Sustainability First

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Dear Ofgem

Ofgem Call for Evidence on the Consumer Impacts of Half-Hourly Settlement

Sustainability First is a think tank and charity that works in the energy, water and waste sectors. We have significant experience of consumer and public interest issues, regulation and the demand side (see www.sustainabilityfirst.org.uk).

We have set out below some over-arching comments about the need for Ofgem and BEIS to take a **more strategic view of the cumulative distributional impacts of Half Hourly Settlement, and other relevant reforms that are currently being discussed, on consumers**. In doing so, we consider that a meaningful public debate is needed as to how we pay for energy going forward. We also provide as an annex answers to specific questions where we have evidence to contribute from our range of past work and experience.

Comments

As Ofgem is well aware the energy system is currently going through a transition – driven in large part by the need to de-carbonise (both electricity and heat) and also the wider trends of digitalisation and a stronger focus on local energy solutions.

Ofgem has a number of workstreams aimed at changing the underlying regulatory framework to support that transition – with reforms of network charging (the targeted charging review and the access and forward-looking charges review), the RIIO price control process, and settlement reform all impacting on the way the costs of the system will be recovered in future. Further changes are envisaged, supported in part by these reforms, including a fundamental review of the future of the retail market and the introduction of peer-to-peer trading. The smart meter roll-out and potential data access for retailers and third parties (including via Midata) will also shape how these reforms impact the end consumer. The impacts of all these changes need to be looked at in the round.

Sustainability First is generally supportive of the direction of travel as being to provide cost-reflective price signals which will drive innovation and motivate customers to play their part in keeping the overall energy system in balance, leading to a more efficient energy system. We also recognise that a greater proportion of system costs will be fixed going forward, as low marginal cost energy becomes increasingly prevalent.

However, we are concerned to ensure that the critical dual goals of de-carbonisation and maintaining affordability of energy (given it is an essential service) are not jeopardised by the cumulative impact of detailed market reforms and that the distributional impacts are properly understood. As such we wish to highlight the fundamental requirements needed to shape a more strategic approach going forward which are discussed further below:

- the need to look at the full picture, taking account of the cumulative distributional impacts of change;

- the need for a wider public debate on fairness and the principles for cost recovery in this new world;
- the need for clarity on the respective roles of government and Ofgem, in particular on distributional impacts;
- the need for better data to underpin policy making and regulatory oversight in this new data-driven world; and
- the need for radical, strategic thinking from a consumer perspective including how the cumulative impact of the changes in input charges will ultimately be reflected in end-tariffs for customers.

The need to look at the full picture, taking account of the cumulative distributional impacts of change

Ofgem produced two helpful overview documents in late 2016 and 2017. The first, on 'regulatory stances' sets out the five key principles that under-pin Ofgem's work to deliver strategic outcomes for consumers[1]. In relation to consumers in vulnerable circumstances this set out that "*cost to serve is not the same for all groups of consumers, but the cost of energy should not be disproportionately more for consumers in vulnerable situations*". The second, on Ofgem's 'regulatory strategy' indicated how the different elements of its smart systems work programme fitted together[2]. What this latter document did not do however was to look at the cumulative impacts of these detailed and fundamental electricity market reforms from the consumer perspective (beyond noting the move to principles-based regulation) and in particular it did not address the distributional impacts.

Since then Ofgem have consulted separately on:

- proposals for the Targeted Charging Review (addressing a specific element of network charges – the 'residual' element). This raises significant distributional issues- with low-income low electricity users and Economy 7 customers at greatest risk of detriment as highlighted by Grid Edge Policy[3];
- initial thinking on the reform of network access and forward-looking network charges (covering other elements of those same network charges); and
- the consumer impacts – including explicitly the distributional impacts - of half-hourly settlement.

To understand the scale of the distributional impacts it is vital that Ofgem looks across these different strands of work. It is not meaningful to ask about the impacts of a move to half-hourly settlement in isolation given that the impacts will depend on how network charges are structured and how capacity market costs are recovered – all currently open issues.

