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Dear Maureen and team

Ofgem's Impact Assessment Guidance (including distributional impacts)

Sustainability First is an independent think tank and charity focused on promoting economic, social and environmental wellbeing in public utilities.

We appreciate the opportunity to comment on Ofgem's Impact Assessment (IA) Guidance published in May this year. We are aware that no deadline was given for responses and therefore hope that these comments are still of value. In particular this has allowed us also to see how the Guidance was applied in practice in the IA for the RIIO2 Draft Determinations.

We are very pleased that Ofgem has set out how it intends to look at distributional impacts going forward – addressing an issue that Sustainability First has raised on a number of occasions, including in our "What is Fair?" discussion paper last year. We are also pleased to see the strong emphasis now being placed on de-carbonisation in Ofgem's impact assessments, including consideration of the impacts of other greenhouse gases and the reference to taking account of the Committee on Climate Change's 6th Carbon Budget. By strategically aligning this work with that being done by others working on net zero and delivering a 'just transition,' Ofgem can do more to maximise its effectiveness.

While there are a number of positive features in Ofgem's proposed approach to impact assessment (including also the discussion around hard to monetise benefits) we do have a number of concerns that we have summarised below, with a more detailed explanation and recommendations on the approach to distributional impacts set out in the attached annex and the supporting technical paper by Grid Edge Policy. We very much hope that Ofgem will see this is as the beginning of a journey to better understand the impacts of its policies on the environment and on different groups of customers and in particular those in vulnerable situations. Sustainability First has taken a strong interest in these issues over a number of years and we hope that our expert input will be of value to Ofgem as it looks to develop its thinking further.

At a roundtable that we hosted recently to discuss our paper on the Social and Distributional Impacts of the energy transition and climate adaptation, a number of strategic themes were discussed which bear on policy evaluation but are not reflected in Ofgem's Guidance:

- It is important to recognise the **dynamic** nature of the decisions that need to be taken – the analytical approach proposed by Ofgem feels quite static despite the references elsewhere to adaptive regulation. This dynamic view needs to take account not just of the energy transition but climate adaptation, technology developments and economic uncertainty created by Covid-19, for example.

- The choice of **counterfactual** in assessing policies is another difficult issue which is not addressed in the Guidance – it is unlikely to be "do nothing" given the net zero imperative.
- The whole question of **inter-generational equity** is an important aspect that is acknowledged in the Guidance as being a challenge. We agree that this is a difficult area and one that needs more thought. The choice of discount rate and the sequencing of decisions over time are important technical elements but there is also a deeper philosophical question about the appropriate balance in terms of the responsibility as between current and future consumers to pay for action to address climate change.
- The **spatial dimension** is also important and points to the need to understand the impacts in different geographies, highlighting also the need to engage local communities to inform decisions. This is vital to ensure the sustainability, and legitimacy, of future approaches and is a theme that came out strongly in the over 1,200 entries to our recent art and essay competitions on 'How do we build from the corona crisis towards a sustainable future?'. As the pandemic's impacts on different localities and cities increases, this issue may well grow in importance.
- The Guidance refers to looking at the **cumulative impacts** of policy decisions, as we have previously advocated, but with no sense of how this would be done in practice.

These are not easy issues to address but would merit exploration, for example through informal discussion papers. We would of course be happy to work with Ofgem to develop thinking in these areas if that would be helpful.

Turning then to the more detailed comments that we have around Ofgem's methodology for assessing distributional impacts our main concerns, as set out in the attached annex, are as follows:

