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Summary of stakeholder Responses

Section summary

This annex provides a summary of the responses to our November 2018 consultation on our proposed reforms to residual network charging and the remaining non-locational Embedded Benefits.

Introduction

1.1. We received 137 responses to our November 2018 consultation, of which 19 were confidential. The largest number of responses came from generators, with networks the next most common type of respondent. In June 2019, we published all non-confidential responses on our website. We have today also published responses to our two supplementary consultations.

1.2. Although many consultation responses did not respond directly to all questions, this document contains a summary of those responses under the questions asked in our consultation.

Question 1: Do you agree that residual charges should be levied on final demand only?

1.3. The principle of applying charges to final demand users only was generally well supported, but with a number of caveats. Respondents noted the benefits of such an approach as the pass-through of generation-side residual charges to wholesale and other prices was recognised as potentially distortive, as it influenced behaviour in the wholesale and capacity markets. Some respondents felt moving charges to final demand consumers would avoid distortions, improve the efficiency of the market and could reduce risk premia associated with forecasting residual charges.

1.4. Many felt a clear definition of final demand was needed to avoid unintended consequences or distortions. In particular, respondents requested that energy associated with generation activity should be properly accounted for to avoid charges on generation. Situations where distortions might arise were noted, such as sites with non-final demand and sites on private networks with other users behind a single boundary meter. Many argued that charges should be on a per site, rather than per MPAN or per connection basis, to avoid over-charging.

1.5. A smaller proportion of stakeholders did not support our approach, with some respondents suggesting other options would be simpler for sectors with many sites where identifying final demand would be difficult. Some stakeholders felt that demand-only charging would be unfair in generation-dominant areas, as it would see costs from generation-driven network investment placed on demand users. Such issues could present particular challenges to IDNOs, who do not have allowed revenues. Others felt charging residuals to final demand users might not suit a world where 'prosumers' generate more of our electricity requirements, such as in one of the scenarios we set out in our modelling. Some felt it inconsistent for Ofgem to favour the removal of network residual charges from generation while consulting on the Full Reform changes to balancing services charges that would see the addition of residual-like cost-recovery charges for some generators. Others felt that work was needed to identify forward-looking costs better, and this could bring down the level of residual charges that needed to be recovered.

Question 2: Do you agree with how we have assessed the impacts of the changes we have considered against the principles? If you disagree with our assessment, please provide evidence for your reasoning.

1.6. Stakeholders generally supported our principles and how we used them to support our decision, but in many cases disagreed with the outcome of our assessment or felt that insufficient weight had been given to some areas. These included the impact of the changes on large users operating in an international context, the impact on renewable deployment and community owned generation, and the impact on IDNOs. Some respondents felt there was an over-reliance on RAG (red-amber-green) rating assessments with a lack of clarity over the weightings used.

1.7. Some stakeholders agreed that distortions could mean investment in low-carbon generation and flexibility happens in an inefficient manner, increasing system costs, but others felt existing distortions were not always harmful, particularly where they contributed to greater decentralisation or rollout of renewables.

1.8. The approach to segmentation and its implications for fairness, practicality, and the avoidance of distortions was a topic that many respondents touched on. Segmentation through Line Loss Factor Classes (LLFCs) was widely thought to be inappropriate, particularly for EHV users where data availability was questioned.

1.9. Some respondents felt our assessment had failed to consider in depth the areas of practicality and cost, and particularly the potential for significant changes for the network licensees and suppliers in delivering the preferred options.

1.10. Responses to this question generally focused on the merits of the reforms and are summarised under the relevant question.

Question 3: For each user, residual charges are currently based on the costs of the voltage level of the network to which a user is connected and the higher voltage levels of the network, but not from lower voltage levels below the user's connection. At this stage, we are not proposing changes to this aspect of the current arrangements. Are there other approaches that would better meet our TCR

principles of reducing harmful distortions, fairness and proportionality and practical considerations?