Furthermore, to understand the scale of the distributional impacts for end-customers it is vital that Ofgem looks strategically, beyond these detailed and technical work programmes on electricity network charges, to consider potential implications of new business models and the future of energy supply, including potential pathways to energy tariffs beyond the current price-cap.

As a part of looking at the full picture there is a need to think also about gas and heating. As highlighted by the Committee on Climate Change[4] one of the short-term priorities for heat de-carbonisation is to "tackle the current balance of tax and regulatory costs across fuels, which

[1] https://www.ofgem.gov.uk/publications-and-updates/ofgems-regulatory-stances
[2] https://www.ofgem.gov.uk/publications-and-updates/our-strategy-regulating-future-energy-system
[3] Understanding the Impacts of Ofgem's Targeted Charging Review - here
[4] https://www.theccc.org.uk/wp-content/uploads/2019/02/UK-housing-Fit-for-the-future-CCC-2019.pdf

currently weaken the private economic case for electrification". Ofgem's proposal for a separate higher standing charge for Economy 7 customers in the Targeted Charging Review is an example of such a distortion in the price signals across sectors.

The need for a wider public debate on fairness and the principles for cost recovery in this new world

In the Targeted Charging Review (and its early papers on the forward-looking cost reforms) Ofgem set out a set of principles (worded slightly differently in each case) that would guide its thinking. These were in effect:

- cost reflectivity (and the need to avoid harmful distortions);
- fairness (originally expressed as being in particular about vulnerable customers but then extended to cover other factors such as simplicity and also the "no free rider" principle as articulated by Greg Clarke); and
- practicality.

These broad themes are common across jurisdictions as principles for charging[5] but precisely what gets included under different headings can vary and in some cases regulators will use charging structures to help support broader policy goals such as energy efficiency, which Ofgem have chosen not to do but we would argue should be considered given the challenges in engaging consumers and encouraging behaviour change as essential elements of the transition.

While these principles are helpful, where the real challenge lies is in how to trade-off between them which in part is a matter of judgment and values and in part depends on the specific case in hand (eg the extent to which cost reflective tariffs will actually drive behaviour change is a factor in how one would weigh that against fairness).

The other challenge for an economic regulator is how best to think about 'fairness' which is essentially a socio-political concept not an economic one. It is for this reason that regulators have generally stayed away from distributional issues – but what Ofgem are having to do here, as they re-invent the regulatory framework through fundamental reform, inevitably takes them into that space as their reforms have significant impacts that they cannot ignore.

To help them navigate the issue for the Targeted Charging Review, Ofgem reviewed the academic literature on 'fairness' and also sought input from their academic panel. This helped Ofgem articulate different approaches to fairness as being about equality (everyone pays the same); equity (people pay broadly in line with what they use); or ability to pay (people pay based on what they can afford). There are also questions around fairness of process and how transparent it is.

Ofgem also carried out some consumer research on the balance between equality and equity which concluded that consumers found the concepts hard to grasp and generally voted for whichever they thought would benefit them personally.

These are big issues – too big to relegate to the annex of a highly technical consultation. They merit a much deeper and more open debate than is possible via the Targeted Charging Review - on which consumer organisations with limited resources have had only limited ability to engage.

While the issues raised by time of use tariffs are slightly different – and initial analysis suggests there may not be the same pattern of low income customers being disadvantaged as there is on the

[5] https://www.renewableenergy.ox.ac.uk/wp-content/uploads/sites/4/2018/09/oxford-network-charging-190818.pdf

Targeted Charging Review – there will still be winners and losers. As Grid Edge Policy highlight the impacts at an individual level can still be quite significant and those on low incomes will find it harder to absorb any increases. Again this prompts wider questions about the balance between cost reflectivity and affordability / fairness.