- During our recent roundtable and regularly in other Sustainability First work we have stressed the importance of **procedural fairness** and the need to bring the citizen / consumer voice into decisions around fairness, including through deliberative engagement. One of our particular concerns around the distributional analysis done for the Targeted Charging Review (TCR) and for half-hourly settlement was that the analysis was buried in technical annexes in a form that was inaccessible to consumer and environmental groups with limited resources. While this latest Ofgem Guidance is clearly intended to try to address that concern, the methodology adopted remains complex and hard to follow. Presenting the impacts (and underlying assumptions) clearly is essential to facilitating an open and informed debate on the issues.
- Allied to this there is a danger with a complex methodology like this that even within Ofgem it becomes a **black box process** and fails to provide insights to help policy makers think through the impacts of their decisions. This can then make the task of explaining Ofgem's decisions and judgements more challenging.
- Moreover, by choosing to rely on one particular dataset (which is not actually the dataset that Ofgem uses for its Typical Domestic Consumption Values [TDCV] which underpins several licence requirements) Ofgem is missing out on the opportunity to **triangulate** and gain insights from comparing different data sources. The analysis that Ofgem has done paints a very different picture of the link between income and energy consumption than previous work which merits exploration. The approach taken also leaves a serious gap in terms of Ofgem's ability to understand the position of consumers with **electrically heated homes**.
- Ofgem's methodology looks solely at the impacts on different groups of domestic customers. It does not engage with the question around how the impacts vary as between

domestic and **non-domestic customers**. In the TCR the balance of cost allocation between business and domestic customers was a key issue. This therefore needs to be brought out in any distributional impact assessment.

- There is also a question which is not addressed in the Guidance as to how Ofgem will take account of the results of its distributional impacts assessment in any decision it takes (beyond ensuring that there are no disproportionate effects) and where responsibility lies between it and BEIS for any mitigating action that is needed. This point about **role clarity** was made in our What is Fair? paper and was picked up by the NIC in their review of regulation[1]. The establishment of the Net Zero Advisory Group is welcome but it remains unclear how it will fulfil its remit on the basis of the two meetings a year proposed in the terms of reference and what evidence it will use as the basis for its advice. As cross-subsidies reach their limits, the need for more fundamental tax and welfare reform will grow. And as we develop new approaches to the changing affordability challenge, as outlined in our recent Consumer Vulnerability Viewpoint Paper, clarifying responsibilities and getting the relationship 'right' between Ofgem, BEIS and other parts of government will become increasingly important.
- Finally, through our work on PIAG (which Ofgem sponsored the first phase of) we have been exploring the public interest benefits in access to more granular **smart meter data[2]**, including in enabling Ofgem to fulfil its role more effectively. The most recent workshop, which Ofgem presented at, explored the challenges around distributional impacts in some depth and the need for smart meter data linked to rich socio-demographic data to enable this, as set out in the summary report. While the Ofgem Guidance makes clear that when more granular smart meter data becomes available it can be incorporated into the methodology, we believe Ofgem should be proactive in talking to BEIS about how to ensure it is able to access this data going forward.

Aside from these reflections on the Guidance itself we are also interested in how Ofgem sees the Guidance it has produced here for its own policy decisions bearing on the **RIIO process** and in particular the CBAs that the companies have to produce for significant investments. For example, the Ofgem IA Guidance highlights the issue that the cost of carbon has not been updated to take account of the net zero obligation and says that it will therefore carry out sensitivity analysis using higher carbon values. We assume that this is the approach that the network companies should also take.

Another issue that has been debated within the RIIO2 working groups is the approach to **handling uncertainty, the role of scenarios and real options thinking.** Again, we would hope to see some consistency in thinking across Ofgem on these issues but the IA Guidance itself is relatively weak on how Ofgem would deal with uncertainty in its own decision making. There is only a brief reference to the FES scenarios and, while the "resources" annex lists a paper on Real Options, it is not referenced in the Guidance itself leaving its status unclear. We would hope that as thinking develops through the RIIO process this could be reflected in Ofgem's own IA Guidance.

Finally, the network companies are starting to explore **social return on investment** (SROI) as a way of taking account of broader societal benefits of initiatives they undertake. This is not a feature of Ofgem's own IA Guidance but we assume that does not preclude the companies from pursuing such a route and that again there may be an opportunity for cross-fertilisation of ideas. There is also an

[1] https://www.nic.org.uk/publications/strategic-investment-and-public-confidence/
[2] https://www.smartenergydatapiag.org.uk/

opportunity here for Ofgem to engage with the **investment community** who, spurred on by the Task Force for Climate Related Financial Disclosures (TCFD), are increasingly concerned with **ESG (environmental, social and governance) performance and impact investing.** Using investor influence to help change company behaviour and practice at source would seem to us an important goal. Our September Discussion Paper on Sustainability Metrics in Public Utilities covers these points in more detail.

