

DP218 'Review of the DCC Charging Methodology'

Consultation on proposed changes to DCC charges

Issued: 9 December 2024 Respond by: 17:00 on 3 February 2025 Contact: <u>consultations@smartdcc.co.uk</u> Classification: DCC Public

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1. Introduction

1.1. Background and context

- 1. The Data Communications Company (DCC) is required by its Licence to keep its charging policy under review. Changes in the way the DCC network is used has prompted a re-examination of DCC's Charging Methodology to ensure that current arrangements remain in line with DCC's charging objectives outlined in Section C 'Governance' of the Smart Energy Code (SEC).
- 2. Any change to DCC's charging methodology could impact all SEC Party categories that directly or indirectly (through intermediaries) generate traffic on the network. Potential changes to charging will also be of interest to prospective DCC Users as well as organisations who use a third-party provider to access DCC services.
- 3. The industry initiated the SEC modification DP218, 'Review of the SEC Charging Methodology'¹ to examine reforms to DCC charging. It was issued in line with the established process for SEC modifications.
- 4. This consultation paper aims to reflect and pose a series of consultation questions on the implications, risks and benefits associated with proposed changes to ensure that DCC's charging policy remains in line with its licence obligations.

1.2. Previous engagement

- 5. DCC published a Request For Information (RFI) document in April 2024,² representing the first step in the ongoing public consultation process to understand the impacts of potential changes to DCC's charging approach. The RFI sought views on:
 - The case for change, including questions soliciting further insights around the changing use of the DCC network.
 - The scope of the review, including the charges under review and general design considerations.
 - The charging models under consideration, including five proposed charging model options and the possible merits/demerits of each option.
 - The most viable option, and whether there are any other options which could be considered.
- 6. Production of the RFI content was supported by Frontier Economics a specialist economic consultancy with expertise in the energy sector and other regulated utilities. Frontier's work is focused on:
 - drawing on its expertise as a leading energy market consultancy to support the development of charging options informed by, but not limited to, precedents from other regulated sectors;
 - advising on regulatory considerations such as cost recovery and competition law; analysing the impact of different charging models, including distributional impacts of any changes to approach; and
 - helping DCC understand industry feedback on the different models proposed, providing independence of thought.
- 7. DCC has worked closely with the Smart Energy Code Administrator and Secretariat (SECAS) throughout to ensure industry remains updated on assessments of the current charging framework and network usage. This has culminated in several industry meetings being held to date in which DCC has presented findings and sought industry feedback as part of the DP218 process. An industry

¹ <u>Review of the SEC Charging Methodology - Smart Energy Code</u>

² DP218 'Review of the SEC Charging Methodology' – Request for Information (RFI) | Smart DCC

webinar was also held during the RFI response period to give respondents an opportunity to ask any questions about the options or questions set out in the RFI, before responding.

8. A summary of RFI responses was published in September 2024³ and provided clarifications on issues raised by RFI respondents where it was possible to do so.

1.3. Key insights gained from the RFI

- 9. DCC published a summary of all responses received to the RFI earlier this year. The insights set out below are those which are the most important in shaping the scope and direction taken in this second consultation.
- 10. The RFI process revealed a broad consensus for change to DCC's existing approach to charging, with some support for change registered across all the User Categories who responded. There was, however, no overall consensus for any one of the five proposed charging model options, although broad consensus was reached across a number of other areas:
 - Moving to a fully variable cost model (Option 5 in the Charging RFI) was deemed inappropriate at this stage.
 - Were a change to be introduced to charge Other Users of the DCC network, this could only be achieved on a *use of network* basis and DCC should be aware of the impacts on nascent business models, competition and market innovation.
 - It was unclear to RFI respondents what rationale drove DCC's existing approach to allocating charges across core user groups and it was felt further work should be undertaken to assess the validity of the current approach.
- 11. It was also acknowledged that there was no case, at this stage, for introducing charges to Registered Supplier Agent (RSA) and Meter Data Retriever (MDR) Users. These Users do not drive significant network demand at this time and principally exist to support Core User activity on the network. Equally, it is not within the scope of this consultation to consider how the costs associated with the SEC modification process are attributed.
- 12. Direction was provided by Government (the Department for Energy, Security and Net Zero (DESNZ)) in its own RFI response. DESNZ provided clarity across three important areas:
 - DCC's fixed costs should be recovered from User roles with the least elastic (i.e. least price sensitive) demand, to avoid stifling innovation.
 - Should Other User roles face charges, these charges should reflect the marginal costs that their actions impose on the DCC network.
 - DCC Users within the same User Role must face the same type of charges for using the network, but DCC could charge different User Categories on a different basis for the same service under the terms of its licence conditions.
- 13. The majority of RFI respondents expressed support for implementing a Smart Meter Energy Data Repository. While the decision to proceed with its implementation lies with Government, any proposed changes to DCC's charging methodology should align with the potential introduction of such a repository.
- 14. RFI respondents also requested that DCC provide further detail and analysis to help assess the impact of any change in DCC's charging methodology. This consultation provides further information on the main areas referenced by respondents in both the analysis presented and, in the appendices, which address DCC's:

³ DCC summary of responses to the DP218 'Review of the SEC Charging Methodology' RFI | Smart DCC

- approach to network traffic management; and
- cost structure and how increased use of the network impacts costs.

1.4. Options for consultation

- 15. The insights detailed above have directly shaped the scope of work that has been progressed in this consultation, which is focused on two potential areas of change:
 - Adjusting Fixed Charge weightings an assessment of the adequacy of the weighting factors which underpin DCC's existing charging approach to charging Core Users (i.e. Energy Suppliers and Electricity Distributors) has been conducted.
 - Introducing a new charge for Other Users work to identify a DCC use of network charge (a unit rate) that could apply to Other Users has been undertaken.
- 16. In the RFI document and in industry engagement to date, DCC has set out the framework under which any potential changes to charging will be assessed. This framework is set out again below (Figure 1 Guiding principles for the charging review), including a further principle to provide a focus on consumer impacts. In the following chapters, each of the potential changes to DCC charging is assessed against these principles, with consumer impacts being modelled where appropriate.

Figure 1: Guiding principles for the charging review



17. This follow-up consultation provides additional insights in these key areas and seeks feedback on a potential way forward for the charging review. The responses to this consultation will be shared with DCC's regulator, Ofgem, and sponsor Government Department, DESNZ, to support decision-making around potential change.

1.5. Navigating this document

- 18. The remainder of this consultation comprises of the following chapters:
 - Chapter 2: Updating Fixed Charges for Core Users. This chapter sets out the rationale driving existing weighted charges, assesses whether that rationale remains relevant today and considers the case for potential change.
 - Chapter 3: Introducing charges for Other Users. This chapter sets out an approach to identifying a use of network cost (a DCC "unit rate") and considers the case for how that could be applied to DCC Other Users.
 - Chapter 4: Smart Meter Data Repository. This chapter considers the potential implications between the proposed changes to DCC's charging methodology and the introduction of a Smart Meter Data Repository.
 - Chapter 5: Conclusions and next steps. This chapter outlines the next steps for the charging review and interactions with the SEC modification process.

1.6. How to respond

19. This consultation will run for eight weeks from 9 December 2024 to 3 February 2025. SECAS will be supporting industry engagement over this period. Stakeholder briefings and events will be held in January 2025 over the consultation period to support stakeholders in preparing their responses.

2. Updating Fixed Charges for Core Users

20. In this chapter, the rationale behind the current charging methodology that applies to DCC's Core Users is detailed alongside the case for, and impact of, adjusting the Fixed Charge weightings.

2.1. Current approach

- 21. The SEC currently defines five Charging Groups which map to different DCC User roles:
 - a. Three Charging Groups fall under the Energy Supplier User role: Import Suppliers (IS g1), Export Suppliers (ES g2), and Gas Suppliers (GS g3);
 - b. Two Charging Groups fall under the Network Operator User role: Electricity Distributor (g4) and Gas Transporter (g5).
- 22. DCC currently recovers the vast majority of its allowed revenue from these five Charging Groups, via Fixed Charges that are levied on a per-meter basis.⁴
- 23. To calculate these Fixed Charges, DCC's allowed revenue is first apportioned to each of the different Charging Groups. This is done using a set of **weighting factors**⁵ specifying the contribution of each Charging group to revenue recovery. Once revenues have been allocated to each Charging Group, Fixed Charges are determined by dividing the allocated revenue by the number of meters associated with that Charging Group. This gives a per-meter charge for each Charging Group. Table 1 below sets out the weighting factors and other key parameters used to derive Fixed Charges for each Charging Group for Regulatory Year 2024/25.