There is therefore a need for a far more strategic, deeper and richer debate about how we should pay for our energy system going forward and what is 'fair'. This also includes issues of inter-generational fairness which Ofgem has no current framework for addressing but which comes up in the context of the RIIO consultation both through some of the detailed financing changes but also in relation to the big question of potential stranding of the gas network (and what that means for assumptions about asset lives, for example).

These are deeply technical questions but this should not preclude Ofgem working to try to bring in a consumer perspective through use of deliberative techniques such as citizens juries where significant time is taken with the people involved to take them through all the issues and arguments and where they are specifically invited to consider things from a citizen (rather than personal) perspective.

The alternative is for government, democratically elected, to take a stronger, strategic lead on the distributional impacts arising from the re-balancing of network charges and wider reforms.

Sustainability First's current Fair for the Future Project is exploring changing expectations around fairness, from a socio-political, environmental *and* economic standpoint. Our strawman 'Sustainable Licence to Operate'[6] for the energy and water sectors has proposed a 'typology' of fairness which we are now testing with key stakeholders. Part of our hypothesis is that as fairness frequently involves balancing different interests, and questions of value judgement, it is essential that there is a step change in how stakeholders are engaged in deliberations as to what is fair – in a way that is meaningful to them. This aspect of the project may be of help to Ofgem as it frames and develops its strategic approach to fairness issues.

The need for clarity on the respective roles of government and Ofgem around distributional issues

Historically major distributional issues around energy charging – and the potential rebalancing of charges - have been seen as being for government.

Going back to the early days of privatisation the principle was established whereby all customers in a DNO area would be charged the same for network usage regardless of the additional costs of reaching remote areas, for example. It was government that led on the introduction of a subsidy for customers in the North of Scotland and government that put in place the Warm Home Discount social tariff (all be it building on a voluntary scheme that Ofgem had overseen).

That approach worked when the decisions taken by the regulator affected all customers equally (give or take). However where we stand now is that the decisions being taken by Ofgem on fundamental reform of network charges will have very significant distributional impacts and create winners and losers across the board.

One solution would be for the adverse effects of the changes on customers in vulnerable situations / low income customers to be mitigated by changes to the Warm Home Discount. But this leads to questions around where responsibility lies.

[6] https://www.sustainabilityfirst.org.uk/images/publications/fair_for_the_future/24071_F4TF_Fair_STRAWMAN_v8a_WEB_MID-SIZE1.pdf (see pages 32-33)

Ofgem may argue that decisions to provide support for customers in vulnerable situations through social tariffs is a role for government not the regulator (and indeed questions around who should get such tariffs is indeed more appropriate for elected government). In its regulatory stances document, referred to above, it makes clear that "government lead on those matters primarily oriented towards substantial cost redistribution". While it says that it would "consider potential interventions and permit industry cross-subsidy where there is evidence that consumers in vulnerable circumstances are disproportionately affected" it sets the bar high for so doing.

However, at the same time, government seem to argue that network charging reform is a technical matter for the regulator, implicitly distancing itself from any strategic need to address unintended consequences and distributional ramifications.

As with the wider smart systems programme, the answer is for Ofgem and government to work more closely together on this aspect of the transition. It would seem right for government to 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'.

Government ought anyway to be thinking about these issues as they look at how best to reform the way that policy costs are recovered to deliver on Greg Clark's 'no free riders' principle and also the challenge from the Committee on Climate Change about how the recovery of policy costs through electricity bills currently distorts the incentives around heat decarbonisation.

Yet again this points to the need for these issues to be considered in the round and for a broader debate on the merits of different models.

Sustainability First's recent report on future utilities regulation[7] concludes that a road map to 2030 is needed which sets out **how utilities regulation is aligned with metrics and targets from relevant government plans** (clearly including the forthcoming Energy White Paper but also the Industrial Strategy, UK delivery of the UN Sustainable Development Goals etc) **along with the advice of bodies such as the Committee on Climate Change and the National Infrastructure Commission**. The report sets out some criteria against which some of the more radical regulatory models that are being proposed by others may be assessed. These criteria build on Greg Clarks' four principles - but are more firmly people focused - and may be helpful when thinking about future government and regulatory roles in this area.

