

All energy consumers, electricity generators, electricity distribution network operators, electricity suppliers, code panels, industry bodies and other interested parties

Email: FutureChargingandAccess@ofgem.gov.uk

Date: 1 November 2021

Dear stakeholder,

Consultation to descope the wide-ranging review of Distribution Use of System (DUoS) charges from the current Electricity Network Access and Forward Looking Charges Significant Code Review (SCR) and take it forward under a dedicated SCR with a revised timescale

In December 2018, we launched the Access and Forward-Looking Charges SCR¹ ('Access SCR') to introduce reforms that would facilitate more efficient use of and investment into future electricity networks, protecting consumers today and in the future while enabling net-zero at lowest cost.

In June this year, we issued a consultation on our minded-to positions covering a subset of the original Access SCR scope²: reduced up-front distribution network **connection charges**; improved definition and choice of **network access rights**; and changes to transmission **charges for small distributed generators**. The consultation closed on 25 August and we are in the process of working toward a final decision on our minded-to positions. We expect to issue a direction on these areas in Q1 2022.

Work on forward looking distribution network charges, also known as Distribution Use of System (DUoS) charges, was paused in light of ongoing work to develop Ofgem's 2021/22

¹ [Electricity Network Access and Forward-Looking Charging Review - Significant Code Review launch and wider decision | Ofgem](#)

² The original Access SCR scope outlined 4 areas of review: (1) definition and choice of access rights (2) wide ranging review of distribution network charges (3) review of the distribution connection boundary (4) a focused review on transmission network charges

forward work programme.³ This set out a number of strategic change programmes that would strongly influence the role of that network charges are expected to play in the energy system of the future. This includes Full Chain Flexibility which aims to enable a secure, affordable, net zero system where all connected resources can contribute their full efficient potential to meeting system needs, by flexibly responding to available energy and network resources. This initiative is currently taking shape and will inform our ongoing work on DUoS .

This letter sets out our intention to take forward a wide-ranging review of DUoS under a separate vehicle from the original Access SCR. Procedurally, this entails descopeing DUoS from the Access SCR and launching a new, dedicated SCR which would retain the original 'wide ranging review' scope of DUoS reforms previously set out.⁴

This will enable delivery of the scope of the original Electricity Network Access and Forward-Looking Charges SCR via a phased approach involving 2 discrete directions:

- **Phase 1:** Connection boundary and access rights (2023 implementation), and focused review of transmission network charges (where progression is subject to our Call for Evidence and relevant next steps which we expect to announce over the winter)⁵
- **Phase 2:** Wide ranging review of DUoS (post-2023 implementation)

Why are we consulting?

We believe it is necessary to descope DUoS from the Access SCR and launch a new, dedicated SCR for several reasons:

- 1) We remain committed to issuing a direction on our connection boundary and access rights proposals in time for implementation by 2023. We think that aligning implementation with the start of RIIO-ED2 will minimise the scale of any uncertainty mechanisms or reopeners that may be required. This would also reduce uncertainty for industry more generally and facilitate better investment decisions. We also want to realise the benefits of as much of our access reforms, as soon as practicably possible.
- 2) DUoS reforms remain necessary and critical to deliver further benefits to consumers and support decarbonisation at lowest cost. We need a vehicle to take these reforms forward as once we issue directions to give effect to our final decision, the Access SCR closes for all areas of scope.
- 3) A phased approach provides an opportunity to more fully align consideration of DUoS options with wider policy priorities such as our broader flexibility strategy, transport

³ [Forward work programme 2021/22 | Ofgem](#)

⁴ Details on scope of the original Access SCR: [Decision doc Dec 2018 - Appendix - Details on scope v3 \(ofgem.gov.uk\)](#)

⁵ We recognise the potential need for wider a wider Transmission Network Use of System (TNUoS) review and have issued a call for evidence which closes on 12 November - [TNUoS Reform - a Call for Evidence | Ofgem](#). We expect to have identified next steps for transmission charging by the start of 2022 and will consider the TNUoS aspects of the Access SCR in the context of our decision on the future of transmission charging when issuing our direction on phase 1.

and heat decarbonisation, and wider market reform. The shape of DUoS reform will depend on policy choices and developments across Ofgem, government, and industry.