Table 1: Overview of existing charging arrangements for Regulatory Year 2024/25 by charging group

Charging Group	Weighting Factor	Number of Mandated Smart Meter Systems (MSMS) including domestic and non- domestic SMS (millions)	Monthly Fixed Charge (£/MSMS) as per RY 2024/25 Charging Statement
g1 – Import Electricity Suppliers	0.49	31	£0.937
g2 – Export Electricity Suppliers	0.08	-	£0.154
g3 – Gas Suppliers	0.37	24	£0.707
g4 – Electricity Distributors	0.06	31	£0.103
g5 – Gas Transporters	0.00	25	£0.000

Source: DCC, Charging Statement for Regulatory Year 2024/25

DCC Public

⁵ See Table 12 of <u>DCC's charging statement.</u>

6.

⁴ Costs recovered through these charges make up 92% of DCC's cost base. See DCC's charging statement for RY 2024/25, Table

- 24. As set out in the RFI document published earlier this year, DCC's charging methodology and particularly the weighting factors have remained unchanged since 2013. The weighting factors were initially set by DESNZ (previously the Department of Energy & Climate Change (DECC)) so that charges would be "...weighted by the relevant proportions of electronic message types for each group of DCC Users to provide a broadly cost reflective allocation of fixed costs".⁶
- 25. During engagement with DESNZ over summer 2024, the Department confirmed that, at inception, the weighting factors were intended to reflect the network capacity expected to be used by each Charging Group. These were calculated by multiplying the estimated number of Service Requests from each Charging Group by the expected size of the Service Requests. Given the role of energy suppliers in firmware upgrades, prepayment as well as billing, they have historically contributed the most to revenue recovery.

2.2. Rationale and scope for change

26. DCC is required by Part E of its Licence, to keep charges under review and ensure that charges remain cost reflective. Section K3.13 of the SEC requires DCC to revisit the weighting factors once data on usage becomes available:

"For Fixed Charges, the "Charging Group Weighting Factors" to apply to each Charging Group in respect of each Regulatory Year are to be determined by the DCC in accordance with Section K3.12, and set out in the Charging Statement for that Regulatory Year. The DCC shall make such determination based on its estimate of the demand of persons within each Charging Group for each of the Services other than the Elective Communication Services. Prior to the start of the UITMR Period**7**, such estimates of demand will be based on assumptions for the Regulatory Year starting on 1st April 2021. Once data on usage becomes available the estimates will be determined as the average of the previous two full Regulatory Years of actual data plus the DCC's forecasts for the two Regulatory Years ahead".⁸

- 27. While the current weighting factors have, until recently, remained broadly in line with network use, recent changes in network traffic mean that these weighting factors are no longer expected to reflect aggregate network usage coming from each Charging Group.
- 28. This ievolution in network use is mainly driven by an increase in traffic coming from Electricity Distributors in recent years; while Electricity Distributor traffic accounted for 2% of total traffic in RY2023/24, it now accounts for approximately 10% of total traffic (based on data for RY 2024/25 to date). This increase has been driven by several factors, including regulatory requirements to assess the introduction of local flexibility markets to mitigate constraints on the low voltage network, as well as the release of Aggregated Smart Meter Data.⁹ DCC engagement with Electricity Distributors suggests that this trend is set to continue as more Electricity Distributors step up their usage of the DCC network in line with other network operators.
- 29. To comply with DCC Licence requirements and the SEC, there is a case to update the current weighting factors to reflect the actual use of the network by different Charging Groups. This will make DCC's charges more cost reflective and ensure that DCC's revenues are charged to different Charging Groups according to their usage of the network.
- 30. Updated weighting factors could be determined based on the average of two Regulatory Years of historical usage data and two Regulatory Years of forecast usage data, as described in SEC Section

⁶ <u>Smart Metering Implementation Programme, Stage 1 of the Smart Energy Code – a Government response and a consultation on draft legal text.</u>

⁷ 'UITMR Period' means the period, covering User integration testing and the mass rollout period, which for these purposes: (a) commences at the start of the month in which the DCC is first obliged to make regular monthly payments to one or more of the DCC Service Providers; and (b) ends on 31 March 2021.

⁸ Smart Energy Code, K3.13.

⁹ In August 2023, Ofgem updated its <u>Data Best Practice Guidance</u>, requiring all DNOs to publish aggregated smart meter consumption data on their Open Portals by February 2024. Under the current price control (RIIO-ED2), DNOs were also required to publish <u>Network Visibility Strategies</u> outlining their plans for deploying equipment, leveraging smart meter data, and using data analysis and modelling for network monitoring and planning purposes, including the integration of flexibility solutions.

K, clause K3.13 (see paragraph 26 of this document). The weighting factors could be reviewed and updated on a regular basis (for example annually, or every two years) to ensure that weights remain reflective of actual network usage.

- 31. To provide an indication of how network usage has evolved relative to the current weighting factors, we have estimated updated weighting factors based on two different measures¹⁰:
 - a) An average of Service Request volume observed in the last month of 2022 and 2023 respectively, and forecasted Service Request volume for the last month of 2024 and 2025 respectively; and
 - b) The same averaging approach described above, but combining Service Request volume with information on the size of those Service Requests, to give a measure of capacity usage.
- 32. The information DCC has used on Service Request size under approach (b) is currently an estimate, i.e. it is based on information DCC holds on the size range of different Service Request types, rather than the assumptions on sizes of all Service Requests that would be sent.¹¹ DCC is currently progressing work to collect and analyse actual Service Request size data which will be available in Q1 2025. Approach b) above using estimated size data should be interpreted as a temporary proxy until actual sizing data is available, and the results should be seen as indicative.
- 33. Both methods lead to similar results in terms of the share of network usage coming from each Charging Group, as set out in below.

Charging Group	Legacy Weighting Factors	Updated Weighting Factor based on Service Request volume	Sensitivity: updated Weighting Factors based on Service Request volume and sizes
g1 – Import Electricity Suppliers	0.49	0.41	0.39
g2 – Export Electricity Suppliers	0.08	0.07	0.06
g3 – Gas Suppliers	0.37	0.31	0.30
g4 – Electricity Distributors	0.06	0.22	0.25
g5 – Gas Transporters	0.00	0.00	0.00

Table 2: Current vs updated weighting factors for Core Users

Note that the numbers are indicative - these estimates are not intended to be used in the short term to re-weight DCC charges for Core Users.

34. This initial analysis shows that network usage across Charging Groups is expected to materially change relative to the legacy assumptions used to set the current weighting factors. In particular, Electricity Distributors (g4) are expected to represent a relatively higher share of network usage, and Energy Suppliers a relatively lower share.

¹⁰ For avoidance of doubt, this analysis does not include Other Users' traffic, which is addressed further in Chapter 3. ¹¹ This preliminary analysis is based on technical data on message sizing tool used by DCC for internal purposes, which provides a theoretical size range (minimum and maximum) for each of the Service Requests specified in the DUIS.. The results of this sensitivity are therefore indicative and depend on various working assumptions.

- 35. In the long-term, DCC will continue to periodically review its charging methodology for Core Users. One potential evolution could be to extend usage-based charges¹² to Core Users (alongside Fixed Charges) to improve the cost signal sent to Core Users.
- 36. The consultation questions at the end of this section seek views on the proposed update to the Fixed Charge weighting factors.

2.3. Impact assessment

- 37. Under the proposal set out above, DCC's total 'Fixed' costs (as defined in DCC's current charging methodology) would continue to be recovered from Energy Suppliers and Network Operators. Updating the weighting factors would ensure that the charges paid by each User group more closely reflect network usage.
- 38. To provide an indicative assessment of the impact of this proposal on DCC Users, we have used the updated weighting factors calculated in Table 2 above, based on Service Request volume. The table below illustrates the impact of this proposed change if the updated weighting factors set out above are applied to DCC's costs for Regulatory Year 2024/25.