The need for better data to underpin policy making and regulatory oversight in this new data-driven world

The other challenge that emerges as one looks to explore the distributional impacts of these different policies is the paucity of data that exists for policy makers (and stakeholders) to use.

Sustainability First and the Centre for Sustainable Energy have been exploring the case for smart meter data to be available for public interest purposes (essentially for public policy) through a series of research papers and policy dialogue with a smart meter data Public Interest Advisory Group (PIAG)[8] comprising industry, consumer groups, government and wider stakeholders. Our conclusion is that there are routes that government could take to obtain better data under their existing legislative powers and that they will be 'flying blind' as they look to oversee an increasingly data

[7] Sustainability First, 'Circling the square: Rethinking utilities regulation for a disrupted world' March 2019
[8] https://www.smartenergydatapiag.org.uk/

driven sector if they do not do so - and in effect be stuck using 'yesterday's' evidence base and regulatory approach.

Ofgem recently published a blog[9] on big data and the importance it attaches to having the data it needs and managing it intelligently. But currently there is no good dataset that will allow policy makers (or those looking to engage in the debate) to properly understand the distributional impacts of a move to half-hourly settlement. Ofgem should study the PIAG conclusions closely when it considers how it will assess and monitor the impacts of half-hourly settlement.

The need for radical, strategic thinking - but from a consumer perspective

Recognising the fundamental changes that are taking place in the energy system there is a need for a radical rethink around how we pay for the costs of our energy. There are different approaches that have been floated over the years but dismissed as too big a shift. While practicality is important, if there is a time for a radical, strategic review of what the transition means for customers in terms of how energy system costs should be recovered, that time is now.

This means thinking about how fixed costs should be recovered and how far cost reflectivity should be pursued – but also how far these underlying cost signals should be permitted / required to translate into end consumer tariffs. This also has implications for where energy as a service models come in, the lifting of the price cap and the future retail market.

What is needed is to have a proper public debate on how we should pay for energy going forward and to bring the consumer and citizen voice into the process (as Ofgem is committed to doing for RIIO2). Radical changes are hard and can impact different groups of customers in different ways. But Ofgem's reforms are doing that anyway under the guise of a technocratic exercise.

On recovery of fixed costs the sorts of more radical options that should be considered include:

- Taxation (as applies now for RHI);
- Linking fixed network charges to council tax bands (akin to the arrangement in water for non-metered usage);
- A universal service charge with exemptions for low income / customers in vulnerable situations (or indeed for particular business models);
- Fixed charges which create an entitlement to an essential level of energy at a reduced rate;
- Capacity charges (as exist in several European countries); and
- Existing unit rate charges but with a fixed charge for the right to export (ie tackling the issue of "no free riders" in a targeted way).

Ofgem have explored some of these models within the narrow and industry focussed confines of the Targeted Charging Review consultation but there is a need for a wider debate.

Similarly, as part of a move to half-hourly settlement different structures being contemplated for the forward-looking charges can be more or less consumer-friendly. For example, ex post capacity charges (as happens now with Triad) would be hard for smaller customers to anticipate.

Of course, from a consumer perspective what matters is the form of the supplier tariff which may reflect the underlying network charge structure to a greater or lesser degree. Ultimately, in a competitive market, one would expect the structure of charges to broadly reflect the underlying cost structure but the energy market is still far from a fully competitive market. The extent to which

[9] https://www.ofgem.gov.uk/news-blog/our-blog/using-big-data-empower-energy-consumers

tariffs will reflect underlying costs will in turn depend on what happens with the price cap and any restrictions Ofgem may impose – as well as consumer / citizen acceptability and market forces.

