



Forum

Charging Futures Forum

October 2023



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Opening Remarks

Akshay Kaul

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Agenda

10:00 – 12:15

- > 10:00 – Opening Remarks with Eleanor Warburton
- > 10:15 - Strategic Transmission Charging Reforms with Jack Presley-Abbot
- > *11:00 Break*
- > 11:15 - Near-Term Transmission Charging Reforms with Harriet Harmon
- > *12:00 Break*

12:15 – 13:15

- > 12:15 – Distribution Charging Reforms with Andrew Malley
- > 13:00 – Closing Remarks with Eleanor Warburton

Q&A

- > Eleanor Wood



Strategic Transmission Charging



OFG1161

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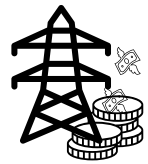
We published an open letter on [Strategic Transmission Charging Reform](#) on 11 September 2023 setting out initial thinking on the future role and design of electricity transmission network charging.

Responses are welcome by 15 November 2023.



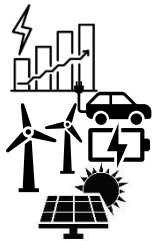
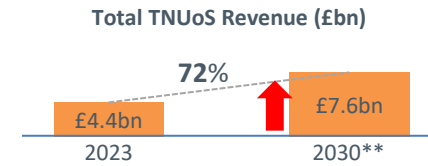
Today we will:

- Provide an overview of the context and purpose for this work and next steps
- Gather initial views on key questions and design decisions
- Answer any questions you have.



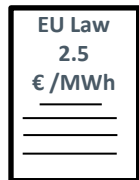
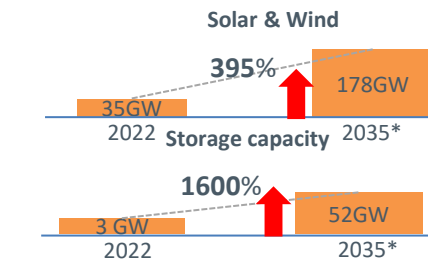
Increasing network cost...

A significant expansion of the transmission network is planned for the next two decades, to accommodate geographically dispersed generation.



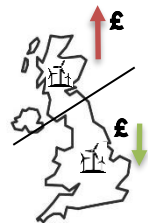
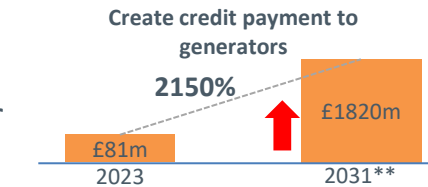
Increasing generation, storage and demand...

Renewable generation with storage and flexible demand will be the backbone of a larger future decarbonised power system. These substantial increases network asset **require effective locational signal** for where to connect to lower consumer cost



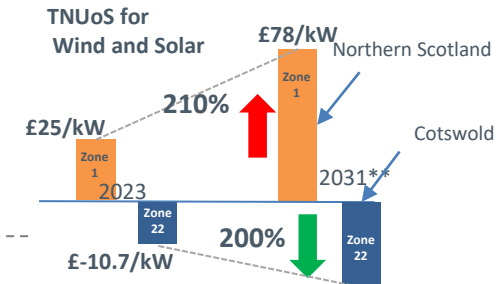
Greater intervention from EU generator cap...

The EU retained law limit the Transmission Generator charges from € 0-2.5/MWh The cap limits the strength of TNUoS signal, creates **credit payment to generators** and results in higher cost on residual charges



Increasing divergent of Northern and South TNUoS tariff...

With significant expansion of the transmission network, new generators locate in remote areas. EU generator tariff cap application and inability to floor Generator TNUoS at 0 will lead to a great divergence between TNUoS in Northern and Southern regions



Potential new locational signal from wider market reforms...

Implications from the Centralised Strategic Network Plan, anticipatory investment policy and locational CfD, new access and deeper connection arrangement and other market reforms will interact with the signals sent by TNUoS

Challenge:

*FES 2022, Leading the Way scenario
**Five-Year Projection of TNUoS Tariffs for 2029/30 to 2033/34

System changes

- Increase in the role of renewables
- Need for significant investment in both networks and renewable generation
- Coordination and planning of infrastructure

Policy changes

- Introduction of the FSO and centralised Strategic Network Plan (CSNP) and Strategic Spatial Energy Plan (SSEP)
- Distribution Use of System (DUoS) charging Significant Code Review (SCR)
- Review of Electricity Market Arrangements (REMA)

- Transmission charging arrangements are one of the policies and signals that drive investment decisions by electricity network users.
- Future charges will need to work coherently with wider market signals and planning arrangements, both of which are subject to uncertainty.

