

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

Email: FutureChargingandAccess@ofgem.gov.uk

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Dear stakeholder,

Decision 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

This letter sets out, following recent consultation and with immediate effect, our decision to formally descope a wide-ranging review Distribution Use of System (DUoS) charges from the Access and Forward-Looking Charges SCR¹ ('Access SCR') and initiate a dedicated SCR to take DUoS reform forward.

The original scope of the Access SCR² will now be delivered via a phased approach involving two discrete directions:

- **Phase 1:** Connection boundary and access rights (2023 implementation)³
- **Phase 2:** Wide ranging review of DUoS (post-2023 implementation)

The new phase 2 'DUoS SCR' will mirror the scope of the wide-ranging review set out under the original Access SCR, adhering to the existing high-level guiding principles.⁴ It will also keep under review the DUoS mitigations proposed in our recently published updates to our minded to positions (subject to these proposals being adopted in our final

¹ The Access SCR launch statement can be found [here](#)

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

³ The latest policy proposals for these areas are set out in our Access SCR updates to minded-to positions [here](#)

⁴ Details on scope of the original Access SCR can be found [here](#)

Access SCR decision). This includes our proposals for a high cost cap, and the treatment of both three phase and speculative connections.

In our recent Access SCR updates to our minded-to positions, we also communicated that we no longer intend to issue a direction regarding TNUoS-related aspects of the Access SCR, having recently conducted a separate call for evidence on TNUoS reform. We now expect that any changes to TNUoS that were part of the original Access SCR scope, including our minded-to position that small distributed generators should pay TNUoS, will now be considered as part of our response to that call for evidence.

Our review of DUoS will take place throughout the course of 2022, with the recommencement of stakeholder engagement after we have issued our final direction on phase 1, expected in Spring 2022. Further details on scope, structure, and timescales of the SCR are set out in the sections 3 and 4 below.

1. Background and consultation

In December 2018, we launched the Access SCR which covered four areas of review: definition and choice of access rights, a wide-ranging review of DUoS, a review of the distribution connection charging regime, and a focused review on transmission network charges. Since then, we have consulted on minded-to positions covering a subset of the original Access SCR scope.

Further work on review of forward-looking distribution network charges was paused in part due to overlaps with the development of Ofgem's 2021/22 forward work programme (see annex 1 for a summary of the outcomes of our DUoS review to date).⁵ This set out several strategic change programmes that could strongly influence the role 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.

In November 2021, we consulted on descoping DUoS from the Access and Forward-Looking Charges SCR ('Access SCR') and taking it forward under a dedicated SCR with a revised timescale.⁶

We said that this approach would allow us to progress with our connection boundary and access rights proposals in time for implementation in alignment with the start of RIIO-

⁵ More information on our 2021/22 Forward Work Programme can be found [here](#)

⁶ The consultation on our proposal to take forward the reform of Distribution Use of System charges under a separate Significant Code Review on a revised timescale can be found [here](#)

ED2. We continue to believe in the necessity of a wider review of distribution network charging and the requirement to introduce a separate vehicle to take it forward. The new SCR also provides an opportunity to align consideration of DUoS options more fully with wider policy developments including broader flexibility strategy, transport and heat decarbonisation, and wider market reforms.

We received 25 responses to our November consultation and have considered this feedback in issuing this decision and in our forward work plan. We thank all respondents for their valuable input and the high-quality engagement with our consultation. We would also like to acknowledge respondents who have gone further in providing detailed recommendations on particular changes they would like to see to the DUoS methodology, which we expect to take into consideration in the course of our review. Responses that were not marked as confidential are published alongside this document.

2. Summary of consultation responses

Descoping DUoS and initiating a new SCR

Our proposal to descopify DUoS from the Access SCR and initiate a dedicated DUoS SCR received support from a majority of respondents (80%). Respondents acknowledged this has become necessary to facilitate the implementation of reforms to connection charging and access rights arrangements by April 2023.

However, around half of respondents expressed disappointment that this would result in further delays to DUoS reform. One respondent considered the need for further delays as a failure of the SCR process and its surrounding mechanisms to address important issues with DUoS.

We acknowledge that the Access SCR has been running for over 3 years and we are aware of the importance of DUoS reform, particularly in the context of delivering a flexible, net zero system. We would like to assure stakeholders that this review is a priority for Ofgem, and we aim to progress this review in a timely manner.

Timeline and implementation

We asked for views on timescales for implementation of DUoS reform and received a mixed set of responses. About a third of respondents (eight) agreed with us that the earliest possible date for implementation is 2025. This was due to the potential need for complex modelling and system changes, and the fact that charge setting is an annual process that includes a fifteen-month notice period.