1.11. Most respondents felt that the existing "cascading" approach to charging continued to be appropriate. This is where groups of users pay, broadly speaking, for the parts of the network that they are connected to and those levels above.

1.12. In general, stakeholders agreed that those who are using network levels should contribute to their costs, and that continuing to charge in the historic "top-down" manner is a simple, pragmatic way to reflect a general tendency for users to source their power from higher network levels rather than just the lower voltage levels within their own DNO. Some respondents felt that change in this area would require significant analysis and would require a standalone change process and impact assessment. Some noted that within the networks there are multiple voltage levels and configuration, but users are usually charged using a more limited number of common charging methodologies.

1.13. There were also a number of responses that suggested the current approach may no longer be appropriate in a system where decentralisation and distributed generation means that flows are more multidirectional than was previously the case, with concerns that the existing principles may be limiting for new business models or innovation. There were some suggestions that industry or Ofgem might further investigate the case for change, and possibly consider if there was justification for users to make wider contributions. Some also suggested that we might further explore the fairness of the current approach with regards to users connected to the transmission and higher tiers of the distribution network, arguing that it was unfair that they should pay a larger proportion to residual charges than under the current regime.

Question 4: As explained in paragraphs 4.41, 4.43, 4.46, 4.49, 4.80, we think we should prioritise equality within charging segments and equity across all segments. Do you agree that it is fair for all users in the same segment to pay the same charge, and the manner in which we have set the segments? If not, do you know of another approach with available data which would address this issue? Please provide evidence to support your answer.

1.14. Many respondents supported the general principles of equal charges for similar users within segments and an equitable range of segments that reflects the range of different users on the system, as set out in our preferred option of fixed charges. However, a significant number of respondents felt that the method by which we proposed to segment users who are connected to the distribution network was not fit for purpose. This method used Line Loss Factor Classes or LLFCs, and was seen by many respondents as being insufficiently granular, particularly for small and medium size enterprises (SMEs) and HV network users.

1.15. In failing to appropriately segment users, respondents suggested that LLFCs were too arbitrary. Some users supported LLFCs to the extent that this approach would limit the ability of users to move between segments and so potentially reallocate revenues to other network users. Others noted that the LLFC system itself was now due to be replaced, meaning it is not a future-proof method.

1.16. While users recognised that too many segments would be complex and less practical, the level of segmentation was seen as too low for a proportional outcome, and many cited the heterogeneous nature of LV, HV and EHV non-domestic sites as justifying a much more differentiated approach. The presence of sites with multiple connections for resilience was noted. Smaller users in high-consuming segments were seen as particularly likely to be impacted by charge increases, whereas better segmentation would produce a more proportionate outcome.

1.17. There were also concerns that the use of LLFCs led to otherwise similar users being separated without good reason, such as in the case of single and two-rate domestic users. This was not seen as a relevant separation. Some respondents suggested a lower domestic residual charge should cover essential use and ensure a low charge for vulnerable users, with an additional rate for higher use, as the potential for increases to charges for the lowest-consuming households was seen as potentially unfair and disproportionate.

1.18. Some felt that capacity charges would be less prone to these issues, but may present other incentives to users such as reducing their capacity beyond what they economically require, which could mean an inefficient use of the networks. The proposed deemed capacity bands were considered by some users to be insufficiently granular also, and there were comments that deemed bands would require updating to ensure they are future-proof. Others suggested hybrid approaches that used fixed charges for certain smaller user classes and capacity charges for larger users.

1.19. Many respondents felt that as a point of principle that charges should continue to relate to usage, rather than type of user, and there were suggestions on alternative methods to allocate residuals.

Question 5: Do you agree that similar consumers with and without on-site generation should pay the same residual charges? Should both types of users face the same residual charge for their Line Loss Factor Class (LLFC)?

1.20. Responses were broadly split between those that agreed and disagreed with the proposal. Many respondents agreed with our reasoning that demand users with on-site generation were reducing their contribution to residual charges, and in doing so, increasing the share of residual charges picked up by other users. The view was shared that this was likely to be increasing the overall level of investment taking place in the electricity system, often with inefficient plant being used to avoid Triad periods. To the extent that residuals need to be recovered in a practical, non-distortive manner, many stakeholders agreed that those with on-site generation should face the same charges as those without.