We were pleased to see Ofgem applying its new methodology for looking at distributional impacts in the IA on the RIIO2 Draft Determinations published in July. However, this does reinforce some of the concerns noted above and in the attached annex. The analysis is based on the headline £20 domestic customer bill saving and shows how that will vary by demographic group. Unsurprisingly, given the methodology, there is very little variation in the impact for the key vulnerable groups except once the savings are looked at on an equity weighted basis or as a proportion of income. Moreover, there is no discussion of how the £20 per customer figure is reached or how it depends on the split between business and domestic usage (which may shift if industry demand remains lower post Covid-19). There is also no presentation of the differences between geographic regions and very limited discussion of inter-generational impacts. As such while it is superficially sophisticated the methodology risks getting in the way of thinking through what might be the crucial issues for RIIO2 in terms of distributional impacts.

We would be happy to discuss our more detailed reflections with you and would hope that you would be willing to participate in some sort of virtual roundtable with consumer bodies and others to allow broader discussion of the important issues around distributional impacts in particular and to help improve transparency around the detail of the methodology that Ofgem is now starting to adopt. Sustainability First would be happy to arrange and host such an event if Ofgem would find that helpful.

Yours sincerely

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Cc Maxine Frerk, Associate Sustainability First

Annex: Sustainability First observations on Ofgem's approach to assessing distributional impacts

Choice of dataset and lack of triangulation

The decision to use the ONS Living Costs and Food (LCF) survey in assessments of impacts by income decile and across consumer archetypes has a logic in that it provides a link between energy expenditure and a wide range of socio-demographic variables. However, we were surprised and concerned that there was no discussion of the very different picture that emerges from the BEIS sub-national energy statistics which shows a strong correlation between income and usage which is not evident in the Ofgem LCF-based analysis. The BEIS dataset is much larger in terms of population coverage, includes consumption by income and some other metrics including property type, which is of particular relevance for questions around heating.

In our view, a best practice approach would necessitate looking at the different data sources and triangulating across them in order to **understand why they present different pictures**. The aim should be to build insight and understanding, not simply to come up with a mechanistic tool. The attached paper by Grid Edge Policy sets out some initial thoughts on possible reasons for the differences in the figures between the ONS data and the BEIS data, but we would encourage Ofgem with its greater resources and expertise to look at this more closely and to share its thinking.

The importance of understanding how the figures that Ofgem has taken from the ONS LCF survey differ from the BEIS figures is reinforced by the fact that the core metric that Ofgem has used historically to present the impact of its policies – and which is embedded in a number of licence obligations – is the Typical Domestic Consumption Value (TDCV). The TDCV is derived from the BEIS sub-national energy statistics. While the "average" consumption in the CSE archetypes has reportedly been validated against overall energy consumption from DUKES, the Ofgem TDCV framework also includes a low (lower quartile) and high (upper quartile) consumption figure and allows the range of figures to be similarly tested.

Applying this test, the Grid Edge Policy paper finds that in Ofgem's analysis, all of the 13 CSE archetypes bar one, as well as almost all of the income deciles, have annual electricity consumption estimates that sit within that TDCV inter-quartile range (ie somewhere between the low and high TDCV figures) – despite the fact that (by definition) 50% of the population has consumption that falls outside that range. What this shows is that despite its attempt to move away from looking at the "average" customer, Ofgem has defined the groupings that it looks at in such a way that they still present a **highly averaged picture**. Consequently, Ofgem are still not looking at customers with relatively higher or lower consumption, which is the key to understanding who it is that is impacted most by the sorts of changes to charging structures that Ofgem is increasingly considering.

Equally the use of the mean (which is what we assume Ofgem are using when they say "average") as opposed to the median (used in the TDCV) risks creating a distorted picture by the inclusion of some customers with exceptionally high usage in what is a skewed distribution.