Several respondents (six) perceived a 2025 target for implementation as overly ambitious. There were several different reasons given for this. One respondent pointed out that suppliers typically develop products with a 3–5-year duration and that implementation without sufficient notice could lead to complexity and confusion. Another suggested that due to links with the roll out of market wide half-hourly settlements (MHHS), the earliest that DUoS reform could be delivered was 2027. Several respondents also expressed the view that a clear decision on wider market reform – including TNUoS, flexibility, and wholesale markets – would be required as this would determine the path of future DUoS reform.

Two respondents highlighted the urgency of DUoS reform to reintroduce/rebalance signals that have been muted through other charging reforms – for example signals to embedded generation removed via the TCR and our proposed move toward a shallow connection boundary. By creating parallel paths for delivering the Access SCR and DUoS reform, there could be additional cost implications during the intervening period where locational signals are absent. These respondents would like to see some of these signals reintroduced ahead of 2025.

We are grateful for the thoughtful feedback we have received and agree with much of what has been described above. We know that we must deliver near term changes within the current market context. Equally, we also realise that the long-term direction of DUoS is dependent on any wider market reform and might therefore require a longer roadmap of changes.

This is something we will continue to engage stakeholders on and incorporate into our forward work planning. We aim to conclude our review of current arrangements as soon as is practicable but remain open to an approach where delivery of reforms are staggered to complement wider developments.

Interactions with wider policy developments in policy and industry

We asked respondents for their views on the interactions of DUoS with wider policy and industry developments. Nearly a third (nine) expressed that DUoS reforms needed to be considered alongside TNUoS reform. One respondent suggested that principles-based alignment on both topics would be helpful to avoid unintended consequences and misaligned signals.

Seven respondents referred to our proposals on connection charging and access rights under phase 1. They reiterated the need to quickly address any loss of signals from those reforms that could increase costs to consumers. Many respondents also brought up the linkages with market wide half hourly settlements (MHHS). One respondent

suggested that since the detail of MHHS is still largely unclear, any dates for work on DUoS would need to take MHHS into account and remain flexible to respond to forthcoming MHHS proposals. This respondent also highlighted that much of the work across Access, MHHS, and DUoS would draw on the same pool of finite resources across industry and that this will need to be considered when planning future work groups and engagement.

Several respondents (four) encouraged us to align our review with the government's net zero targets, asking us to consider interactions with the decarbonisation of the power sector by 2035 as well as transport and heat policies. A few respondents also highlighted the importance of ensuring that DNOs/IDNOs have the capability to manage complex settlement and billing processes and provide digital monitoring. One respondent suggested that some tranches of work can be done in parallel with but outside the scope of the DUoS SCR and encouraged us to consider aspects of work that could be fast tracked for early delivery.

Scope and governance of the SCR

We asked respondents for their views on our proposal to retain the scope and governance arrangements from the original Access SCR. A majority of respondents (65%) supported our proposal since nothing has changed since the original SCR commenced to warrant a wholesale change. We were encouraged to give full consideration to significant work that has already been carried out to avoid duplication of effort and speed up the review.

However, respondents would like to see that lessons are learnt from the delays to DUoS reform that have resulted from the current Access SCR process. One respondent encouraged us to provide better clarity on delivery milestones and appropriate delineation of roles and responsibilities in delivering the change. They also asked us to consider if some incremental change could be delivered via industry code modification whilst the wider review was still ongoing as this could speed up implementation.

Many respondents reminded us of the importance of giving industry adequate opportunity to participate in the review. This includes rethinking how we engage with our delivery and challenge groups, ensuring that these are more collaborative and inclusive (some respondents felt that membership was too weighted toward network companies).

One respondent did not agree with our proposals to retain the governance arrangements and suggested that a joint BEIS/Ofgem taskforce approach would be better suited to

deliver results⁷. They suggest that Delivery Group outputs often offered little opportunity for wider engagement and that Ofgem views were already entrenched by the time the wider Challenge Group was convened. They also suggest that the large size of the Challenge Group meant that meetings were often unproductive and too high level.

We thank the respondents for their feedback and take seriously concerns raised with the current governance and delivery mechanisms of the SCR. We also note concerns that the Challenge Group particularly, has not been used effectively in recent months. We are committed to refreshing our approach to ensure these are genuine forums for challenge and not just one-way communication of policy proposals. Should it become apparent that the current governance arrangement and engagement mechanisms are not working effectively, we will adapt our approach.