For example:

- The extent to which locational flexibility is signalled through markets vs. charging or other mechanisms
- The acceptable strength of signals for different user groups
- Visibility and availability of data across the energy system that enables greater innovation in planning and operating distribution networks

Impact of a phased approach

It is our intention that the terms of our directions on the Access SCR are implemented in time for RIIO-ED2 commencement. As part of the latest RIIO-ED2 business plan guidance⁶, we issued a set of planning assumptions to electricity distribution network companies (DNOs) and have advised that final business plans should take cognisance of the Access SCR minded-to consultation.

We recognise that some of our minded-to proposals have linkages to DUoS reforms, for example:

1. By reducing user contribution to reinforcement for generation and removing it completely for demand, we are reducing/removing a locational signal for distribution connections. We acknowledged in the minded-to that in the absence of changes to DUoS this may lead to less efficient pricing signals to connecting customers who have some geographic elasticity on location.
2. We said in the minded-to consultation that for time-profiled distribution access rights, there could be scope to reflect the value via DUoS charges, which could vary at different times of the day reflecting how constrained the network is estimated to be, relative to peak load.

We intend to review these areas as part of our phase 2 reform. If consequential changes are required in accordance with the final DUoS decision, they will be implemented in phase 2. However, we do not consider it is essential to reform DUoS at the same time as implementing phase 1 and we think that there is immediate value that can be realised through timely implementation of policy change in this area.

As we recognised in the minded-to, RIIO-ED2 business planning has strong dependencies on our proposals. The changes to the connection boundary would change the DNOs' allowances under the price control, so it is important that we provided clear direction of travel in time for them to be considered when developing business plans and price control settlements. We

⁶ [RIIO-ED2 Business Plan Guidance | Ofgem](#)

also think that greater consistency and definition of access rights are low regret reforms with benefits to user experience and network planning over the course of RII0-ED2.

We acknowledged in our minded-to that there may be consequences to delaying DUoS reform, including some increased costs without DUoS reform coming in simultaneously. It is for this reason that we do not want to further delay our review of DUoS and wish to start re-engaging with our stakeholders – including Challenge and Delivery Groups – via the new DUoS SCR.

DUoS is a complex area of policy with links to many initiatives and policy work that is ongoing at the same time – including the call for evidence on TNUoS. Charging decisions cannot be taken absent of an understanding of the impacts on wider policy objectives. We are eager that DUoS reforms result in the right outcomes and bring about network investments in an efficient manner that supports decarbonisation while protecting consumers. Launching this new SCR will allow us to make progress towards these goals.

Timeline and implementation

Our work on DUoS is now expected to take place throughout the course of 2022. As charge setting is an annual process and our reforms may require complex modelling and systems changes, we think that the earliest possible date for implementation is 2025. We are seeking your views on implementation timescales taking into account interactions with other market developments.

SCR process and industry code modifications

We intend to maintain the SCR process defined in the original 2018 launch letter.⁷ That is, at the end of the SCR phase, we would issue a direction to the relevant licensee(s) to raise the relevant code modification proposal(s).⁸ At this time, we think that this approach still offers the right balance between Ofgem leadership in this work and industry expertise in developing and drafting the appropriate code changes. This is in line with the current approach to network charging where the DNOs administer approved tariff methodologies and play an important role in open governance. There will be scope to review this approach during the SCR if it can be shown that another approach would deliver benefits for consumers.

We are extremely cognisant that the Access SCR has been running for nearly 3 years and that new modification proposals that cover similar ground to the SCR have not been able to proceed, unless specifically exempted by us. We believe in the value of the SCR process to deliver holistic changes to a difficult policy area. However, we acknowledge that given long timescales involved it would not be practical to hold up the open governance process,

⁷ [Decision doc Dec 2018 - SCR launch statement FINAL VERSION \(ofgem.gov.uk\)](#)

⁸ In our launch letter we set out 3 options: 1. Ofgem directs licensee(s) to raise modification proposal(s) 2. Ofgem raises modification proposals 3. Ofgem leads an end to end process to develop code modification(s)

especially where there are improvements that can be made in the short term that would bring benefits to consumers.

We therefore intend to continue to work with industry to ensure that new modification proposals which do not interfere with the aims and broad principles of our SCR are allowed to proceed.