1.21. Some respondents supported the changes in principle, but expressed concern about their impacts, such as on flexibility and investment, and about the implementation. A number of stakeholders felt that a joined-up approach where the TCR proposals were implemented alongside Access reform and with regard to areas such as flexibility was needed, with some suggesting the TCR should be deferred until more information is available. A number of respondents felt the approach was correct in principle, but the use of LLFCs to segment users and produce fixed charge was not the way to achieve this and would not give proportionate charges, as there are too few LLFCs to cover the necessary range of users.

1.22. Where respondents disagreed with Ofgem's approach, some considered the proposed change detrimental to investment and progress against low-carbon objectives. Some considered it a point of fair competition that users could invest to minimise their costs, or that charges by user type, rather than usage, went against concepts of fairness. Many felt the demand-reduction and energy-efficiency incentives provided by the existing system are useful in reducing network expenditure and low-carbon investment, and felt that users with on-site generation should receive lower charges that recognise these attributes. There were similar arguments for better recognition for reduced peak demand or imports of electricity, for the potential benefits of DSR and local generation, and for the value of flexibility to the wider system. Some felt renewable investment in particular should be recognised. Others felt a distinction needed to be drawn between sites that maintain a connection only for backup or periods of maintenance at times of low system stress, and those that import all their power including in peak times.

1.23. A number of respondents criticised the use of LLFCs citing similar concerns to those raised in response to question 4.

Question 6: Do you know of any reasons why the expected consumer benefits from our leading options might not materialise?

1.24. Most respondents supported the overall approach we had taken to quantify the benefits. However, many expressed reservations about the expected consumer benefits set out in our draft decision. Broadly, they focused on problems or limitations with the modelling approach or assumptions, expectations of interactions with wider changes to the industry and the creation of new distortions or consumer harms.

1.25. Some respondents felt that the level of uncertainty in the modelling, combined with the extent of uncertainty about other policy changes and the future development of the system meant that no real weight should be placed on the findings, or felt that given the existence of tipping points in the model, the outcomes could differ significantly from the results.

1.26. A number of respondents expressed concerns about the assumption that on-site generation with specific functions, such as Combined Heat and Power (CHP) plants, operate within the same competitive environments as large scale commercial power generation, as well as concerns about how the emissions from such facilities are treated by the modelling. Others felt that there was a wider lack of in-depth assessment of the carbon impacts of the changes. There were also a number of concerns set out about the background assumptions used in the modelling, such as the use of renewable energy build projections from National Grid's Future Energy Scenarios, as well as questions about how costly these projections might be to deliver without more clarity on future government renewable support policy.

1.27. A number of respondents raised concerns that new distortions or consumer harms would result from the proposals that were not accounted for in the modelling.

1.28. Respondents suggested further harms might emerge from incentives to aggregate demand behind single meter points or develop private wire networks to minimise individual fixed charges, or could disconnect altogether.

Question 7: Do you agree that our leading options will be more practical to implement than other options?

1.29. While many respondents agreed that the leading options were more practical to implement, a significant number of respondents were concerned about specific practicality issues or the proportionality of the options for certain users. Some users raised concerns about whether an over-cautious emphasis on practicality might compromise the ability of the system to arrive at efficient arrangements fit for the future system. A number were concerned about the availability of data for domestic users that would allow them to be assigned to a deemed capacity band, as there are limitations to the data that is currently available. Fixed charges were seen as particularly hard to avoid, and simple and inexpensive to apply. Some respondents suggested capacity charges may provide improved economic efficiencies.

1.30. Some respondents felt that our capacity option was more practical for large users, as agreed capacity values already exist for most users, though not for those connected directly to the transmission system. Some respondents suggested delaying domestic implementation until the roll out of smart meters with the necessary functionality to allow for capacity charges, rather than being restricted to consumption-based metering as is the case for most users. Several respondents suggested a hybrid system using fixed charges for smaller users with capacity charges for larger. There were concerns that capacity charges might bring volatility for users, particularly those that are assigned deemed capacity charges.