Alignment with TNUoS Task Force:

- Work is underway in the Task Force to ensure the TNUoS regime remains fit-for-purpose for the system we have today and will have over the next decade.
- This is currently focused on making changes to the existing methodology to improve the stability and predictability of the existing TNUoS Framework.

How is STC work different: Strategic Transmission Charging (STC) focuses on the long-term role of TNUoS in a largely decarbonised system. We will ensure coherency with the Task Force work.

Alignment with REMA:

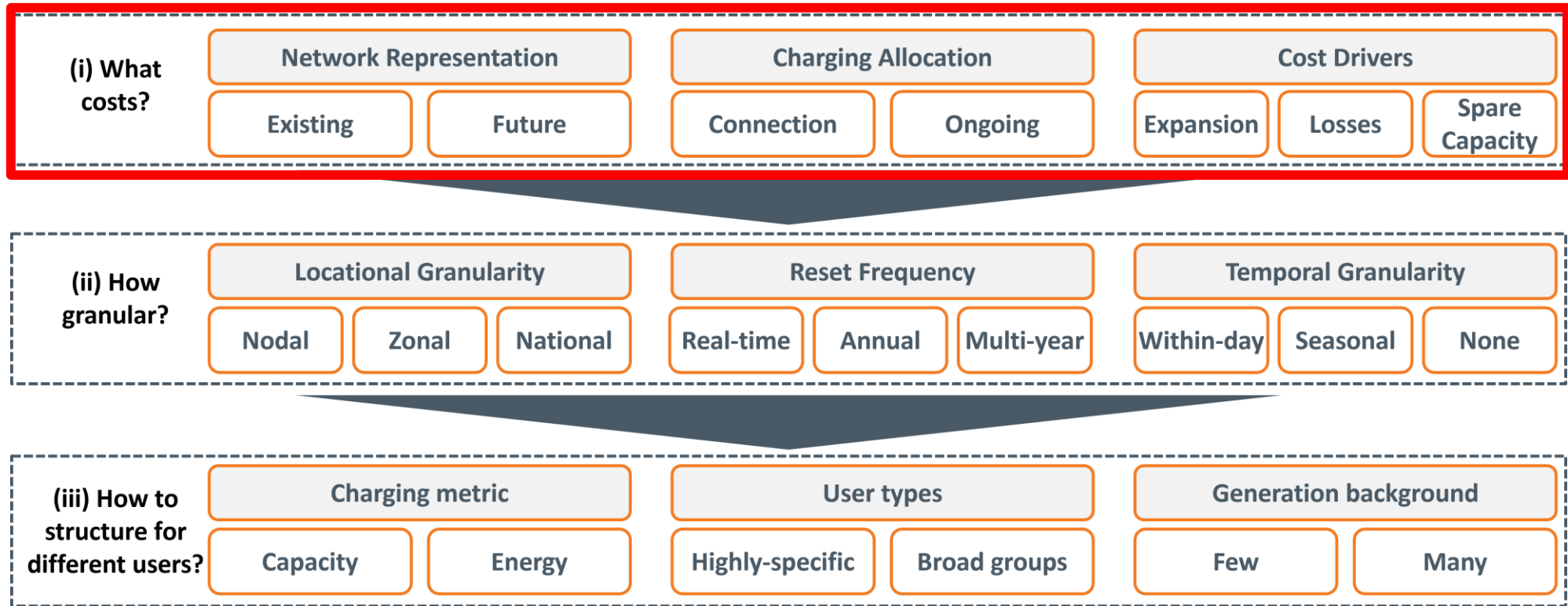
- TNUoS could play a key role in sending locational investment signals under a range of possible REMA outcomes
- TNUoS is being considered in the upcoming second REMA consultation, due to be published in December
- The role of TNUoS for sending investment signals will depend heavily on other decisions made under the REMA program on design choices

Next steps

- We will review Open Letter responses and will use these to inform our thinking.
- Working closely with the TNUoS Taskforce, we will further assess the case for change and develop an analytical framework to support the identification and assessment of options