Table 3: Revised Fixed Charges for Core Users based on DCC costs for RY2024/25¹³

Charging Group	Monthly Fixed Charge (£/MSMS) as per RY 2024/25 charging statement	Revised Monthly Fixed Charge (£/MSMS) based on updated Weighting Factors
g1 – Import Electricity Suppliers	£0.937	£0.772
g2 - Export Electricity Suppliers	£0.154	£0.127
g3 – Gas Suppliers	£0.707	£0.583
g4 - Electricity Distributors	£0.103	£0.367
g5 – Gas Transporters	£0.000	£0.000

Note that the numbers are indicative - these estimates are not intended to be used in the short term to re-weight DCC charges for Core Users.

- 39. This analysis suggests that per-meter Fixed Charges for Energy Suppliers would decrease by approximately 20% while Fixed Charges for Electricity Network Operators would increase three- to four-fold.
- 40. It is also important to note that this is a static analysis, which reallocates DCC's current costs between User groups. It does not capture the dynamic effects of introducing periodic updates to weighting factors. By setting charges such that they better reflect network usage, this may help create an incentive (at least at the aggregate level) for Core Users to improve the efficiency of their use of the DCC network.
- 41. If some traffic can be avoided, this will reduce the share of cost borne by that User group in the future when weighting factors are updated. Over time, this approach may help limit the capacity

¹² Greater detail is provided in Chapter 3 on the proposal to calibrate usage-based charges for Other Users.

¹³ For g2, DCC's charges model derive a Fixed Charge despite the number of meters associated with this group being equal to nil. This is because the model includes additional calculation steps to 'rescale' the weighting factors based on the actual distribution of meters across Charging Groups, which we have not reproduced here for simplicity.

growth that the DCC network needs to offer, reducing DCC's future costs to the benefit of end customers.

- 42. As explained in more detail in Appendix 3, DCC is pursuing a number of technical and non-technical approaches to traffic management. The intention is not for re-weighting to be used primarily as a traffic management measure.
- 43. Reweighting Fixed Charges to core Users to reflect prevailing usage would be simple to implement without the need to change the charging methodology or DCC's billing systems¹⁴ and could be implemented from Regulatory Year 2026/27 (the earliest period possible).
- 44. Moving away from the current weighting factors would represent could materially increase the charges faced by Electricity Distributors. This could lead to changes in the way that Electricity Distributors use the DCC network. For example, by impacting decisions on whether to use smart meter data to support a variety of network activities (including voltage data, alerts, energy demand modelling, and local area energy planning) or investing in alternative solutions such as increased use of network sensors to support those activities.
- 45. This change would also result in an equivalent decrease in the total charges paid by Energy Suppliers and similarly could impact their use of the DCC network.
- 46. Feedback on the potential implications of these changes is sought, particularly regarding how this approach might affect Electricity Network Operators' and Energy Suppliers' use of the DCC network and the way these users leverage smart meter data. DCC is mindful of the need to actively enable Electricity Network Operators' use of the DCC network, to efficiently support use cases that meet regulatory requirements for Electricity Network Operators as well as wider network distribution use cases. This is in line with original business case expectations for the smart metering programme.
- 47. There is also a distributional impact for end-consumers as both the charges paid by Energy Suppliers and Electricity Distributors are ultimately passed through to end-consumers' energy bills. Currently Energy Suppliers pass DCC charges on to end consumers through their energy contracts. How these charges are reflected in the final bill depends on the type of contract offered. In particular, whether the contract is covered by the energy price cap, which applies to standard variable tariffs and fixed term default tariffs (collectively known as 'default tariffs'), or through other offers, which may include fixed-term or variable contracts.
- 48. Network Operators also pass DCC charges through to end customers via Distribution Use of System (DUoS) charges, enabling their recovery through allowed revenues. DCC charges are currently treated as pass-through costs in Ofgem's RIIO¹⁵ price controls, and feed through into fixed charges within the DUoS charges. DUoS charges in turn form part of end consumers' energy bills and are recovered from Energy Suppliers on behalf of Electricity Distributors.
- 49. Because the weighting factors used to allocate DCC's costs across Charging Groups will always sum to 1, this means that even if weighting factors are changed, the total amount of revenue that DCC recovers from its Users will remain unchanged, and in turn the total DCC costs paid by end-consumers will remain unchanged. However, there may be some distributional impact across different types of end consumers depending on how any changes impact the structure of DUoS charges, and how energy contracts are structured. Analysis has been undertaken to evaluate these distributional impacts, which is presented in the next section.

2.3.1. Impact on end-consumer bills

50. To assess the potential distributional impact on bills for consumers subject to the price cap, Frontier Economics modelled the impact of the proposed reweighting on Electricity Distributors' DUoS charges and Energy Suppliers' costs and ran these changes through Ofgem's price cap model to

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¹⁴ Some minor updates to the Charging Statement will likely be necessary.

¹⁵ Revenue=Incentives+Innovation+Outputs

estimate the impact on individual tariffs.¹⁶ There are some important caveats to this approach which are set out below.

- The price cap sets an upper bound on default energy tariffs Suppliers are free to set prices below this level. Therefore, small changes in the price cap may not necessarily feed through directly into changes in actual tariffs set by Suppliers.
- While the price cap applies to most domestic consumers on Standard Variable Tariffs (approximately 27 million customers as of July 2024)¹⁷, for other domestic consumers (subject to fixed or other bespoke tariffs), and for non-domestic consumers, Suppliers set tariffs on a commercial basis. For these consumers, it is therefore not possible to determine the impact of a reweighting on tariffs. However, we would not expect to see a material distributional impact for these consumers, given that Suppliers would ultimately be passing through the same set of DCC costs to end consumers, regardless of whether these are initially allocated to Electricity Network Operators or Suppliers. Therefore, we would not expect their commercial decisions on tariff offerings to be materially changed.
- Ofgem also keeps the price cap methodology under review, and changes can be made to the model. The estimated impact may therefore change if the price cap methodology changes.

51. The results of the analysis suggest that there would be a small distributional impact across gas and electricity bills:

- Electricity tariffs would decrease by £0.55 on average (across different payment methods). This is caused by a reduction in DCC charges paid by Electricity Suppliers, which feed through to electricity tariffs. This reduction is partly but not fully offset by an increase in DCC charges paid by Electricity Distributors.
- Gas tariffs would decrease by £1.57 on average. This is because there is no increase in gas tariffs via Gas Transporter (Charging Group g5) who do not pay DCC charges, while Gas Suppliers see a reduction in their DCC charges.
- The overall impact for an average dual fuel consumer across their gas and electricity bills is a reduction of c. £2.12.

52. The overall reduction of c.£2.12 for a dual fuel consumer is likely to be driven by modelling factors. Importantly, it will not result in DCC under-recovering allowed revenue. As explained in paragraph 23 above, Fixed Charges are calculated such that DCC will not under-or over-recover revenues. The drivers of the overall reduction out-turned under the Ofgem price cap model are likely to include:

- The analysis necessarily includes some simplifying assumptions and should therefore be seen as indicative rather than a precise estimate of the impact on the price cap.
- The DCC charges paid by Electricity Distributors are recovered from various customer segments. The impact of the increase in DCC charges for Electricity Distributors may not be evenly distributed across those segments. In particular, the impact may be weighted more towards nondomestic customers. Since the price cap model only applies to domestic customers, the impact shown above may therefore not capture the full distributional impact of the reweighting.
- There are differences between the average consumption assumed in the price cap model and actual consumption.
- 53. The price cap model must necessarily make various assumptions and adjustments to the price cap, and these may interact with the potential cost changes modelled leading to the incidence effects

¹⁶ https://www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/energy-price-cap-default-tariff-policy/energy-price-cap-default-tariff-levels.

 17 Ofgem press release, 23 August 2024 .

observed.¹⁸ As discussed above, the price cap is therefore an upper bound and may not always be binding, meaning that small changes to the price cap level will not necessarily feed through to tariffs.