1.31. Many stakeholders felt that the application of fixed charges was well understood by suppliers, but concerns around the treatment of sites with multiple meters (both MPANs and sub-meters) were raised, with stakeholders suggesting that site-related charges should instead be pursued. The need to identify generation sites and to ensure that mixed-use sites have proportionate charges was raised by multiple stakeholders. These issues were seen by some stakeholders as potentially very complex and their solutions potentially very costly, with the potential for costly compliance monitoring.

1.32. A number of stakeholders expressed concerns about the LLFC approach, noting that other options were available that would be more practical, such as distribution tariff groups, or combinations of LLFC-based fixed charges with capacity or volumetric charges. Others, however, felt that the use of an existing method such as LLFC was particularly practical.

Question 8: Do you agree with the approaches set out for banding (either LLFC or demanding for agreed capacity)? If not please provide evidence as to why different approaches to banding would better facilitate the TCR principles.

1.33. While stakeholders generally supported the use of bands to differentiate users, a number of respondents raised challenges with the proposed method of Line Loss Factor Classes (LLFCs) to differentiate between users. They felt that this method, while practical and using existing industry data, was not sufficiently granular and would lead to different users being treated in the same manner, with some respondents noting large changes in user charges due to a lack of segmentation. Others felt LLFCs would work only if supplemented by additional segmentation or in combination with other available industry data. Respondents questioned how new sites or changes of use on a site might be dealt with, and how users moving to half-hourly settlement might see their charges change. Some considered there was insufficient analysis on the suitability of LLFCs and found the concept lacked transparency.

1.34. Some segments, such as High Voltage in particular, were noted to have a very large variety of users, and EHV and transmission, where single segments were proposed, were considered to be inappropriately lacking in differentiation.

1.35. A number of respondents felt that the use of a hybrid option that applied capacity charges to larger users would mitigate the lack of granularity perceived in the LLFC-based fixed charge proposals. Some respondents suggested the use of capacity charging could be further expanded as additional segments move to half-hourly settlement or as technology allows. Others felt low-use discounts might be appropriate for some segments.

1.36. Some stakeholders felt that our fixed charge proposals, which proposed a single band each for single-rate and two-rate (economy seven) users, separated these users unjustifiably and would be detrimental to users who had or intended to take up low-carbon technologies.

1.37. Additional concerns were raised about the impacts and incentives of fixed charges on different domestic demographics. Low-consuming users were noted by several respondents as being particularly impacted by a move to fixed charges, which would see their charges increase. In addition, high consuming households may have a reduced incentive to moderate their consumption if the fixed charge option was pursued.

1.38. Some respondents felt the agreed capacity approach should be more closely tied to the network planning principles and that any deemed capacities should be determined using network diversity, and also questioned whether the deemed capacities being considered were following a consistent basis with the agreed capacities. Some felt that deemed capacity was arbitrary, requiring too much regulatory discretion. Others felt it was insufficiently equitable and that it would lead to cross-subsidy or cost increases for certain users. Other respondents supported the use of capacity, including deemed capacity, suggesting they considered it more equitable than fixed charges. Some cautioned that any arrangements needed to be consistent with Access reform changes. Respondents also had concerns about volatility of charges for domestic users and the cost of setting up, administering and policing the reforms.

Question 9: Do you agree that LLFCs are a sensible way to segment residual charges? If not, are there other existing classifications that should be considered in more detail?

1.39. A number of respondents felt that LLFCs present a pragmatic route to user segmentation using existing industry data, and there was support for the ability to derive similar charges for those with and without on-site generation. Some users supported LLFCs to the extent that this approach would limit the ability of users to move between segments and so potentially reallocate revenues to other network users. The existing widespread use of LLFCs was seen as a practical benefit. This was on the basis that all MPANs are associated with an LLFC, meaning in strictly practical terms implementation is likely to be straightforward and cost-effective.