Scope of the SCR

We are proposing to directly mirror the scope of DUoS review set out in the original Access SCR, adhering to the existing guiding principles⁹. This would include but not be limited to the following issues:

- A review of the charging methodologies for Extra-High Voltage (EHV), as well as High Voltage/Low Voltage (HV/LV)¹⁰
- The balance between usage-based and capacity-based charges, as well as charges that could vary by time-of-use
- Improvements to signals about how network costs and benefits vary by location
- Improved predictability of charges for EHV users
- The potential need for mitigating measures such as a basic charging threshold to protect small users (and vulnerable customers) from sharper charging signals

Considerable amount of work has been done on the above topics to date (see annex 1). This includes substantial contributions from our Delivery Group and Challenge Group – outputs of which can be found on the Charging Futures website.¹¹ Our latest thinking is published in a set of working papers¹² and an open letter on our shortlisted policy options¹³. The shortlisting paper set out the options we proposed to take forward for the various technical choices we had identified for DUoS reform, including:

- The choice of cost model in the charging methodologies which determines how costs are identified and charged to customers
- The extent of locational and temporal granularity
- The design of DUoS charges, i.e. the basis on which users are charged

We intend to build on this body of work. However, we acknowledge that the context in which DUoS reform is set is changing – this includes vital linkages to full-chain flexibility, heat and transport decarbonisation roadmaps, and the fast-changing wider energy landscape that could lead to further market developments (such as in wholesale and retail).

⁹ Guiding principles for the Access SCR are 1) Arrangements support efficient use and development of the network 2) Arrangements reflect the needs of consumers as appropriate for an essential service 3) Any changes are practical and proportionate

¹⁰ EHV users are charged under the Extra-High Voltage Distribution Charging Methodology (EDCM) while HV and LV users are charged under the Common Distribution Charging Methodology (CDCM)

¹¹ [SCR working group publications - Charging Futures](#)

¹² [Access and Forward-Looking Charges Significant Code Review – Summer 2019 working paper | Ofgem](#)

¹³ [Electricity Network Access and Forward-Looking Charging Review: Open Letter on our shortlisted policy options | Ofgem](#)

Where required, we will update our analysis but we consider all previous work on this subject remains relevant and instructive to future DUoS work.

A key priority following the launch of the new SCR would therefore be updating our principles-based thinking to make sure our proposed package of reforms remain relevant and fit for the future. The following table sets out areas of development (non-exhaustive) that will need to be addressed as part of the SCR in order to reach a formal policy position. We intend to develop the principle-based topics below and engage with industry stakeholders in early 2022.

| # | Area of development | Detail |
|--------------------------------|---|---|
| Principles based topics | | |
| 1 | Updated case for change | <ul style="list-style-type: none"> • Current shortcomings of DUoS methodology • Desired key outcomes of DUoS reform |
| 2 | Principles and trade-offs in network charging | <ul style="list-style-type: none"> • Understand trade-offs in network charging principles • Priorities and fully understand how options serve various principles |
| 3 | Role of DUoS in the emerging energy system (including decarbonisation) | <ul style="list-style-type: none"> • Reference cases we want to test options against – both in terms of market arrangements and future energy scenarios • The size of the signal we have at our disposal to induce behavioural response |
| 4 | What signals to send and to whom? | <ul style="list-style-type: none"> • What signals to send and the transmission mechanisms for those signals |
| 5 | Distributional impacts, vulnerability, and fairness | <ul style="list-style-type: none"> • How big a signal are we willing to send • What are the distributional impacts and are there particular consumer archetypes we need to pay attention to |
| Technical topics | | |
| 6 | Outstanding issues from phase 1 Access SCR reforms | <ul style="list-style-type: none"> • Reintroducing locational signals lost through connection charge • Ensuring DUoS arrangements are compatible with new non-firm/time-profiled access rights |
| 7 | Linkages to flexibility | <ul style="list-style-type: none"> • How DUoS works in practice in enabling and achieving the benefits of flexibility, sitting alongside other signals/mechanisms • Linkages with wider full-chain flexibility work |
| 8 | Choice of cost model | <ul style="list-style-type: none"> • What cost model is appropriate at each voltage level considering path dependency and future adaptability |
| 9 | Locational granularity | <ul style="list-style-type: none"> • How the cost models need to evolve to introduce more locational granularity |
| 10 | Charge design/cost allocation | <ul style="list-style-type: none"> • Based on the above technical choices what is the appropriate way to charge customers • Balance between usage-based and capacity-based charges |

Our consultation questions

We are inviting your views on our proposal as set out in this letter. In particular, we welcome responses to the following questions:

1. Do you agree with our proposal to descope DUoS from the Access SCR and take it forward under a dedicated SCR with revised timescales?
2. What are your views on timescales for implementation of DUoS reform? How does this interact with wider market developments and what do we need to take into account?
3. What areas of interactions of DUoS with wider developments in policy/industry do we need to consider in our review?
4. Have we considered all the impacts of a phased approach to delivering the original scope Access SCR?
5. Do you have any views on our proposal to retain the scope and governance arrangements of the original Access SCR?
6. Do you have any other information relevant to the subject matter of this consultation that we should consider?