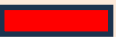
Key Policy area	Interactions with TNUoS
REMA	<p>The design of TNUoS signals are dependent on wider market design decisions</p> <ul style="list-style-type: none"> • Locational marginal pricing still under consideration in REMA • A reformed CfD could send locational signals and interact with signals sent by TNUoS. • Access rights, constraint markets and other pending REMA decisions might also impact the role of locational signals from TNUoS
Strategic network/system planning	<ul style="list-style-type: none"> • The Nick Winser report indicates a key role for strategic spatial planning • SCNP/SSEP and anticipatory investment could lead to risk of stranded assets far from demand • The role of TNUoS as a locational signal will depend on how this planning evolves
TNUoS Task Force	<ul style="list-style-type: none"> • Aims to improve the volatility and unpredictability of TNUoS. • Will investigate the Background, Signal, Data Input, Reference Node, Absolute vs Relative, Technology type, Sharing and Distributed Generator
EU Regulation 838/2010 – Generator Price Cap	<ul style="list-style-type: none"> • The design of many options for future TNUoS signals is dependent on the future role of the cap • It is DESNZ’s decision to repeal, amend or retain this retained EU regulation between now and 2026 • The regulation itself is also hard-coded into the CUSC

The open letter presents **9 key design decisions** for the future of TNUoS
 In this session we will focus on the question of what **costs should be paid**








Future network representation

-  Improved predictability
-  Potential costs to consumers if planned network does not get built

Existing network representation

-  Existing network configuration known so more cost reflective
-  Uncertainty and risk for investors in areas with large network investment required
-  Potential to penalise early adopters if network investment does not happen as planned



Q1) Should TNUoS costs be based on existing network infrastructure or future network infrastructure?

108

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Existing network



Future network





Deeper connection charges



Improved predictability by levying a greater proportion of lifetime costs upfront



Higher upfront costs could deter investment



Challenging to fairly and accurately allocate deeper charges specific connecting uses

Shallower connection charges



More costs must be recouped through TNUoS – both forward looking and residual charges



Shallower connection cost are easier to allocate



Less cost reflective than deeper connection charges



Q2) How should the future of network charges be split between connections charges and ongoing charges?

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Retain existing split between connections and ongoing charges



“Deeper” connection charges with less recouped through TNUoS





Long run network cost (expansion based) network charges

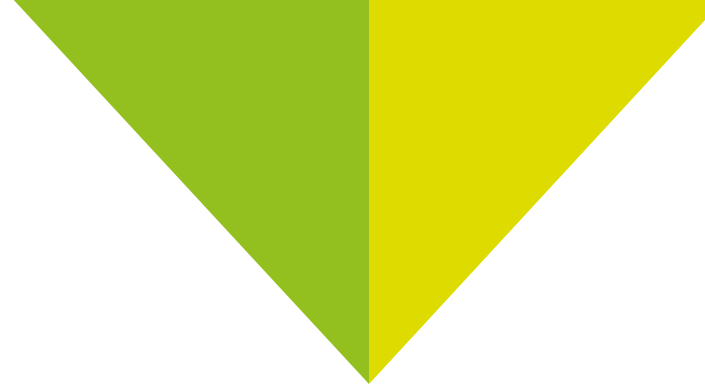
- Reflects the capital costs of building and maintaining the network in the long term.
- New build network assets to enable net zero targets could lead to very high TNUoS charges as the location of much of the planned generation is remote to demand centres.
- Could create disincentives for generators to connect to new build networks, leading to underutilisation and potentially exposing consumers to a greater risk of stranded investment.

Spare capacity-based network charges

- Reflects the costs of network constraints in different areas.
- Incentivises both generation and demand to make siting decisions that allow available network capacity to be used and reduce the need for additional network build and reinforcement.

Locational network losses based charges

- Reflects the cost of transmission losses, incentivising new generators to site close to demand, reducing the cost of network losses.
- Losses can be estimated for each node of the network, and may be positive or negative (ie a payment to the generator) depending on the exact location and power flows.



Q3) What methodology should be used to determine the charges?

098

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Expansion



Losses



Spare capacity



Please respond to the open letter by 15th November

Come and speak to us if there are further questions or email at [**WMReform@ofgem.gov.uk**](mailto:WMReform@ofgem.gov.uk)

Another session at the next CFF in February will go into greater depth and discuss the responses to the open letter



Q and A

Comfort Break

Back at 11:15

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Transmission Charging – CFF updates



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What is it?

- The TNUoS Task Force, chaired by ESO, was set up to improve the TNUoS methodology.
- It aims to **facilitate predictability and reduce volatility** of TNUoS charges – specifically targeting 2025/6 implementation where possible
- It is a **cross-sector group** of interested parties and experts assessing both small- and large-scale changes to the TNUoS methodology.