2.3.2. Alignment with the guiding principles

- 54. This proposal has also been assessed against the guiding principles set out in the RFI. This change is well aligned with those principles:
 - Consistency with other regulated markets, competition law and DCC's licence the approach is consistent with charging methodologies in other regulated sectors where charges aim to reflect the contribution of each user group to cost recovery.¹⁹ It is also in line with DCC's obligations to set charges that are cost-reflective without adversely impacting the roll-out of smart meters or competition in the supply of energy.²⁰ We do not consider that this approach would cause competition issues either within or across core User groups.
 - Delivering stable and transparent charges regularly updating weighting factors would ensure that they reflect prevailing network usage from each User group. While these periodic updates may introduce some variability in charges if there are significant changes in usage across Energy Suppliers and Electricity Distributors over time, the use of multiple years of data to set the weighting factors should help to smooth out variations.
 - Simplicity and practicality of implementation updating the weighting factors would not require any adjustments to the current charging methodology. DCC already has granular data on Service Reference Variant (SRV) volumes and is working on collecting richer data on actual Service Request sizes, which could be used in the future to revise the weighting factors. As this is not a change to the current charging methodology, it will require no change to DCC billing systems and processes.
 - Avoidance of explicit charges for data Fixed Charges recover the costs of delivering data to end-consumers, as opposed to charging for the data itself (which DCC does not own).
 - Considering the impact on all end customers the direct impact of the proposed change is that Energy Suppliers will experience a reduction in their DCC charges, and Electricity Distributors a corresponding increase. However, the total amount of revenues that DCC recovers from Users will remain unchanged, and so will the total DCC costs paid by end-consumers. While there might be some distributional impact across electricity and gas consumers, (as described above), this change would overall improve cost-reflectivity.
 - Drive efficient use of the DCC network, making best use of network capacity, reducing overall DCC costs to energy bill payers the proposed change will bring Fixed Charges paid by core Users in line with prevailing network use. This may create some incentives for more efficient network use, because if a User group can (in aggregate) reduce its network usage, this will reduce the fixed charges paid by that group. This approach may therefore help limit the capacity growth that the DCC network needs to offer, reducing DCC's future costs to the benefit of end consumers.
- 55. The re-weighting approach is also aligned to guidance provided by the Department for Energy Security and Net Zero (DESNZ) in its response to the Charging Request for Information published earlier this year which noted that DCC fixed costs should continue to be recovered from core User categories (energy suppliers and Electricity Network Operators). Further detail on DESNZ's response it set out in the following chapter.

²⁰ See Condition 18 "Charging Methodology for Service Charges" in SEC Section C.

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¹⁸ This includes, for instance, the existence of a small uplift in the price to leave room for competition among suppliers below the price cap (a 'headroom allowance') as well as recent change to the price cap methodology aligning the nil consumption price cap level for prepayment (PPM) and Direct Debit (DD) customers.

¹⁹ Typically, charges in other regulated sectors are determined by dividing Allowed Revenue by Volumes. Such arrangements allow users to influence the amount of charges they pay by reducing their consumption level (or optimising the size of the service need, e.g. reducing fuse size or voltage level in the electricity sector).

56. Views are sought on the potential impact that a reweighting of Fixed Charges could have and the extent to which this might lead to significant changes for some end-consumer segments. DCC is committed to working closely with stakeholders to deliver an outcome that meets our obligations but does not create barriers to use of the DCC network.

2.4. Consultation questions on updating Fixed Charge weightings

Q1	Do you agree (yes/no) with the rationale and scope for updating the weighting factors used to apply charges for core Users (Energy Suppliers and Electricity Network Operators)? Please provide your rationale.
Q2	Would re-weighting Fixed Charges impact how Energy Suppliers and Electricity Network Operators use the DCC network? If so, do you have any suggestions on how else DCC could continue to support efficient use of the DCC network? Please provide your rationale and include evidence to support this where possible.
Q3	Do you agree (yes/no) with the assessment of the distributional impact for end consumers of re- weighting Fixed Charges? Please your rationale and include evidence to support this where possible.

3. Introducing charges for Other Users

57. This chapter sets out the rationale behind the current charging arrangements that apply to Other Users and explores the case for, and impact of in, introducing a usage-based charge for this User role.

3.1. Current approach

- 58. Unlike core Users, Other Users currently are not charged for use of the DCC network. The Fixed Charges described in the previous chapter do not apply to Other Users. This decision was made by Government at the start of the smart meter roll-out to promote innovative use cases.
- 59. In addition to Fixed Charges, DCC has the option to levy 'Explicit Charges', i.e. charges for a range of services whose costs are generally driven by volume, as set out in DCC's charging statement.²¹
- 60. DCC has not, to date, elected to apply an Explicit Charge for communication services (i.e. charging for the use of the DCC network) for any of the existing User roles, although it has the power to do so. The decision to set a nil charge was taken a decade ago in 2014, as it was considered to be the most economic and efficient approach at the time.²² The rationale for this approach was as follows:
 - the total cost of Service Requests was approximately 0.2% of total External Costs;²³
 - it would be less costly and complex for the billing system to recover this cost through Fixed Charges;
 - invoices would be simpler with less reconciliation activity for DCC's customers; and
 - there would be greater cost certainty in advance of each Regulatory Year.

3.2. Rationale and scope for change

- 61. Over the past two years DCC has seen a significant rise in traffic from Other User roles, as well as increasing interest from organisations seeking to use the DCC network. Since the beginning of RY 2023/24, Other Users' SRV volumes have accounted for 7% of total traffic, peaking at up to 10% of all demand in some months.
- 62. While the absence of charges for Other Users may have helped promote innovation in the smart metering service space, respondents to the Charging RFI published earlier this year confirmed that it was now reasonable to explore how the charging methodology for Other Users could evolve. In particular, traffic on the DCC network drives costs for DCC (explored further in section 3.2.1), meaning that the current charging methodology for Other Users is not cost-reflective. Sending a reasonable pricing signal to Other Users (at least over a certain threshold of usage) would make DCC's charging methodology more in line with its Charging Objectives and help drive more efficient use of the network as well as reducing costs to energy bill payers.
- 63. A usage-based charge for Other Users, reflecting the marginal costs that Other User traffic places on the network has therefore been considered. This potential charge has also been developed in line with guidance provided by DESNZ in its response to the Charging RFI:

"We believe that a starting point for understanding how fixed costs should be recovered should be to <u>consider the principles of Ramsey Pricing</u>, whereby fixed costs are recovered from the least elastic <u>demands</u>. This has the effect of allowing for the recovery of those costs in a manner that least distorts the relevant competitive markets.

²¹ Charging Statement for RY 24/25, see section 5 and section 7.2.5

 ²² See paragraph 42 of DCC's latest charging statement: https://www.smartdcc.co.uk/media/u31la12l/cs-ry2425-issue-10.pdf
 ²³ As presented further below in this chapter, recent work shows that this share has significantly increased.

[...] we are of the view that <u>Other Users are likely to be a more elastic user base than energy suppliers</u> <u>or networks</u>, since all consumers must have an energy supplier and need to connect to a network, but do not necessarily need the services of an Other User. [...]

This does not mean that we are entirely against levying charges on Other Users in principle. Where the incremental actions of any Party or DCC User drive the marginal costs of the DCC (including potentially driving up the need for additional capacity) – for example at times of peak usage, then we believe that it would be appropriate to consider a charging methodology that reflects this cost driver. <u>Any such charges should however be reflective of the marginal costs imputed by the marginal actions of the user or users and should not be used as a mechanism to recover fixed costs.</u>"

64. The remainder of this chapter sets out a proposed approach to setting a usage-based charge (i.e. a 'unit rate' charged per service request) based on an analysis of DCC's costs, as well as the wider design of the charge. Careful consideration will need to be given to the design, to ensure that small-scale innovators continue to be supported, and to minimise the impact on overall benefits for end-consumers. For the avoidance of doubt, DESNZ has not endorsed or supported any proposed changes to DCC's charging methodology at this stage. DCC remains committed to working closely with both the Department and Ofgem to ensure any potential decisions following this consultation are aligned to policy priorities.