Recommendation: Ofgem should ensure that it understands clearly the relationship between the figures in these latest reports and those in its TDCV analysis. Building on this it should articulate why the decile analysis included in BEIS Official Statistics paints a different picture from that which its model suggests and should satisfy itself that the figures it is using adequately characterise the full range of different consumption patterns

Homes with electric heating

One specific example of this issue is homes that use electric storage heating. As highlighted in a recent report for SSEN,[3] there are around 2.2 million homes with electric heating that are typically low income, often using Economy 7 or other more complex tariffs. With the move to de-carbonise heat, smart electric storage heating should be seen as a flexible solution that is more practical and cost effective for smaller and energy efficient homes. However, the report highlights many Ofgem policy areas that could impact on the viability of electric storage heating and argues that Ofgem needs better data to inform its work in this area.

In the previous 2014 CSE archetypes, there were two archetypes that represented electrically heated homes – one for low-income, electrically heated homes with an average electricity consumption of 6130 kWh and one for all other electrically heated homes with an average consumption of 8912 kWh. In the latest CSE archetypes the picture is more muddied as there are four archetypes each with a mix of oil and electric heating (F10, G11, H12 and H13). Across these four archetypes the one with the highest average electricity consumption (but described as mainly oil heating) is still only at 5750kWh and the one that specifically mentions electric heating has an average of 5250kWh. Moreover, according to the TDCV figures the upper quartile consumption for Profile Class 2 (Economy 7 customers who will typically have electric storage heating) is 7100kWh. Given this range of figures – and without any sense either of the peak-off peak split which is critical for Economy 7 customers – it is hard to see how this framework will help Ofgem understand the impact of its policies on this critical group of customers who are known to be at particular risk of fuel poverty.

Recommendation: Ofgem should carry out a specific research project to better understand the usage profiles of customers using electric heating (building on the earlier Ofgem insight report from 2015) to inform how its policies will affect this key group of consumers.

Business v domestic impacts

While the main motivation for carrying out the distributional impact assessment is to understand the potential impacts on groups of vulnerable customers, there are also important questions around how costs are allocated between domestic and non-domestic customers. In the TCR proposals some of the benefit to domestic customers came from a reallocation of costs between domestic and non-domestic customers, with concerns voiced by business customers who would see their costs rise. Equally with Covid-19 leading to a marked reduction in business usage in the first half of the year concerns have been voiced that much of the shortfall in revenues will have to be picked up by domestic customers.

While there is no case for Ofgem to deliberately rebalance between these sectors (or between groups of non-domestic customers) changes to the structure of network charges are likely to have that effect, in particular given the different profiles of usage between domestic and non-domestic customers.

In presenting its RIIO2 Draft Determination Impact Assessment Ofgem focussed on the £20 projected average bill saving and how that varied across groups of domestic customers. No information was provided on the expected impact on non-domestic customers or what assumptions had been made in allocating the impacts between the two sectors.

[3] Available here.

***Recommendation*:** In presenting the impacts of its policies Ofgem should make clear if there are shifts in the balance of costs or benefits as between domestic and non-domestic customers, including setting out the assumptions underpinning that analysis.

Understanding time of use profiles

Understanding the pattern of electricity usage over the day will become increasingly important as Ofgem looks to understand the impacts of its policies to support flexibility such as the move to market-wide, half-hourly settlement. We are pleased that this point is acknowledged at several points in the document and we are grateful to Ofgem for its participation in the PIAG process (and its funding for Phase 1) which seeks to make the case for policy makers to have access to that data. Given that Ofgem acknowledges the growing importance of such data, we would encourage them to start to think about how best they might get that data going forward through engagement with BEIS and the UCL SERL project.

Moreover, this again highlights the importance of understanding the relationship between the ONS LCF survey data, based on reported expenditure, and the BEIS data, which is based on annual meter reads, given that any future time-of-use data will clearly be based on (smart) meter reads.

Recommendation: Ofgem should plan for how it might best gain access to more granular consumption data.

Qualitative insights

We are pleased that Ofgem has commissioned the updating of the CSE archetypes which was a recommendation from the roundtable that Sustainability First hosted on the impacts of the TCR. In particular we see the pen portraits provided as a way to help Ofgem put themselves in the shoes of different groups of customers to help identify how their policies might affect them in more intangible ways such as through their access to technology or confidence to engage in the market. However, while helpful there is of course still a step to be made from articulating these pen portraits to identifying how these groups will actually be affected by developments in the energy market and by Ofgem's policies.