What has it done so far?

- Assembled a prioritised list of **key defects** to be resolved (including reference node, backgrounds, scaling factor, data inputs).
- Discussed **analysis by Frontier and LCP** on potential changes.
- Assigned **sub-groups** for different defect areas to be progressed.
- Created **CUSC code modification proposals** for reference node and scaling factors.

Next steps

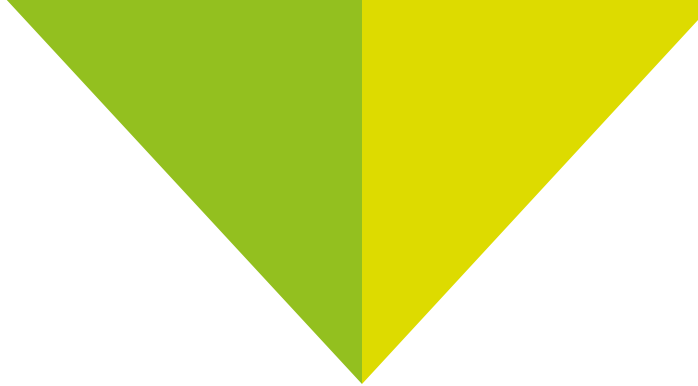
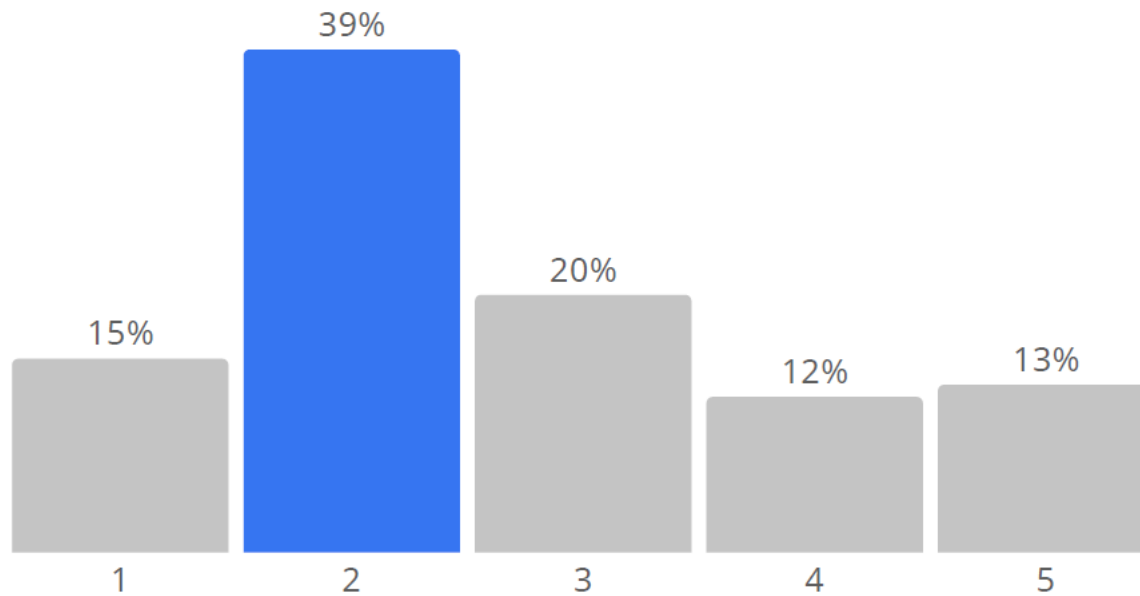
- Consideration of questions around **triads, embedded generation** and the **Peak/Year-Round** backgrounds – further CUSC proposals to follow!



Q4) Do you feel well-informed about what's happening in the Task Force?

084

Score: 2.7



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Q5) How can we improve visibility?