3. The purpose and scope of the DUoS SCR

Our reasons for launching the new DUoS SCR are largely procedural in nature. As we set out above, and in our consultation, it would allow the Access SCR to conclude with a single direction whilst providing a vehicle to progress the 'wide ranging review' of DUoS. However, the overall objective for our DUoS review remains unchanged – *to ensure electricity networks are used efficiently and flexibly, reflecting users' needs and allowing consumers to benefit from new technologies and services while avoiding unnecessary costs on energy bills in general.*

We are conscious, however, that the current Access SCR was launched prior to more recent developments relating to the imperative of delivering a net zero electricity system, including the release of the sixth carbon budget and government's net zero strategy. We also recognise that there will be important choices to make about how consumers and industry should face the costs associated with the requisite investment in the electricity system. This could include decisions relating to the trade-offs between the different price signals which could be sent through charging or market arrangements, as well as developments in how the network is planned, built, and operated.

The DUoS SCR will continue to adhere to the high-level guiding principles previously set out (see table 1)⁸ which were informed by our wider statutory duties and relevant economic theory. These guiding principles were, however, formulated in the context of the original scope of the Access SCR and will need to be adapted for a new DUoS-specific scope.

⁷ We note that review of network charging arrangements is not a government role

⁸ For more detail on our guiding principles refer [here](#)

In the early stages of our review, we therefore intend to revisit what these guiding principles mean in the context of a DUoS SCR to ensure that they remain up-to-date and relevant to our review (for example, there are some references to connections in the original principles developed for the Access SCR, set out in table 1). This is an area where we intend to discuss any updates with our stakeholders.

Table 1: Original Access SCR guiding principles

Guiding Principle	What it means in practice
1. Arrangements support efficient use and development of network capacity	<ul style="list-style-type: none"> - Arrangements provide signals that reflect the costs and benefits of using the network at different times and places, to support efficient use of capacity, and ensure no undue cross-subsidisation between users - They provide effective signals for where new network capacity is justified - Arrangements reduce barriers to entry and enable new business models where these can bring value for the system - Arrangements which reflect this guiding principle support decarbonisation, primarily by enabling uptake of low carbon technologies through enabling quicker connections and reducing network costs. They will also look to enable and reflect the benefits that new, innovative approaches and business models (such as local energy models) can bring to the network. However, they should not provide any undue preferential arrangements based on technology or user type.
2. Arrangements reflect the needs of consumers as appropriate for an essential service	<ul style="list-style-type: none"> - Electricity provides an essential service and small users in particular need protection from arrangements which may result in harm to their welfare. This may be achieved in the access and charging arrangements themselves or through the wider policy and regulatory arrangements. - Users, or suppliers/intermediaries on their behalf, can understand arrangements and have sufficient information to be able to reasonably predict their future access and charges
3. Any changes are practical and proportionate	<ul style="list-style-type: none"> - Changes can be implemented given the applicable legislative framework and technologies including: <ul style="list-style-type: none"> o Data collection, processing, and analysis o Systems, assets, and equipment requirements o Charge calculation and settlement o Engineering and planning standards o Ease of implementation (including legislative changes and transitional arrangements) - Costs of change are proportionate to consumer benefit

Scope

The DUoS SCR will directly mirror the scope of the DUoS review set out in the original Access SCR. 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)⁹
- 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

As we described in our consultation, 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.¹⁰ Our latest thinking is published in a set of working papers¹¹ and an open letter on our shortlisted policy options¹². We intend to build on this body of work and where required will update our analysis to reflect the changing market and policy context.

In our consultation, we identified linkages between the Access SCR and the DUoS SCR. These included the balance between locational signals sent in the connection charges versus ongoing use-of-system charges, and time profiled access rights which may be able to signal periods of network constraint.

In our updated minded-to positions for the Access SCR we outlined mitigations to our proposed shallow(er) connection charging boundary to prevent excessively high costs from being socialised across the wider DUoS customer base, who are unlikely to benefit from any individual investment but may benefit from reinforcement in aggregate. These proposed mitigations include a high cost cap on connection charges, and how three phase and speculative connections are treated under the new connection charging arrangements.¹³

⁹ 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)

¹⁰ Our SCR working group publications can be found [here](#)

¹¹ Our Summer 2019 working paper can be found [here](#)

¹² Our shortlisted options published in 2019, link [here](#)

¹³ More detail on these proposals can be found in the Access SCR updates to our minded-to proposals [here](#)

Should these proposed mitigations be reflected in our final Access SCR decision, we intend to retain these areas within the scope of the DUoS SCR to ensure that these mitigations remain effective once the direction on DUoS reform is clear. There may be a case to amend or remove some or all of these mitigations, dependent on the specific details of future DUoS reform.