3.2.1. Estimating how DCC's costs change with network demand

- 65. Unlike other regulated utilities, DCC does not own or maintain the communications infrastructure used by smart meters in GB. Instead, DCC procures the required infrastructure and capacity from a variety of telecommunications and IT service providers through long-term contracts. To date, DCC holds 23 of those contracts, each of which has specific technology specifications, capacity requirements and pricing conditions.
- 66. To set a cost-reflective unit rate for Other User charges, this unit rate should be based on the additional cost incurred by DCC to transmit an additional service request, i.e. DCC's 'marginal cost'.
- 67. While identifying a precise marginal cost is challenging due to the complex and varied nature of DCC's contracts with Service Providers, DCC has conducted a contract-by-contract review to distinguish costs that are fixed from those that vary-directly or indirectly-with the level of traffic.
- 68. As further detailed in Appendix 4, this analysis shows that while some operational costs remain fixed and do not change (at least in the short- to medium-term), as more traffic is placed on the network, some costs are either entirely volume-driven (i.e. immediately increase as the number of Service Requests increase, and vice versa), or increase in a stepped way, i.e. they increase at certain volume thresholds, e.g. when available capacity is used up and needs to be increased.
- 69. Based on this analysis, DCC tested a range of different approaches to estimating DCC's marginal cost, including approaches that represent estimated minimum and maximum for the marginal cost per SRV, as set out below. These approaches are ordered from most conservative (i.e. those that give the lowest estimate of marginal cost) to least conservative:
 - Approach 1 Short-run incremental cost (SRIC) using contractually volume-driven costs. This approach consists in first identifying costs within DCC's contracts that are directly volume driven, giving c.£30m in RY 2024/25. These costs are then divided by the total number of Service Requests on the DCC network in the same Regulatory Year (29 bn). This approach provides an estimated minimum for the marginal cost it is likely to be highly conservative as it only captures costs incurred in the short-term due to variations in demand and therefore does not reflect the costs associated with network expansion as Service Request volumes grow. The marginal cost derived using this method is £0.001/SRV.
 - Approach 2 Long-run incremental cost (LRIC) using contractually volume-driven costs and costs that vary with step changes in volume. Based on current contract information, approximately £100m of DCC's operational costs vary either immediately or with step changes in volume. Dividing

this figure by the total number of Service Requests gives a marginal cost estimate of £0.003/SRV based on data for RY 2024/25.

- Approach 3 LRIC bottom-up approach. This approach considers how costs are likely to vary with demand from a forward-looking perspective. DCC's bottom-up analysis based on existing contractual arrangements suggests that a 10% increase in Service Request volumes may result in an approximate 3% to 6% increase in operational costs, leading to a marginal cost range of £0.003/SRV - £0.006/SRV for RY 2024/25.²⁴
- Approach 4 Fully Allocated Cost. This approach involves dividing DCC's total operational costs by the total number of Service Requests, giving an estimated maximum for the marginal cost of £0.01/SRV for RY 2024/25. While this method is not appropriate for charging Other Users, since it includes fixed costs, it offers a useful benchmark for the absolute upper bound unit rate that DCC could, in principle, charge Users to recover its operational costs on a fully usage-driven basis.

70. Figure 2 below summarises the range of marginal cost proxies resulting from this analysis.

Estimated minimum (£0.001 per SRV)			Estimated maximum (£0.01 per SRV)
1. Short run incremental cost (SRIC)	2. LRIC: cost categorisation approach	3. LRIC: bottom-up approach	4. Fully Allocated Cost approach
The estimated minimum described on the previous slide is a viable proxy for the marginal cost. However, it is highly conservative.	Approx. £100m of DCC's costs vary either immediately or with step changes in volume. Dividing this figure by DCC's demand forecast for RY24/25 gives:	Considers how costs are likely to vary with demand from a forward-looking perspective. DCC's bottom-up analysis suggests that a 10% increase in Service Request volumes may lead to a marginal cost range of:	Considers DCC's total operational costs divided by total number of service requests.
£0.001 per SRV	£0.003 per SRV	£0.003 - £0.006 per SRV	£0.01 per SRV

Figure 2: range of marginal cost

71. Using SRIC to set the unit rate could be the most transparent approach initially, as it does not require any assumptions on stepped costs. It is also the simplest approach to implement from a data collection and billing perspective and represents the lowest cost burden.

3.2.2. Designing Other User usage-based charges

72. In this section, further design features for a usage-based charge are set out, addressing:

- whether charges should differentiate based on Service Request characteristics;
- whether a materiality threshold should apply; and
- the design of a mechanism to offset Other User charges from the Fixed Charges paid by core Users.

Differentiating charges based on Service Request characteristics

- 73. There are over 130 different Service Requests that can be sent over the DCC network. Service Requests can further differ based on characteristics such as message size, mode of operation (scheduled vs on-demand) and time of transmission.
- 74. A simple approach to setting a usage-based charge would involve setting a single unit rate for all Service Request types, reflecting the marginal cost estimated above. This charge would apply to all types of Service Requests, regardless of when the message is sent, or how large the message is (e.g.

²⁴ This is based on a static analysis. The results of this sensitivity are therefore indicative and depend on various working assumptions that have not been detailed here. Further modelling work would be required to use this estimate for charging purposes.

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in terms of Kilobytes). However, a more cost-reflective approach would involve setting a more granular schedule of charges considering a variety of Service Request characteristics.

75. DCC's review of contracts found there was limited differentiation of costs across different types of Service Requests. Furthermore, granular charges would involve a substantial data collection burden, implementation complexity and lack of transparency for Users (as reflected in several RFI responses). There could, however, be merit in exploring a differentiation of charges based on the mode of operation (scheduled vs on-demand messages) to encourage efficient network use and, in turn, keep costs down in the long-term. This is considered further below.

Type of Service Requests: scheduled vs on-demand

- 76. DCC could distinguish between scheduled and on-demand traffic, whereby scheduled Service Requests would attract a lower charge relative to On-demand Service Requests. The reasoning is that scheduled traffic can be processed at off-peak times, avoiding capacity constraints and limiting costs associated with increasing network capacity. This approach would enhance cost-reflectivity and encourage Other Users to send scheduled messages whenever possible.
- 77. While DCC's marginal cost analysis found that message-based costs are not limited to on-demand messages, we consider that encouraging Other Users to send scheduled messages (as far as practicable) would be beneficial from a network management perspective and provide long-term benefits to end-consumers. In practice, this could be reflected in the charging structure, taking for example the form of a discount on the unit cost.
- 78. This approach, of charging less for scheduled messages, should deliver similar outcomes to a 'Time of Use' charging approach, where messages sent at peak times face higher charges. However, this approach is more practical and easier to implement. A Time of Use approach would require defining peak/off-peak periods and may need to have the flexibility to be updated periodically (potentially within Regulatory Period) to reflect changes in traffic patterns. The distinction between scheduled and on-demand messages would also be more transparent for Users.

A materiality threshold

- 79. A majority of RFI respondents were in favour of setting a materiality threshold for Other User charges, setting a threshold below which Users would not pay charges. However, views diverged on how the materiality threshold should be defined and the level of the threshold, to avoid market distortions and disrupt nascent business models and innovative use cases, which might face both cost and administrative barriers.²⁵
- 80. In line with the marginal cost-based approach set out above, a materiality threshold could be introduced based on usage (defined by the number of Service Requests sent per year). The threshold would be set sufficiently high to allow small entrants to test and scale their smart metering services using the DCC network.
- 81. DCC currently has 8 Other Users using its network, a number of whom also act as intermediaries for a range of other organisations seeking to extract benefit from the smart metering network. There are a further 150 Other SEC Parties, some of whom are also seeking to onboard as DCC Other Users.²⁶ Based on DCC's analysis of Other User usage observed since the start of RY 2023/24:
 - A threshold of 25 million Service Requests p.a. would mean that the top three Other Users would face charges.
 - A threshold of 10 million Service Requests p.a. would capture the top five Other Users.

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• A threshold of 1 million p.a. would capture the top six Other Users.

 ²⁵ See <u>Summary of RFI responses</u>, section 2.6 'Questions on setting a materiality threshold'
 ²⁶ <u>Current SEC Parties - Smart Energy Code</u> (2024).