047

- Ofgem may have needed to pause their work on TNUoS TF but what on earth what were the ESO were doing? This is where the ESO should have stepped up and they did not.
- Not all readers are grid experts, concise summaries with plain English.
- I'm not sure on the scope of the task force and whether it is able to make significant reforms
- Agree on resourcing - Ofgem clearly under pressure and few people understand how important this is
- Easily findable resources on the CFF website
- have a more balanced representation of both sides of industry
- Is it sufficiently resourced? seems to rely on a handful of experts - these probably can't dedicate much time to this, not enough for the speed required?
- Forums to provide more context and explanation, the meeting minutes and slides are not enough
- Simple summaries
- Are the meetings open to observers?
- Share meeting minutes and outcomes of actions
- Concise, plain english summaries; links to other ongoing consultations, reforms, etc
- Use the Charging Future Forum with more info
- Updates on blockers. TF went v quiet for a while
- forums with each group of stakeholders
- Faster, more up to date publishing of TF meeting summaries and slides on the CFF website. Dissemination should not be left to TF members
- Is the task force sufficiently resourced - our impression is that it is not been driven very hard ?
The confusion between short term and long term charging reform does not help
We are unsure where to engage
- Difficult to track (a) workstreams and (b) detailed discussions on complex topics, even via the papers. A newsletter would be helpful, including issue tracker. Members sending updates via trade associations (does this happen?...)
- Provide regular updates/ newsletter. Relying on busy industry individuals to provide information was not a particularly great idea.
- Don't rely on market segment correspondence as they won't share if competitor



Q5) How can we improve visibility?

047

- Secretariat: bullet point newsletter. Flag which mods are under TF (either watching or birthed)
- separate sessions with industries of each group
- Dedicated space after a TF led by Ofgem rather than the current updates to Charging fora
- More forums like this one
- Plain English Ofgem views
- Increase the number of Task Force members
- Your overview just now was excellent. Short but regular updates from you via webinar would be ideal. Thanks
- Quarterly updates / news letter
- Look at MHHS program communication
- Ofgem-led charging futures with such a big attendance seems a useful place if meetings more frequent.
- Clearer dissemination of timelines
- Podcasts
- Blog
- Energy UK have reduced their activity since the taskforce has started and I'm not invited to their meetings anymore. Need another host.
- Podcast!
- regular update from chair of TF on issues and consideration
- Meeting and actions summaries
- Add sessions on difficult topics
- Utilise the Charging Futures distribution list more regularly
- Is there a core Website with everything set out summarised and available?

- Clear comms on code mods coming out of the Task Force (there's lots!)
- Friday ESO Newsletter
- The challenge is partly around the complexity of the issues that the taskforce is looking at as this is to a large degree somewhat impenetrable to us generalists!
- Podcasts on things eg new mods
- Publish papers and minutes on the CFF
- Timely meeting summaries being uploaded
- Industry newsletter
- More publications and guidance
- This Charging Forum has already helped me feel more informed
- Regular updates/bulletins
- expected CUSC mod timeline
- ESO response to all users
- More visibility! You are not uploading slide pack and meeting notes from august
- Newsletter updates
- Better communication
- Monthly updates
- More dissemination sessions like this one
- Quarterly updates
- Publish papers
- Newsletter

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What is it?

- In **September**, the ESO published a **projection of TNUoS tariffs** for 2029/30-2033/34. Together with the TNUoS Five Year View for 2024/25-2028/2, we have an illustration of 10-year trends if the current methodology remains unchanged, and subject to multiple assumptions re: generation and demand loads.