1.40. Similar points were raised about the challenges using LLFCs as set out in question 4.

1.41. Respondents again argued that more granular segmentation, or the use of capacity-based charging, would be needed to produce a more proportionate outcome. A number of stakeholders felt that a hybrid or combination of the fixed and capacity options would best satisfy our objectives, with fixed charges for smaller users and capacity charges for larger users. Stakeholders raised particular concerns about the impact on large industrial users, and some felt the retention of charges that users can respond to is fundamental to competitive markets and would be beneficial in incentivising capacity release to those who value it most. Some respondents felt a segment’s share of peak capacity rather than volumes would be more appropriate in setting the proportions of revenue.

1.42. Others felt that the segmentation of domestic users by meter type was not well justified, as the use of LLFCs leads to a difference in the treatment of single-rate and two-rate domestic users.

Question 10: Do you agree with the conclusions we have drawn from our assessment of the following? a) distributional modelling b) the distributional impacts of the options c) our wider system modelling d) how we have interpreted the wider system modelling? Please be specific which assessment you agree/disagree with.

1.43. Similar to responses to question 2, some users questioned whether the modelled benefits would really materialise, and whether the changes adequately considered carbon impacts and the wider policy landscape, including BEIS Industrial Strategy, the Clean Growth Strategy, various targets and other Ofgem projects. In particular, users questioned how the model had accounted for changes to the costs stemming from Contracts for Difference for renewables under different scenarios and sensitivities, and how the modelling accounted for potential impacts of the recent Court of Justice of the European Union (CJEU) decision on state aid in respect to the GB Capacity Market (CM) which was published after our minded-to decision.

1.44. Responses expressing reservations about the expected consumer benefits set out in our draft decision covered a range of areas. Broadly, they focused on problems or limitations with the modelling approach or assumptions, expectations of interactions with wider changes to the industry and the creation of new distortions or consumer harms.

1.45. Some respondents felt that the use of the Steady Progression scenario is not appropriate, as under this scenario the UK is not assumed to meet its legal obligations toward decarbonisation, while others felt that the model’s assumptions around the Transmission Generation Residual (or any policy taking its place) were not robust.

1.46. A number of stakeholders expressed concern that the assessment did not include more analysis on the potential combined impacts of TCR and the Access reform work, possible future RIIO changes, or the impact on the modelling and wider policy caused by the recent Court of Justice of the European Union (CJEU) decision on state aid in respect to the GB Capacity Market (CM) which was published after our minded to decision.

1.47. A number of respondents raised concerns that new distortions or consumer harms would result from the proposals that were not accounted for in the modelling. Some stakeholders felt the removal of the incentive to reduce demand or imported volumes could lead to increased network reinforcement requirements, and noted that network cost impacts were not directly modelled in the draft impact assessment. Some respondents felt the inclusion of network costs would reduce the system benefits, while others felt this would bring additional benefits as the system would be built out more efficiently with fewer distortions.

1.48. Some respondents questioned whether the modelling had adequately taken into account the potential for large users to disconnect (or in the case of capacity charges, significantly reduce their connection size), either due to sites closing or users withdrawing from the network for cost reasons.

1.49. Regarding the modelling of the non-locational Embedded Benefits, there were concerns that the impacts from ongoing compliance with the EU cap on generation charges had not been fully taken into account. In addition, many stakeholders felt that the changes to the Transmission Generation Residual were not ones they could have reasonably predicted. Respondents suggested that smaller generators may not have been able to predict these changes, and some felt in particular that the non-locational Embedded Benefit reforms were not well communicated in advance.

1.50. Other stakeholders felt that Ofgem's modelling was premature, as it had not been able to model the outcome of the balancing services charges taskforce. Some respondents questioned whether enough consideration of the whole-system impacts had been carried out, and whether further assessment of the environmental, social or industrial impacts was needed.

Question 11. Do you agree with our proposed approach to the reform of the remaining non-locational Embedded Benefits.