Next Steps

Please submit your responses by 6 December 2021 to the following email address: FutureChargingandAccess@ofgem.gov.uk

If you would like your response to be kept confidential, you should mark it as such. Any responses not market confidential will be published on our website.

We look forward to hearing from you and will aim to publish an update by early next year.

Yours faithfully,



Patrick Cassels

Head of Electricity Network Access - Energy Systems Management and Security

Annex 1 – Related publications on distribution network charging

The following table provides a summary of officially published documents on our wide ranging review of DUoS to date

| Publication | Summary |
|--|---|
| Significant Code Review launch statement and decision on wider review, Ofgem, 2018 | <p>Sets out the scope of the Electricity Network Access and Forward Looking Charges SCR.</p> <p>We indicated a wide-ranging review of forward looking DUoS charges including:</p> <ul style="list-style-type: none"> • A review of the charging methodologies for Extra-High Voltage (EHV), as well as High Voltage/Low Voltage (HV/LV) • The balance between usage-based and capacity-based charges • Improvements to signals about how network costs and benefits vary by location • Improved predictability of charges for EHV users • The potential need for mitigating measures such as a basic charging threshold to protect small users (and vulnerable customers) from sharper charging signals |
| Access SCR summer working paper, Ofgem, 2019 | <p>A suite of discussion notes setting out our emerging thinking. On network charges, we published two notes:</p> <ol style="list-style-type: none"> 1. Options for improving locational accuracy of distribution charges <ul style="list-style-type: none"> • Set out options for how distribution locational signals are calculated including choice of network costs models and extent of locational granularity • Considered whether network cost models should be based on long run marginal costs (LRMC) or short run marginal costs (SRMC) • Discussion on the types of costs that should be signalled, modelling approaches, and who signals should be sent to • Signalled a preliminary view that cost models should continue to be based around an LRMC approach • Considered approaches to improve cost-reflectivity by improving how well they reflect local network conditions 2. Charge design options for distribution and transmission charges <ul style="list-style-type: none"> • Provides an assessment of different options for how charges are designed with 5 basic options for DUoS: agreed capacity, actual capacity, volumetric time of use, dynamic charging, and critical peak rebates • Exploration of the overarching question of whether demand and generation should be treated as equal and opposite • Considers options to recognise how both demand and generation can take actions that has a benefit or drives costs on the network • Analysis of the advantages and disadvantages of static and dynamic charging design options |

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|--|--|
| <p>Open Letter on our shortlisted policy options, 2020</p> | <p>Open letter and annexes that set out the options we are proposing to shortlist for detailed assessment, and those we are not.</p> <p>The choice of shortlisted options was based on a range of evidence and input from stakeholders and other analysis, including evidence on network cost drivers and other input on options development under our Delivery Group.¹⁴</p> <p>For DUoS, we structured our shortlisted options as follows:</p> <ul style="list-style-type: none"> • Cost model options <ul style="list-style-type: none"> - Charges based on forecasts of where incremental reinforcement is required to the EHV network - An “ultra-long run (ULR)” model that would be applied to all voltage levels - Supplementing ULR model with discounts based on indicator of spare capacity on EHV - Charges/credits calculated based on indicator of spare capacity on EHV • Extent of locational granularity <ul style="list-style-type: none"> - Splitting DNO areas into more granular zones for charging based on primary substations, or grouping of primaries. - Locational variation based on how costs vary for EHV in various areas or adjusting credits/charges according to if dominant network flows are caused by generation or demand - Different time bands to reflect locational variation in network peaks - Options to reduce volatility of charges for users connected at EHV • DUoS charge design <ul style="list-style-type: none"> - Charges based on more accurate time of use bands, e.g. seasonal - Charges based on agreed capacity rights |
|--|--|

¹⁴ [SCR working group publications - Charging Futures](#)