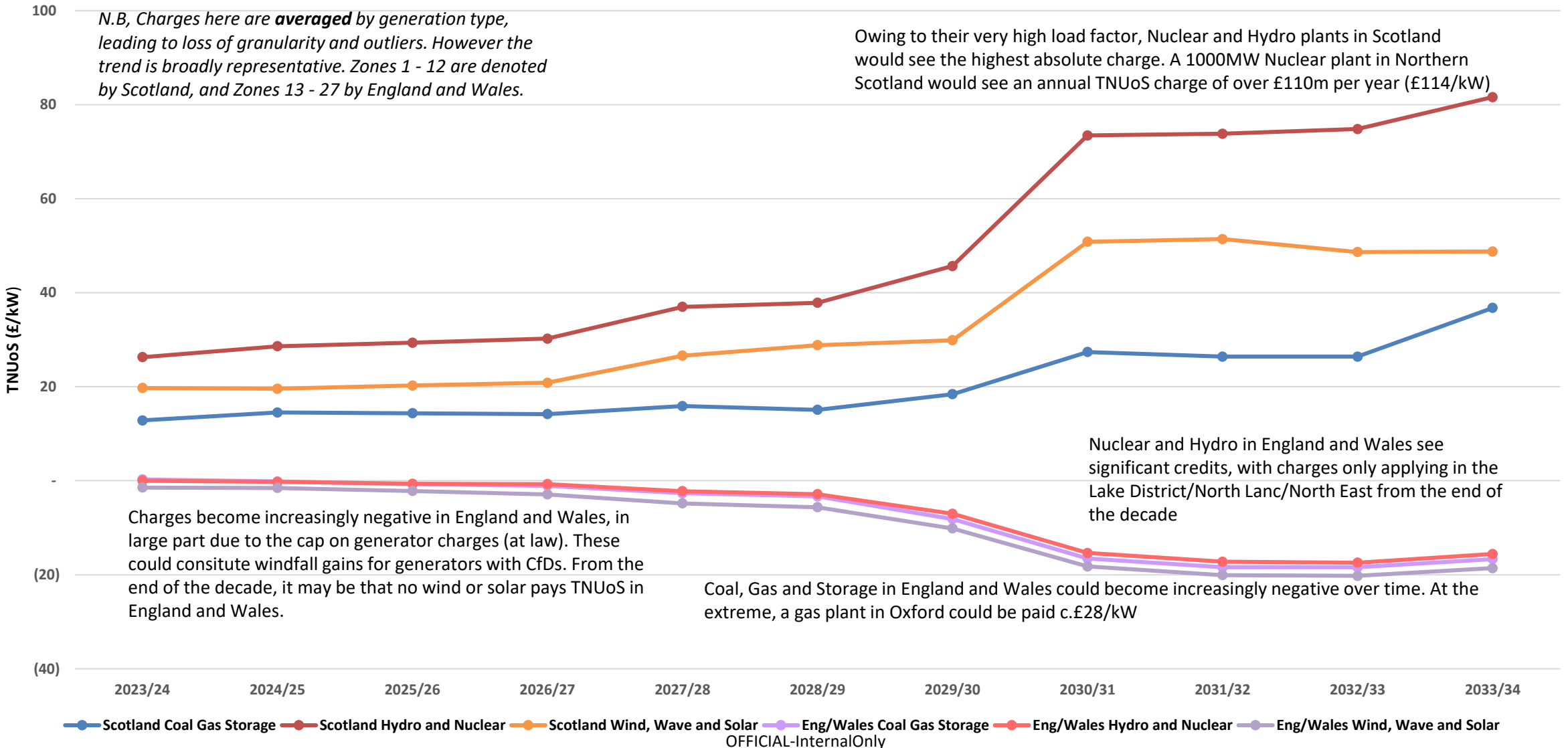
What for?

- The 10-year projection first look at the **charging impacts of some of the significant network investment** we expect to happen as part of ASTI and the first part of HND.
- Produced to support industry debate within the scope of **CMP 413**, which proposes to fix TNUoS tariffs for 10 years

What does it say?

- Projection shows **material increases** in TNUoS tariffs from ~2028/29 – these are **indicative of trends** but are not the actual charges that will be paid:
 - Scottish generator charges increase 2x on average
 - England and Wales generator credits increase linked to EU cap on the level of *average* level of generator charges
 - The total value of the TDR will continue to increase (from around £4bn/year now to £6bn/year by the end of the decade)
- The charging methodology **needs to keep pace** with accelerating levels of renewables and substantial network investment. We are working on reforms to create a more **robust methodology** which better reflects the way the transmission system is planned, built and used

Average TNUoS Generation





Live modification proposals?

- CMPs 405 and 393 look at specific parts of the methodology for storage
- Are there other aspects that need to be thought about? Should those constitute new mods or would a focussed industry group be valuable?

Or...

A Storage Subgroup?

- We believe a subgroup can help steer industry and ESO towards ensuring storage is treated appropriately in the methodology.
- Industry and ESO to bring forward evidence of storage behaviour. Currently more evidence needed of what costs storage is driving on the network.

Outstanding policy questions that still need to be addressed:

- i. How to make TNUoS for storage more predictable, improve locational signals
- ii. Storage classification (long term vs short term)
- iii. Storage YRS/YRNS (does this change/enhance winds ability to share)

Approach and next steps:

- i. We think a subgroup would be valuable but are interested in your views
- ii. Future network and regulatory framework with DESNZ
- iii. TNUoS Task Force to investigate how storage is treated under the Year Round background