It is therefore vital that Ofgem continues to build its engagement with consumers and third-party representatives to develop this understanding of customers' lived experience and how vulnerability impacts on their experience of the energy market.

This could also help in building a more dynamic picture of how different groups might be expected to be impacted by future developments. This is difficult but the current analysis includes information on current EV ownership, for example, whereas what is key in anticipating policy impacts is understanding how EV ownership might change over time for different groups.

Recommendation: Ofgem should set out how it plans to bring in more consumer insight to help build on the descriptions provided in the archetypes and how it will keep these insights current to reflect the ongoing consumer lived experience.

Ofgem's role in mitigation

The inclusion of equity weights is a significant and important development in Ofgem's approach to thinking about these issues and, as noted, is in line with Treasury Greenbook analysis. Clearly such a methodology would show a net benefit (on a weighted basis) from re-distributive policies and it would be helpful to be clear how far Ofgem still sees such decisions as being essentially for government. In principle, one goal of carrying out a distributional impact assessment is to see where mitigating action might be needed alongside policy proposals. What is not clear is where responsibility for any mitigating action sits.

Recommendation: Ofgem should work with BEIS to clarify roles in this area as recommended by the National Infrastructure Commission in their review of regulation.

The dangers in a complex black box methodology

The approach that Ofgem is proposing is a complex one involving the derivation of consumption figures from energy spend, equivalisation of incomes and consumption, interpolation to estimate impacts for different consumption levels and the application of equity weights to the net costs / benefits. Given that they are specifically referenced in statute, the methodology looks separately at the effects by income decile for those of pensionable age, those that have a disability or chronic illness and those that live in rural areas. The concern is that with such a complex methodology and detailed break-down of results it will be hard to draw out any clear conclusions on the impacts of particular policy proposals.

The attached Grid Edge Policy paper sets out Maxine Frerk's understanding of the workings of the methodology proposed and where it is unclear. If even a relatively expert observer struggled to understand what is being done then it will be very hard for consumer and environmental groups – and even Ofgem staff themselves – to engage with the analysis. The worry is that this then becomes a tick box exercise – to produce the required set of graphs – rather than to really understand where the risks and impacts lie. Having a standard approach may be helpful but it is essential that it is not seen as a substitute for thinking hard about the groups that will be impacted by particular policies and carrying out bespoke analysis if required.

In large part this complexity comes from Ofgem trying to move beyond simply describing who the winners and losers from a particular policy would be, and to use economic techniques to help in assessing the fairness of differential impacts.

From the analysis set out in the paper it would seem that while there is a clear pattern linking the level of income to energy consumption based on the BEIS data, that pattern is much less clear in Ofgem's analysis. In part this may be because it ignores the effect of low-income customers paying higher prices on average in determining their level of energy consumption but also, more fundamentally, it is caused by the equivalisation of incomes and energy consumption. Because those on low incomes will tend to be smaller households who arguably need less income and use less electricity, the figures are adjusted. This effect of this process is not transparent in the way the subsequent application of equity weights is (with figures shown before and after application of weights). Moreover, the end result is one in which there is apparently very little difference in the absolute bill impacts for different groups and one that creates a misleading impression as to the range of actual bill impacts that customers will experience.

The other area of technical complexity is the methodology used by CSE to identify the archetypes. As noted above in the context of electric heating the range of consumption reflected in the latest archetypes is much narrower than in the 2014 analysis. As set out in the Grid Edge Policy paper this is a result of a change in the statistical technique used and the choices made by Ofgem as to which parameters to prioritise. No real explanation is given for the approach taken which has had a significant impact on the results.

Recommendation: Ofgem should look at how it can better tell the story of both what the actual bill impacts will be on different groups of customers and, separately, the extent to which it views any differences in the impacts between groups as a subject for concern.

Recommendation: Ofgem and CSE should provide a more detailed justification for the methodological changes in the creation of consumer archetypes versus the 2012 and 2014 models. This should include a clear acknowledgment of subjective choices made during the statistical process, as well as acknowledgment of any drawbacks for the chosen clustering approach.