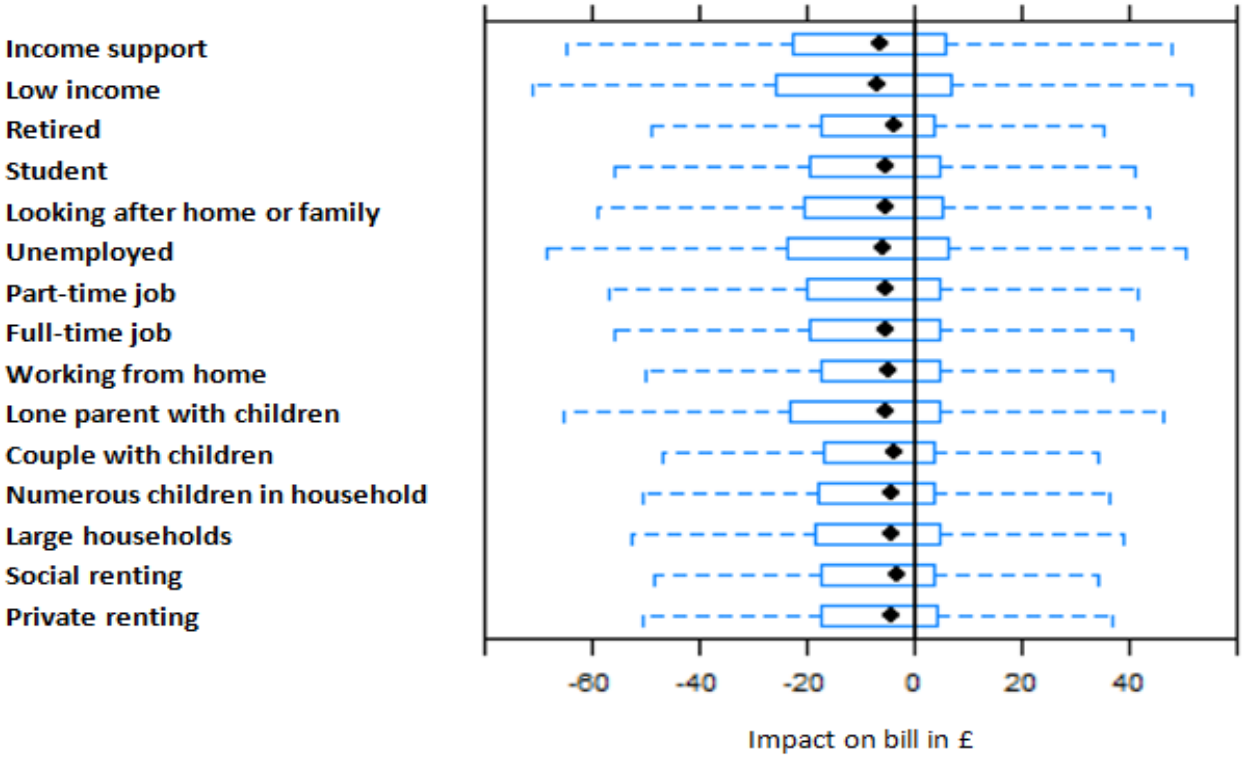
- Can we estimate number of consumers and volume of load?

- Enablers and barriers: helping consumers to be rewarded for flexibility
- Can indirect approaches help?
- New routes from potential access options or charging signals?

- Variation for different groups of consumers – willingness, circumstances, vulnerability
- Distributional impacts

Impacts on Vulnerable Groups

Impact on bill in £ across sociodemographic characteristics associated with vulnerability



All characteristic groups save on average. But there is considerable spread within group and very limited difference between groups

Ofgem-commissioned CEPA study - distributional impacts of Time of Use (ToU) tariffs (July 2017)

All Modelled Scenarios: Bill Impacts

Tariff	Static/Dynamic	No behaviour	Behaviour		
Reference Tariff		Average Net Impact on Bill			Interquartile Range
	Static	£0	-£8	-1.3%	-£25/+£12
	Dynamic	£0	-£7	-1.1%	-£9/-£5
Higher Price Incentive					
	Static	£0	-£12	-2%	-£35/+£12
	Dynamic	£0	-£11	-1.8%	-£14/-£9
More Frequent Price Signals					
	Static	£0	-£9	-1.5%	-£29/+£12
	Dynamic	£0	-£22	-3.6%	-£16/-£12
Smart Appliance (pricing and schedule same as reference)					
	Static	£0	-£17	-2.8%	-£34/+£2
	Dynamic	£0	-£10	-1.6%	-£11/-£8
Battery Storage (pricing & schedule same as reference)					
	Static	£0	-£96	-15.6%	-£111/-£78
	Dynamic	£0	-£32	-5.2%	-£32/-£31

Savings are lower for the dynamic trial as there are less periods of peak pricing

Higher peak price but less peak price periods

Same prices as reference scenario but increase in frequency of peak/low prices

Domestic consumers

Consumer adoption of innovative technology

- Tech solutions may help consumers offer flexibility
- Short and long term options (smart plug vs battery)
- Potential for community-based solutions?

Choice of tariff

- Likely consumer preferences
- Likely market offerings
- How will consumers get information and advice?
- Risks and protections: Principles-based framework. Is anything more needed?

Small non-domestic Consumers

- Answers will vary with sector and company size

- What is potential for load shifting, and what factors make a difference?
- Businesses can be wary – varying usage times could impact business
- Might not be core concern for business

- How to engage and build confidence?
- Who is best placed to help?

Small non-domestic Consumers

- Investment in tech – can depend on landlord; portable solutions might be more accessible
- Tech could help provide flexibility and savings without having to change usage pattern

- What new tariffs will different types of business want?
- What might the market offer?
- New tariffs could incorporate network access options or charging signals
- How can businesses be supported in finding and accessing the right tariff for them?

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Our core purpose is to ensure that all consumers can get good value and service from the energy market. In support of this we favour market solutions where pratical, incentive regulation for monopolies and an approach that seeks to enable innovation and beneficial change whilst protecting consumers.

We will ensure that Ofgem will operate as an efficient organisation, driven by skilled and empowered staff, that will act quickly, predictably and effectively in the consumer interest, based on independent and transparent insight into consumers' experiences and the operation of energy systems and markets.

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