Thought is therefore needed on whether any element of structure for recovering fixed costs should be mandated in relation to the way retail tariffs are set. If the guiding principle for recovery of fixed costs is one of "fairness" then the structure of network charges should arguably be required to flow through into the end tariffs. In some of its early RMR proposals Ofgem had proposed mandating the standing charge allowing a readier comparison of the other elements of charges. Being clear how different structures may or may not facilitate the lifting of the price cap should be a relevant consideration.

Equally in setting the retail price cap, the standing charge Ofgem ultimately set was lower than what it considered a cost-reflective rate (with the difference feeding into unit rates) because it was rightly concerned about the impacts for customers in vulnerable situations and reflecting what suppliers had been doing in the market. It would seem slightly odd to further increase the standing charge element of network charges if Ofgem were then to consider that should not be passed on to end customers.

On time of use tariffs Citizens Advice have advocated discounts for load shifting rather than, for example, dynamic peak prices which could see consumers very exposed to spikes in wholesale prices. This makes sense but with a central question over how far Ofgem wants to mandate or preclude particular tariff structures. Ensuring that the 'treating customers fairly' principle clearly applies to the design of these more innovative tariffs might be one way of mitigating the impacts without unduly restricting innovation.

Aside from consumer protection, the question of whether there is a case for mandating a shift to particular tariff structures may depend on the pace of change that is needed to deliver on de-carbonisation goals. While Ofgem have consistently ruled out forcing customers onto time of use tariffs (in part for a fear of a backlash against smart meters as has been seen elsewhere) with the debate now opening up on the potential for a move to 'net zero' there may be a need for more radical action sooner.

Finally, from a consumer perspective there is a parallel debate happening on the scope for selling energy as a service which is particularly relevant in the context of heat de-carbonisation. In such a model consumers would not be taking decisions on their energy consumption per se but may be choosing between different levels of thermal comfort (which may include the system making trade-offs between gas and electricity usage with a hybrid heat pump). How the various changes being considered above would play out in relation to such tariffs again needs thought.

Bringing all these strands together, and in considering what the 'no free rider' principle might mean in practice, as well as what fair approaches to energy tariffs beyond the price-cap might look like, requires a strategic and meaningful public debate.

Yours faithfully

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Director

Sustainability First

Responses to specific questions

Question 2.6: Barriers to load shifting

The report by Sustainability First and Frontier Economics on the Potential Role for the Demand Side in GB[10] set out the different sorts of load and the ability to flex them. While it did not specifically look at the different barriers for different groups of customers it provides some insights into potential barriers that will apply to greater or lesser extents to these groups.

We would not support the idea of trying to define a level of consumption that consumers would consider "essential" and where energy cannot be reduced below that level. Provided customers are clear what the options are – and the requirement to treat customers fairly applies and is effectively monitored – this should provide protection without hampering innovation.

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

The report by Jon Bird for Sustainability First on Cost-Reflectivity and Socialisation in electricity prices[11] brings together some of the evidence around distributional impacts from the studies that are listed in the Call for Evidence. This supports the view that while there are no clear patterns by socio-demographic group there can be significant variations at an individual level.

Ofgem needs to develop a clearer understanding of the winners and losers based on the cumulative impact of all the reforms it is looking at. While there may be winners and losers in all socio-demographic groups it should be remembered that those individuals who are already struggling to pay their bills will find a significant increase harder to absorb. Understanding the range of impacts is as important as understanding the averages (there being no such thing as an 'average' consumer).

While the paucity of data makes it hard to quantify these impacts we recognise that there may well be benefits for some vulnerable customers (eg with "turn-up" tariffs for customers at home during the day who have more flexibility) as well as downsides. More work is needed to understand what determines current usage patterns (eg using the "diary" type of exercise carried out by the University of Reading) to get under the skin of these issues.