1.51. We received a broad range of stakeholder views. A number of respondents agreed that the existing regime was distortive, and agreed with Ofgem's rationale for reform.

1.52. Some stakeholders also felt that our approach to the assessment of the Embedded Benefit changes was less rigorous than that for the network residuals, or that the Full Reform was inconsistent with the wider TCR aims of placing non-forward looking charges on final demand users only.

1.53. Some respondents felt that the changes to balancing services charges disproportionately affected smaller generators and that the TCR stakeholder engagement was not accessible to smaller market participants in the way it was to larger ones. Others felt that, while the proposals could be supported, implementation needed to be aligned with Access reform to prevent an interim period between reforms that could harm investment.

1.54. A number of respondents felt partial balancing services charges reform was more supportable than Full Reform as it would be expected to lead to a less severe impact on distributed generation, and would maintain a more level playing field between on-site generation that doesn't export and on-site generation and distributed generation that does export. Some felt it inconsistent for Ofgem to favour the removal of network residual charges from generation (in transmission generator residual reform) while consulting on changes to balancing services charges that would see the addition of residual-like cost-recovery charges for some generators. The work of the Balancing Services Charges Taskforce was noted by a number of responses, with many suggesting that any decision on reform should take into account the views of the TF or that the decision itself be delegated to the TF.

Question 12: Do you agree with our proposal not to address any other remaining Embedded Benefits at this stage? Which of the Embedded Benefits do you think should be removed? Please state your reasoning and provide evidence to support your answer.

1.55. Generally, respondents supported this decision. A number of respondents considered these remaining Embedded Benefits to be relatively immaterial and of lower priority. Some respondents disagreed, being of the opinion that no reform should take place at all, or that reform to all remaining Embedded Benefits should happen at the same time, as any known distortion should be dealt with. Other stakeholders pointed to related perceived distortions, such as the existing double charging of storage through both demand residuals and demand and generation balancing services charges, and the recovery of policy costs, which does not fall under Ofgem's competency. Some respondents suggested that the Small Generator Discount should be considered further in the context of the wider Embedded Benefit landscape.

Question 13: Are there any reasons we have not included that mean that the remaining Embedded Benefits should be maintained?

1.56. Responses to this question covered three broad categories.

1.57. First, concerns about the analysis, and the modelling, meant some users felt this decision was not underpinned by the necessary evidence base. In particular, a number of responses said that balancing services charges reform direction should not be set before the Balancing Services Charges Taskforce has published its conclusions, while others suggested that more work was needed to identify whether additional costs or benefits of embedded generation were present.

1.58. Second, respondents felt that more information was needed to set out the impacts on different types of network users, and particularly on low-carbon technologies and storage. The treatment of certain renewables in the modelling was unclear to some respondents.

1.59. Finally, many respondents consider the impact on certain sectors to be too great to justify the benefits. Several respondents felt reform should be aligned with Access to ensure a joined up approach. Others felt that incentives such as Embedded Benefits were needed to reflect the perceived benefits of distributed technologies such as reduced losses or the greater efficiency of Combined Heat and Power (CHP). Others felt that reform would lead to a regime where distributed generation was at a disadvantage, and noted reform would both increase the costs and reduce the bankable revenue streams of renewable investments, potentially harming renewable build.

Question 14 – Do you agree with our proposed approach to transitional arrangements for reforms to: a) transmission and distribution residual charges b) non-locational Embedded Benefits?

1.60. On the residual element of the policy, a significant proportion of respondents felt later implementation or a longer transition was needed, with alignment with the Access reform project implementation or the balancing services charges taskforce recommendations. These respondents supported 2023 implementation or phased implementation from 2021 to 2023. A number of respondents were clear that earlier implementation would not be proportionate. Others felt no decision on implementation should take place until there is more clarity on the status of the GB capacity market.