We set out in our consultation a non-exhaustive list of areas (reproduced below) that we will be reviewing as part of the DUoS SCR. Our priority early in the process is to update our principles-based thinking to make sure any proposed package of reform remains relevant and fit for the future. This may result in changes to the list of shortlisted options we previously developed. We look forward engaging with stakeholders on these areas in the first half of this year.

Table 2: DUoS SCR areas of development (non-exhaustive)

#	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 • Alignment with other charging reforms • Alignment with relevant wider market reforms • Consideration of interactions with the delivery of a net zero electricity system
2	Principles and trade-offs in network charging	<ul style="list-style-type: none"> • Understand trade-offs in network charging principles • Prioritise 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 way that those signals are passed on to users of the network
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"> • Reviewing and assessing locational signals removed from connection charges • 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 • Addressing the boundary distortion between EHV and HV/LV created by the current methodologies
9	Locational granularity	<ul style="list-style-type: none"> • How the cost models need to evolve and developing options for introducing 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

4. SCR process and timing

We intend to retain the SCR process defined in the original 2018 launch letter¹⁴. 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).¹⁵ We will broadly retain the approach to getting stakeholder input to our work, though the terms of reference and membership of these groups may need to be reviewed.¹⁶

¹⁴ Our 2018 SCR launch statement can be found [here](#)

¹⁵ 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)

¹⁶ We set out the approach to getting stakeholders' input to our work as part of the Access SCR [here](#)

At this time, we believe that an SCR is still the best tool available for us to manage the complex and interrelated questions which may lead to changes across multiple industry codes. However, we take seriously feedback from stakeholders that there are shortcomings in the SCR process, particularly as it relates to speed and flexibility (or lack thereof). We also acknowledge that DUoS reform involves complex interactions and potentially a long roadmap of changes.

There will be tactical changes that we can, and must, deliver in the near term to ensure efficient system outcomes and support decarbonisation. These changes will likely be made within the current market context. However, we will also need to prepare for a fully decarbonised power system by 2035 and network charging would need to be compatible with any future market context.

We recognise that all these changes are unlikely to materialise from a single SCR direction – the current formal end point of an SCR process. We will therefore keep our approach and process under review, giving ourselves the ability to adapt our approach once the direction of travel becomes clearer.

We also acknowledged in our consultation that while the Access SCR has been running, industry have not been able to bring forward new modification proposals that cover similar ground, 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, especially where there are improvements that can be made in the short term that would bring benefits to consumers.

We would like to reiterate our commitment to working with industry to ensure that new modification proposals which do not interfere with the aims and broad principles of the DUoS SCR are allowed to proceed.

Our review of DUoS will take place throughout the course of 2022. As we are presently focused on working toward the conclusion of the Access SCR, we expect the bulk of stakeholder engagement to happen after we have issued our final direction, expected in Spring 2022. We intend to keep stakeholders updated on our plans via engagement with the Charging Futures Forum and associated events¹⁷.

Our work on the DUoS SCR will broadly follow three key phases with associated deliverables:

¹⁷ More information on the Charging Futures Forum can be found [here](#)

1. **Discovery.** The focus of this phase is to update our principles-based thinking as described above. This will allow us to effectively target our work and identify a set of policy options that can be prioritised according to impact and dependency on other moving parts.
2. **Options definition and analysis.** This phase is focused on developing technical options for shortlisting, defining/reaffirming the shortlist based on our principles-based thinking, and carrying out the analytical work required to test the shortlisted options.
3. **Minded-to policy positions.** Once the shortlisted options have been tested, we will be able to develop minded-to positions in consultation with industry. By this phase, we should have a clear idea on the direction of travel for longer term charging reform and will be able to sequence delivery of proposed reforms accordingly.

We will be reviewing our Challenge Group participation shortly and invite stakeholders to express interest in becoming members. As part of this exercise, we will also be working with the ENA to update the terms of reference associated with these groups in their secretariat capacity. We will provide an update on DUoS following our final direction on the Access SCR in Spring 2022.

We welcome your interest and engagement in this important review.

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 Ofgem documents relating specifically to 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

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	<ul style="list-style-type: none"> • Analysis of the advantages and disadvantages of static and dynamic charging design options
<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.¹⁸</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

¹⁸ Our Access SCR working group publications can be found [here](#)