On half-hourly settlement explicitly, Ofgem relies in its distributional impacts analysis on the fact that customers cannot be forced to take a time of use tariff and continues to argue in the Call for Evidence that "everyone will benefit" from the system savings. In practice those engaging would be expected to get the benefits (as cost reflective charges mean the customer sees the benefits of changes they make that reduce system costs) and those who benefit without behaviour change (through having flatter profiles already) will opt in leaving others to bear a higher share of the overall costs.

Suppliers and intermediaries will be on the look out for profitable customers and to discourage those customers who would impose an additional cost burden. While suppliers may be precluded by

[10] https://sustainabilityfirst.org.uk/images/publications/other/Frontier%20Economics%20-%20LCP%20-%20Sustainability%20First%20-%20Paper%20for%20DECC%20-%20Future%20Potential%20for%20DSR%20in%20GB%20-%20FINAL%20-%2015%20October%202015.pdf

[11] https://sustainabilityfirst.org.uk/images/publications/other/Sustainability_First_-_Discussion_Paper_by_Jon_Bird_-_Smarter_fairer__Cost-reflectivity_and_socialisation_in_domestic_electricity_prices_-_FINAL.pdf

the terms of their licence from refusing to supply a customer there are many ways, such as targeted marketing (which becomes easier and more accurate in a data rich world), that could be used to cherry pick profitable customers and any steps taken by suppliers to discourage costly customers from taking up their service would be hard to detect.

A broader public debate is needed on how best to deal with these issues. A targeted version of the Warm Homes Discount is one way of dealing with the impacts or an exemption from certain categories of cost. What is key is for government and Ofgem to be clear where responsibility sits for addressing distributional impacts.

Question 2.9: Barriers to use of technology for vulnerable customers

The obvious barrier for low income customers will be cost but for other categories of customers in vulnerable situations there will also be issues of capability, confidence to deal with technology and various practical issues.

Sustainability First's Project Inspire[12] looked at how technology could be used to support customers in vulnerable circumstances but also looked at some of the emerging technology issues around smart metering and smart appliances.

Recommendations included ensuring that innovation funding included an element aimed at supporting customers in vulnerable situations.

Question 2.11: Types of flexible tariffs and offers

The call for evidence lists a range of different tariff structures that may emerge. While this is a helpful framework it is worth being clear that suppliers will be looking for structures that appeal to customers, not simply mirroring costs. The British Gas free weekend energy offer was evidently not strictly cost reflective but was eye-catching. The "sunshine tariff" in WPD's area which was offered to try to encourage demand turn-up is another example.

How far tariffs are likely to vary at a more granular locational level will depend on the outcome of Ofgem's access and forward-looking charges review. Certainly, the network cost signals for the distribution network do need to reflect the very local circumstances but it may be that this is more effectively done through a contract for local ancillary services rather than trying to reflect them in network charges where the signal may or may not be passed on.

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

A principles-based approach would seem to make sense as a way of providing the flexibility to accommodate innovations in tariffs. It is vital that the principles-based regulations do cover tariff structures and that it is clear that suppliers need to think about a wide range of factors in the way they structure and market these tariffs including:

- the nature of the tariffs (if they are capped or leave customers taking the risk on price spikes; the amount of notice given on dynamic tariffs and how customers are informed; any restrictions on interruptions / load limiting);

[12] https://sustainabilityfirst.org.uk/inspire

- facilitating informed choice (aiding comparability for example by having some basic time of use tariff structures that are common across suppliers; avoiding over-simplification eg not placing undue reliance on typical consumption values in communications; steps that need to be taken when advising on suitability and the extent of data history to support that – including the role of switching sites; how savings should be presented as being both with and without behaviour change);

- accessibility of benefits by all customers (whether pre-payment customers can access the full range of tariffs; ensuring that disengaged customers who would benefit from a time of use tariff are offered one).

Carrying out a review of the approaches currently taken to Economy 7 / 10 and how suppliers comply with the principle of treating customers fairly in that part of the market might yield some valuable lessons that would have wider applicability going forwards.