- 82. Based on this usage distribution, setting the threshold at 10 million Service Requests per annum could be a reasonable threshold. This threshold would reflect the relative size and maturity of existing players in the market, while avoiding putting unnecessary financial burden on smaller players. Given the dynamic nature of the market, the materiality threshold could be periodically reassessed and adjusted in the future as Other User traffic levels evolve, ensuring that the charges remain aligned with market conditions.
- 83. To avoid any cliff-edge changes in charges at the materiality threshold, where User behaviour might be distorted, there would be no retrospective charge for volumes sitting below the threshold once the threshold is passed by an Other User. That is, charges would only apply to Service Requests above the threshold.
- 84. Other Users could be invoiced by DCC on a monthly/quarterly basis based on actual usage in the previous month/quarter.
- 85. Views on this proposal are sought in Section 3.4.

Adjustment mechanism to ensure revenue recovery

- 86. Currently, DCC recovers its allowed revenues from Fixed Charges paid by Energy Suppliers and Network Operators. Should the charging arrangements set out above for Other Users be introduced, a mechanism would need to be put in place to ensure that DCC does not over-recover its allowed revenues, and in turn ensures that end-consumers are not charged twice for use of the DCC network.
- 87. On that basis Other User revenues could be offset against allowed revenues allocated to Energy Suppliers and DNOs, thereby reducing the amount of costs recovered from end customers through Fixed Charges, as set out in Figure 3 below.



Figure 3: offsetting Other User revenues from Fixed Charges paid by Core Users

- 88. Since the total charges paid by Other Users will depend on usage and cannot be predicted with certainty in advance, this will require an ex-post 'true-up' mechanism whereby Fixed Charges for an upcoming Regulatory Year are initially calculated based on projected Other User traffic for that year. Then, after the year has passed and Other User charges paid during the year are known, the true-up would re-calculate Fixed Charges and correct any discrepancy in charges in the following year.
- 89. Such an approach would inevitably result in some revenue volatility, as DCC could either overrecover (if DCC's forecasts fall short of actual Other User traffic) or under-recover (if DCC's forecasts exceed actual Other User traffic) in any given year.
- 90. An alternative approach would be to offset Other User revenues with a one-year lag, i.e. Other User charges paid in RY 2024/25 would be offset against allowed revenues for RY 2025/26 when setting Fixed Charges for RY2025/26. This mechanism could be incorporated into DCC's existing charging

methodology via the 'correction factor,' which already ensures that any differences between allowed and actual revenues are adjusted for DCC Users in the following regulatory year. However, under a lagged-approach, DCC's allowed revenues from Fixed Charges would not reflect Other User contributions in any given year. As Other User traffic grows, this might lead to a situation where DCC over-recovers against its ex-ante allowed revenues in any given year.

91. Taking all of the above into account, a lagged approach is likely to be most feasible, while Other User traffic is still a relatively small proportion of overall DCC total traffic. Beyond this threshold, DCC would implement an ex-post true up approach to mitigate the risk of material year-on-year over-recovery and adjust annual charges in a way that more closely aligns with actual network usage in any given year.

3.3. Impact assessment

- 92. In line with the guiding principles of this review, introducing charges for Other Users based on marginal costs would make DCC's charging arrangements more cost reflective. At the same time, the materiality threshold would provide scope for smaller-scale innovators to access the network.
- 93. After evaluating the various marginal-cost-based approaches outlined above against the guiding principles, a conservative approach is likely to be most appropriate, at least initially.
- 94. An illustrative example charge model for Other Users with different usage levels are set out below and based on the following charges:
 - £0.001/SRV for on-demand Service Requests or for all Service Requests (option 2 in Figure 2 for illustrative purposes).
 - £0.0005/SRV for scheduled Service Requests (representing a 50% discount).
 - A materiality threshold of 10 million Service Requests per year.

Table 4: Illustrative charges for Other Users with different usage profiles

	Usage Profile	Resulting Annual Charge (no differentiation between scheduled/on- demand messages)	Resulting Annual Charge (with differentiation between scheduled/on- demand messages)
Low usage user, no message scheduling	1 million SRVs per year, all on-demand	£0	£Û
Medium usage use, no message scheduling	8 million SRVs per year, all on-demand	£0	£0
High usage user, no message scheduling	15 million SRVs per year, all on-demand	£5,000	£5,000
High usage user, some message scheduling	15 million SRVs per year, half on-demand, half scheduled	£5,000	£3,750
High usage user, fully scheduled	15 million SRVs per year, all scheduled	£5,000	£2,500
Very high usage user, some message scheduling	500 million SRVs per year, half on demand, half scheduled	£490k	368k

- 95. The introduction of Other User Charges has been assessed against the guiding principles set out in the RFI.
 - Consistency of the approach with other regulated markets, competition law and DCC's Licence the introduction of charges for Other Users aligns with practices in other regulated markets, where all the beneficiaries of a service contribute to the costs of service delivery and where charges are commonly usage-based to some extent (including in the energy, water and telecommunications sectors).
 - Delivering stable and transparent charges charges for each User will be calculated by multiplying the unit rate by the number of Service Requests, ensuring transparency. While the revenue adjustment mechanism may create some unpredictability for core Users' Fixed Charges, we expect these adjustments to be small, at least initially.

- Simplicity and practicality of implementation introducing a usage-based charge for Other Users would be relatively straightforward and transparent. Using SRIC to set the unit rate would be the most simple and transparent approach, as it does not require any assumptions on costs that are partly variable (e.g. stepped costs). It is also relatively straightforward to implement from a data collection and billing perspective. The DCC billing system includes functionality to enable billing of Other Users, and the use of a true- up / correction factor is part of the existing billing methodology.
- Considering the impact on all end consumers introducing charges for Other Users would lower the proportion of DCC costs recovered through Fixed Charges on core Users, which are ultimately passed on to end consumers. Other Users, in turn, may pass these costs onto their own customers and set charges reflecting the marginal impact their services impose on the network. This would result in some redistribution of costs from energy consumers towards end-customers of Other User products, representing a more cost-reflective allocation of the benefits received by those customers.
- Avoidance of explicit charges for data this approach meets the principle that DCC charges should not be based on an explicit charge for data instead, charges should reflect the marginal cost associated with delivering that data to end consumers.
- Accounting for distributional and competitive impacts the proposed charging structure is designed to avoid disproportionately burdening smaller users. Introducing charges for Other Users would encourage more efficient use of the DCC network, while the use of a materiality threshold would help minimise distortions and barriers to DCC usage for small-scale innovators. Furthermore, selecting a more conservative estimate of DCC's marginal cost to set the unit rate would reduce the risk that charges are set at a level that would constitute a barrier to entry.
- 96. Given the focus on identifying marginal cost and mitigating measures to support nascent users of the DCC network, the proposed change to Other User charging also aligns with the guidance provided by DESNZ in its RFI submission, detailed earlier in this chapter.
- 97. Views are sought on the impacts of introducing usage-based charges on Other User and whether the design of the charges could be adjusted to minimise any adverse impacts.

3.4. Consultation questions on new Other User charges

Q4	Do you agree (yes/no) with the rationale and scope for introducing charges for Other Users? Please provide your rationale.
Q5	Do you agree (yes/no) that using a Short Run Incremental Cost (SRIC) approach is the most appropriate, at this stage, for calculating a unit rate to charge Other Users? Please provide your rationale.
Q6	Do you agree (yes/no) that Other User charges should be differentiated based on scheduled and on demand messages? Please provide your rationale.
Q7	Do you agree (yes/no) that Other User charges should be used to reduce Core User Fixed charges, and with the proposed approach for doing so? Please provide your rationale.
Q8	Do you agree (yes/no) with the assessment of the impact of introducing variable charges for Other Users? Do you have any concerns around the impact of this change, and if so, can you provide views on how it can be mitigated? Please provide reasons for your response and include evidence to support this where possible.