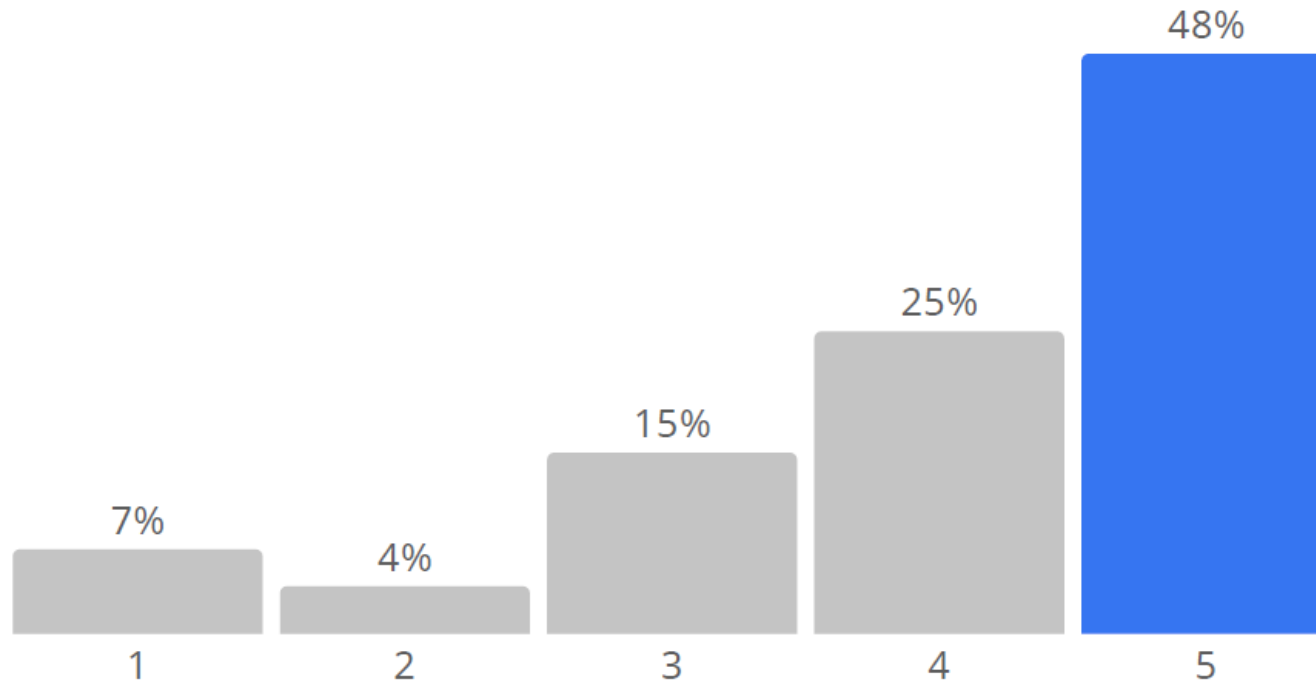


Q6) Do you think a storage subgroup would be a valuable use of industry time?

067

Score: 4.0

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Q7) What other aspects of the charging methodology for storage should be looked into?

016

- Not so much on storage, but is there a case for other forms of flexible demand, for example, flexible use of power by manufacturing to align with signals in BM, to have similar treatment to storage given the value that these deliver for wider energy system?
- Why not being used for better demand side response and frequency response
- Where do we need storage? Pricing to connect should reflect that (ongoing charges should not change).
- Greater network benefit from longer duration of storage
- I just want to see the results
- clear cut user guide for all types of storage (large/small, licence exemptible, co-located etc..., subsidy/support schemes available)
- Treatment or otherwise in charging and planning models
- Analysis of batteries for demand/ generation
- That they pay a fair charge - and don't avoid D or G charges
- Support obliging ESO+DNOs to bring evidence of actual storage behaviour, to build case for storage charging
- Why do storage pay tariff at all?
- residual charging for sites with some final demand
- BESS should pay £0 TNUoS as they are not either demand or generation customers
- Ofgem needs to be aware of resource constraints across the industry for yet more major change. We don't have 1-2 people in our organisation focused on this, we have <1
- Co location
- Net charging
- How Non-Firm connections should be charged
- Backgrounds

Live code modifications	Aim
CMP402: Introduction of Anticipatory Investment (AI) principles within the User Commitment Arrangements	Seeks to introduce User Commitment arrangements into the CUSC for the later user in AI projects.
CMP411: Introduction of AI within the Section 14 charging methodologies	Seeks to change Section 14 to include mechanism for how to recover TNUoS charges for AI and non AI elements from initial and later user(s).

What is Anticipatory Investment?
 It's the investment that goes beyond the needs of the initial generator, to build assets required for a **known future offshore project** to allow them to connect at later point in time.

Outstanding policy question that still needs to be addressed:
How should we charge onshore and offshore generators for use of onshore reinforcement (i.e., 'bootstrap cables') in the sea?

Proposed approach: NGESO planning on raising code modification by end of this calendar year with proposed solution.