1.61. For Embedded Benefits, a small number of respondents including consumer representatives prefer immediate implementation to maximise the consumer benefits of the proposals, but many others preferred later implementation

1.62. Some felt further transitional arrangements, such as phasing over a number of years, or later implementation for sections of the policy such as the transmission generator residual change, should be considered. Some respondents felt that additional time should be granted to the balancing services charges task force to allow for any forward-looking elements to be identified and separated from residual or cost-recovery elements. A small number of stakeholders felt that grandfathering of existing arrangements should be considered for existing recipients, with the arrangements changing for new investors. Some stakeholders raised the practical implications of implementing full balancing services charges reform, including charging embedded generators, when this could later be reversed by a decision to place charges only on demand.

1.63. Some respondents noted that contracts for power and supply go out several years into the future and the existing charging arrangements may have been assumed in agreements and forecasts. Many respondents expressed that a reasonable lead time for changes is therefore desirable to ensure that the forecasts underpinning these contracts do not change significantly. Others felt that phased approaches may increase implementation complexity.

Question 15: Do you agree with our minded to decision set out? If not please state your reasoning and provide evidence to support your answer.

1.64. Around one quarter of the responses actively supported the case for change, with around half of these explicitly setting out fixed charges as their preferred charging option. Slightly fewer preferred capacity charges, and a smaller number suggested we consider a hybrid of these two approaches.

1.65. A number of respondents felt our policy failed to adequately differentiate between different types of domestic users, in particular vulnerable users or those on low incomes, who often consume less electricity and so may be disadvantaged by fixed charges. It was suggested this would not be an equitable outcome and may not comply with commonly-held principles of energy justice. Some respondents saw little reason for single-rate and two-rate domestic users to be separate. Some felt the existing regime should be retained, or other options such as council tax related charges should be explored. A number of stakeholders expressed concerns about the level of segmentation and the level of information provided, particularly in the SME and microbusiness sector. LLFCs were widely thought to be inadequate for segmenting users in an equitable way. Some users suggested a hybrid approach was most appropriate, using fixed charges for smaller users and capacity where this is possible, or suggested two-part charges that would allow users that self-generate to avoid some residual costs. Others felt charging should more proactively consider emissions and sustainability, with many responses feeling that the decision does not pay sufficient regard to environmental issues.

1.66. There was opposition to Embedded Benefit reform from those who were likely to see a reduction in revenues as a result. In many cases, generators felt they would be unable to pass on increased charges, or recover lost revenues.

1.67. Geographical differences in charges were also raised as having the potential to lead to unfair or undesirable outcomes. For example, similar industrial users would face significantly different charges depending on whether they are based in Scotland or in England and Wales, due to differing definitions of the transmission network. Some respondents asked whether we might consider further socialisation of residuals. Some respondents felt the changes were contrary to wider moves to decentralise and decarbonise the electricity system, as well as to improve energy efficiency.

1.68. Stakeholders described regulatory developments elsewhere that could significantly affect the analysis, such as the RIIO2 plans, alignment with Access and wider charging reform and industry changes. Some felt the decision should be delayed until Ofgem's Access project had provided more details on the future arrangements. Others felt that delay would simply increase consumer costs. These respondents also expressed concerns about impacts on investment, cost of capital, carbon emissions and security of supply in our modelling. Many were concerned that regulatory uncertainty stemming from TCR and other changes was leading to reduced investment in a number of technologies, and that the level of change in the sector was leading to high regulatory burden on organisations, particularly smaller ones. Many users suggested longer implementation would be preferable.

Question 16: For our preferred option do you think there are practical consideration or difficulties that we have not taken account of? Please provide evidence to support your answer.

1.69. Some respondents felt our assessment had failed to consider in sufficient depth the areas of practicality and cost, and particularly the potential for significant changes for the network licensees and suppliers in delivering the preferred options. A number were concerned about the availability of data for domestic users under the capacity charging options, which would be needed to allow users to be assigned to a deemed capacity band.

1.70. Some respondents who opposed reform felt that the most practical option was to retain the existing regime. Respondents also questioned how fixed charges might work in a multi-supplier or EV-led future.