4. Smart Meter Energy Data Repository

- 98. In the RFI published earlier this year details were provided about the Smart Meter Energy Data Repository (SMEDR) initiative being pursued by Government. The RFI noted the potential impact a SMEDR could have on usage of the DCC network and sought views on the merits of introducing a data repository. There was broad support from respondents for a SMEDR in principle as it was envisaged this could support DCC in enabling more efficient network usage, cost reduction as well as supporting a variety of decarbonisation use cases.
- 99. The case for a SMEDR is still being assessed by DESNZ. The cost analysis undertaken as part of this charging review will support Government in its assessment of the costs and benefits of such an initiative. It is important that the changes to charging proposed in this consultation are sufficiently dynamic to accommodate the impact of a SMEDR were it to be introduced. The proposed changes, e.g. the Unit Rate charge proposal, could also inform a charging model for usage of a SMEDR (were that deemed desirable).
- 100. Views are sought on the impact of a SMEDR within the context of this consultation.

4.1. Consultation question on the potential interaction with a SMEDR



Based on the changes to charging proposed in this consultation do you have any further reflections on the potential interaction with a SMEDR?

5. Conclusion and next steps

5.1. Conclusion

- 101. This consultation seeks to gather feedback on the proposed changes to DCC's charging methodology outlined in this document, which include:
 - Updating the weighting factors used to calculate the Fixed Charges paid by core Users (Energy Suppliers and Network Operators) to reflect prevailing network use; and
 - Introducing usage-based charges for Other Users, where usage is above a materiality threshold.
- 102. These proposed changes have been carefully assessed against the guiding principles for this review, as illustrated in Table 5 below. Building on engagement to date, DCC is keen to hear stakeholder perspectives to ensure that any changes, if implemented, are in line with regulatory best practice, transparent and clearly understood.

Table 5: Impact assessment summary

	Updating Weighting Factors for Fixed Charges paid by core users	Introducing usage-based charges for Other Users
Be consistent with approaches taken in other regulated markets and aligned with competition law and the DCC licence	Proposed change meets DCC's obligations; each user group contributes to cost recovery in line with prevailing network use. Practices in other regulated market follow the same principles.	The introduction of charges for Other Users aligns with practices in other regulated markets, where all the beneficiaries of a service contribute to the costs of service delivery, and where charges are commonly usage-based to some extent (including in the energy, water and telecommunications sectors).
Deliver stable and transparent charges	Regularly updating weighting factors would ensure that they reflect prevailing network usage coming from each User group. While these periodic updates may introduce some variability, the use of multiple years of data to set the weighting factors should help to smooth out variations.	Charges for each user will be calculated by multiplying the unit rate by the number of service requests, ensuring transparency. While the revenue adjustment mechanism may create some unpredictability for Core Users' Fixed Charges, we expect these adjustments to be small, at least initially.
Be simple and practical to implement	Updating the weighting factors would not require any adjustments to the current charging methodology or DCC's billing systems. DCC already has granular data on SRV volumes and is working on collecting richer data on actual message sizes, which could be used in the future to revise the weighting factors.	Introducing a usage-based charge for Other Users would be relatively straightforward and transparent. It is also relatively straightforward to implement from a data collection and billing perspective: The DCC billing system includes functionality to enable billing of Other Users, and the use of a true- up / correction factor is part of the existing billing methodology.
Consider the impact on all end energy consumers	Same amount of costs are recovered from end customers. Greater cost reflectivity would mean that more costs are recovered from electricity customers than from gas customers.	Introducing charges for Other Users would lower the proportion of DCC costs recovered through Fixed Charges on core users, which are ultimately passed on to end customers. This would result in some redistribution of costs from energy customers towards end- customers of Other User products. In our view this would be a more cost-reflective allocation of the benefits received by those customers.
Drive efficient use of the DCC network, making best use of network capacity, reducing overall DCC costs to energy bill payers	Creates an incentive at the aggregate level to use the network more efficiently and limit network growth in the long run.	Introducing charges for Other Users will help drive efficient use, regardless of how the charge is set.

Support small scale innovators and not for profits, allowing them to cost effectively access to DCC network	Other Users do not contribute to fixed cost recovery.	The proposed charging structure is designed to avoid disproportionately burdening smaller users. A materiality threshold would help minimise distortions and barriers to DCC usage for small-scale innovators. Selecting a more conservative estimate of DCC's marginal cost to set the unit rate would reduce the risk that charges are set at a level that would constitute a barrier to entry.
Not be based on an explicit charge for data	DCC charges reflect costs of de	elivering data to end customers

5.2. Next steps

- 103. This consultation will run for a period of eight weeks and will be supported by industry engagement led by SECAS. Responses to the consultation will be shared with both DESNZ and Ofgem. DCC and Frontier Economics will carefully assess the responses received and work with Government and Ofgem to determine what, if any, changes to charging should be progressed, over what time period, and through what vehicle (e.g. existing DCC Licence or SEC Modification DP218).
- 104. If changes are introduced, changes could be implemented individually or combined to deliver a more holistic review of the charging methodology.
- 105. The earliest that any changes to charging could be introduced would be for Regulatory Year 2026/27. DCC and SECAS will ensure industry is regularly briefed on any developments well in advance of that date.
- 106. Responses to the questions in this consultation are due by 3 February 2025. A full list of the questions detailed in this RFI is set out in Appendix 1 of this consultation document. Please provide rationale to support your responses. Responses should be submitted in electronic format and emailed to <u>consultations@smartdcc.co.uk</u>.
- 107. If you want your response in whole or in part to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response. All non-confidential responses to this consultation will be published on the DCC website.
- 108. Please do not hesitate to contact regulation@smartdcc.onmicrosoft.com if you have any questions about the content of this RFI.

Appendix 1: Full list of consultation questions

Q1	Do you agree (yes/no) with the rationale and scope for updating the weighting factors used to apply charges for core Users (Energy Suppliers and Electricity Network Operators)? Please provide your rationale.
Q2	Would re-weighting Fixed Charges impact how Energy Suppliers and Electricity Network Operators use the DCC network? If so, do you have any suggestions on how else DCC could continue to support efficient use of the DCC network? Please provide your rationale and include evidence to support this where possible.
Q3	Do you agree (yes/no) with the assessment of the distributional impact for end consumers of re- weighting Fixed Charges? Please provide reasons for your response and include evidence to support this where possible.
Q4	Do you agree (yes/no) with the rationale and scope for introducing charges for Other Users? Please provide your rationale.
Q5	Do you agree (yes/no) that using a Short Run Incremental Cost (SRIC) approach is the most appropriate, at this stage, for calculating a unit rate to charge Other Users? Please provide your rationale.
Q6	Do you agree (yes/no) that Other User charges should be differentiated based on scheduled and on demand messages? Please provide your rationale.
Q7	Do you agree (yes/no) that Other User charges should be used to reduce Core User Fixed charges, and with the proposed approach for doing so? Please provide your rationale.
Q8	Do you agree (yes/no) with the assessment of the impact of introducing variable charges for Other Users? Do you have any concerns around the impact of this change, and if so, can you provide views on how it can be mitigated? Please provide reasons for your response and include evidence to support this where possible.
Q9	Based on the changes to charging proposed in this consultation do you have any further reflections on the potential interaction with a SMEDR?

Appendix 2: Glossary

Acronym/Term	Full Term
Authority	This is Ofgem, the regulatory Authority
Charging Group	A category assigned by DCC to certain DCC User Roles that are eligible to recover DCC costs
DCC	The Data Communications Company
DECC	Department of Energy and Climate Change
DESNZ	The Department for Energy Security and Net Zero
DP	Draft Proposal – the initial form of a modification under the SEC Section D Modification Process
DUoS	Distribution Use of System
Energy Supplier	A DCC User Category including the ES, GS and IS DCC User Roles
ES	Electricity Supplier. A DCC User Role
GS	Gas Supplier. A DCC User Role.
IS	Import Supplier. A DCC User Role.
ED	Electricity Distributor. A DCC User Role.
GT	Gas Transporter. A DCC User Role.
LRIC	Long-run incremental cost
MDR	Meter Data Retriever. A DCC User Role.
MPAN	Meter Point Administration Number. A number used to uniquely identify electricity supply points in Great Britain
Network Operator	A DCC User Category including the ED and GT DCC User Roles.
NTM	Network Traffic Management
Other Parties	Refers to DCC User Roles (MDR, OU, RSA) sitting outside of the Energy Supplier and Network Operator User Categories.
OU	Other User. A DCC User Role.
RIIO	Revenue=Incentives+Innovation+Outputs

RSA	Registered Supplier Agent. A DCC User Role.
RY	Regulatory Year. The year used in DCC's Charging Statement and Charging Methodology.
SEC	Smart Energy Code. A dual fuel energy code governing the relationship between the DCC and DCC Users.
SECAS	Smart Energy Code Administrator and Secretariat
SECCo	Smart Energy Code Company
SMEDR	Smart Meter Energy Data Repository. An innovation programme run by DESNZ.
SMETS	Smart Metering Equipment Technical Specifications. The standard to which meters must conform to be eligible to be installed on the smart meter network.
SR	Service Request. A command issued by a DCC User to a device or the DCC.
SRIC	Short-run incremental cost
SRV	Service Reference Variant
User Category	A grouping of DCC Users based on common characteristics, e.g. supply of energy or distribution of energy.
User Roles	A SEC Party that has on-boarded to use the DCC network for a specific purpose, e.g. one of the ES, GS, IS, ED, GT, MDR, RSA or OU roles.

Appendix 3: DCC Network Traffic Management

109. It is not the primary aim of the DCC charging review to use changes to DCC charging policy solely as a means to support network traffic management. Nevertheless, as detailed in the main body of this consultation, potential changes to charging policy can be used to signal more efficient use of the DCC network. The DCC's Network Traffic Management team have therefore been closely consulted over the potential changes detailed in this consultation to ensure alignment with DCC's wider Network Traffic Management strategy. DCC's wider Network Traffic Management strategy is referenced in this consultation document – a headline overview of the strategy is detailed below for additional context.

What is Network Traffic Management?

- 110. In response to significant growth in message volume carried over the smart metering network and changing customer expectations, DCC has set out a single strategic approach to Network Traffic Management.
- 111. Network traffic growth is driven by several factors. Growth in the number of devices on the network from the continued smart meter roll-out, completion of the SMETS1 migrations, and increased usage of the network from new use cases that include growing use by DNOs for better awareness of power usage patterns, DCC Other Users, and Market Wide Half Hourly Settlement.

What is DCC doing?

- 112. DCC's NTM Portfolio activity is focused on the intelligent use of capacity, to minimise investment while optimising performance. Initiatives being pursued under NTM are not solely technical. DCC is proactively identifying opportunities within the customer, operational, process, regulatory and commercial areas of the business. DCC is also strengthening the maturity of its new operating model to improve engagement and insights from its customers, industry and programme change.
- 113. There are currently 15 initiatives identified and tracked by DCC's NTM portfolio activity, in four different stages that are being progressed dependent on economic and service viability:
 - Stage 1: Candidate and Feasibility
 - Stage 2: Requirements and Solution
 - Stage 3: Implementation
 - Stage 4: Deployed and Value Realisation
- 114. Quarterly updates for these NTM initiatives are provided through the DCC customer committees. In the quarterly sessions, quantitative data is being provided to validate approach. Wider operational changes are also being made:
 - **Demand Forecast Tooling**: Using machine learning and the ingestion of existing usage data to increase efficiency and reduce cycle time of the production of demand forecasting, enhanced through sensitivity analysis and scenario planning.
 - Capacity Management Assurance: this involves a detailed review and gap analysis of future capacity plans and proposed interventions required to deliver DCC's demand forecast, providing DCC and its suppliers with the confidence that robust plans are in place to deliver the required capacity and services dependent upon it.

Appendix 4: Approach to estimating DCC's marginal cost

115. The approach taken to identify a marginal cost for use of the DCC network is detailed below. This approach underpins the proposals in Chapter 3 of this consultation which details options to introduce a unit rate Other User charge.

Categorisation of DCC cost

- 116. The review of DCC costs undertaken to support marginal cost analysis was based primarily on an analysis of DCC Operations costs. DCC Operations costs are a subset of DCC Fixed Charges in line with DCC's Charging Statement. Operations costs capture all the costs associated with operating the DCC network, including costs which vary as the volume of network demand varies. Costs relating to large programmatic activity, Support Functions and Other costs (e.g. gainshare and margin) are out of scope of this analysis.
- 117. Operations costs were in turn analysed at Service provider level and by Service Family e.g. SMETS1, SMETS2 and 4G and focused on data for RY24/25 (i.e. using the DCC latest forecast for 24/25 full year outturn).
- 118. As well as costs which directly vary as the volume of network demand varies, the remainder of the Operations category can also be impacted by the volume of network demand. This category was therefore sub-categorised as follows relative to movements in the volume of network demand:
 - 1) Costs that vary gradually over time / with step changes i.e. Operating Charges paid to DCC network suppliers that typically increase via change requests to manage increased network capacity, amortised over the monthly fixed operating charges paid to DCC network suppliers.
 - 2) Costs incurred in the near-term to allow for network capacity enhancements to manage movements in forecast network demand i.e. Supplier costs to carry out project type work to identify and undertake requirements to increase network capacity, funded by DCC.
 - 3) Costs that vary directly with the volume of network demand i.e. variable Operating Charges paid to DCC network suppliers, on a 'volume multiplied by rate' basis, where volume refers to the volume of demand of Service Requests, or, as a result of Service Requests.
 - 4) Costs that do not change i.e. Operating Charges paid to DCC network suppliers which do not change as the volume of network demand changes.
- 119. Working from the above categorisation, different approaches can be taken to assess the Unit Cost per Service Request.

Approach 1 : Short-run incremental cost (SRIC)

- 120. This approach takes the DCC Operational Costs as per category 3 i.e. costs that vary directly with the volume of network demand. From this a blended unit rate per SRV can be derived by aggregating the total Operational costs under this category and dividing by the total number of SRVs on the DCC network. For RY 24/25 this equates to £0.001 per SRV, where the volume of SRVs is forecasted to out-turn as 29bn.
- 121. Given that DCC Operational costs in categories 1, 2 and 3 above can all be impacted by the volume of network demand, taking category 3 alone is a conservative approach, and derives a lower bound of the unit cost per SRV.

Approach 2 : Long-run incremental cost (LRIC) using volume driven costs and costs that vary with step changes

122. This approach takes the DCC Operational Costs as per category 1 and 3 i.e. costs that vary with step changes and directly with the volume of network demand. From this a blended unit rate per SRV can be derived by aggregating the total Operational costs under these categories and dividing by the total number of SRVs on the DCC network. For RY 24/25 this equates to £0.003 per SRV, where the volume of SRVs is forecasted to out-turn as 29bn.

Approach 3 : Long-run incremental cost (LRIC)

- 123. To assess the long run incremental cost of demand on the DCC network, DCC considered hypothetical scenarios where network demand increases compared to current levels of demand, and the associated cost impact on a network supplier-by-supplier basis, as per the above 4 sub-categories, through the lens of DCC Service Families.
- 124. The hypothetical scenario sets out how each contractual cost element would be impacted by a 10% increase in network demand. For RY 24/25 the modelling provided an estimated cost range of 3-6% increase in Operational cost investment as a result a hypothetical 10% increase in demand, equating to a £0.003-£0.006 per SRV.
- 125. The range provided here reflects the high level of uncertainty associated with modelling the cost of increases in network demand compared to current levels.
- 126. The approach taken was highly assumptive and hence the suitability of this approach needs to be considered in conjunction with the following considerations, which can be largely captured by the 'static' nature of the analysis. The hypothetical scenarios are based on a 'snapshot' in time with some significant changes expected in the future, not limited to :
 - Forecasted volume of network demand and type of demand i.e. 'mix' of demand.
 - The current and future level of network utilisation.
 - The roadmap for network and technological development and associated structural change to supplier contracts.

Approach 4 : Fully Allocated Cost

- 127. This approach takes all the DCC Operational costs categorised above and derives a "blended" unit rate per SRV by dividing the aggregate Total Operational costs by the total number of SRVs on the DCC network. For RY 24/25 this equates to £0.01 per SRV, where the volume of SRVs is forecasted to outturn as 29bn.
- 128. This approach is not appropriate for establishing a unit rate for Charging Other Users since it includes fixed costs. It does, however, provide an upper bound for assessing the unit cost per SRV.