Comfort Break

Back at 12:15

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DUoS, IDNOs and Residuals

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We have restarted DUoS reform work. In our session today, we want to share some initial areas of interest and provide a space for industry to feed in its views on these areas.

Amidst our ongoing conversations with stakeholders across industry, we have identified a shortlist of reforms to DUoS arrangements that we hope will ensure they are fit for purpose and fully support the energy transition.

In the near term, we will examine:

- Issues with the stability of EHV charges; and
- The costs and benefits of DUoS credit arrangements for generation.

In the longer term, we will focus on:

- Inconsistencies in charging signals depending on voltage and location of connection across T&D;
- The locational and temporal granularity of the DUoS charges at all levels; and
- How costs are allocated between the residual and forward-looking charges.

We are also considering:

- Some work on future-proofing the IDNO model; and
- A post-implementation review of our residual reforms

- 1. Introduction: DUoS and residual charges in context**
- 2. Preview of next phase of DUoS SCR assessments:**
 - i. EHV volatility
 - ii. DUoS credits for generation
- 3. Discuss areas to be considered in a future phase of DUoS reform**
- 4. Discuss other near-term priorities:**
 - i. IDNO areas of focus
 - ii. Residual charging following TCR implementation
- 5. Next Steps**

Forward-looking charges
Signal costs

Residual charges
Recover allowed revenues

Transmission charges
TNUoS
(≈£4.4bn)

Forward-looking component
≈23% of TNUoS

Demand and generation
£1.0bn

Residual component
≈77% of TNUoS

Demand top up to allowed revenue
c.£3.4bn

Residual recovered as fixed charges,
with one band for domestics and
tiered bands for non-doms.

c.12p/day on SC

Distribution charges
DUoS
(≈£6.5bn)

Forward-looking component
£4.6bn ≈73% of DUoS

Fixed and
capacity
charges

Time of
use
charge

Locational
charges
(large users
only)

Residual component
≈27% of DUoS

Demand top up to allowed revenue
c.£1.7bn

Residual recovered as fixed charges,
with one band for domestics and
tiered bands for non-doms.

c.6p/day on SC

Balancing Services
BSUoS (≈£4.5bn)

Volumetric c. £17/MWh on demand

Recovered as a volumetric
charge

c. 1.7p/kWh on all units

Forward-looking charges
Signal costs

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Recover allowed revenues

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Balancing Services
BSUoS (≈£4.5bn)

Volumetric c. £17/MWh on demand

Recovered as a volumetric charge

c. 1.7p/kWh on all units

We are proposing to focus our near term DUoS SCR work on two specific areas of the forward-looking Time-of-Use parts of DUoS

These are:

DUoS credits paid to generators (currently £80m+)

and

Volatility and quality of EHV charges (c.£200m - 3% of DUoS)

Forward-looking charges
Signal costs

Residual charges
Recover allowed revenues

Transmission charges TNUoS
(≈£4.4bn)

Forward-looking component
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(≈£6.5bn)

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Fixed and capacity charges

Time of use charge

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(large users only)

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c.6p/day on SC

Balancing Services BSUoS
(≈£4.5bn)

Volumetric c. £17/MWh on demand

Recovered as a volumetric charge

c. 1.7p/kWh on all units

We are also interested in further understanding how residual recovery will need to respond to the developing system, including increases to the allowed revenues

In addition, we are gathering evidence on updates to the IDNO model.



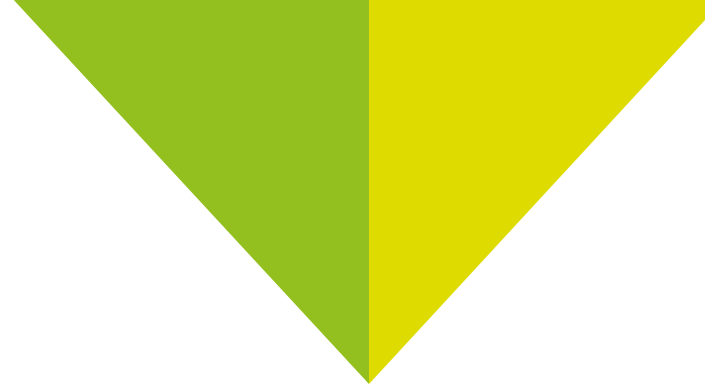
We have heard user feedback that the EHV Distribution Charging Methodology (EDCM) is volatile and lacks predictability. Charges can vary significantly year-on-year, and also change in response to decisions made by other users in the local area.

We have begun discussions with DNOs, via the ENA, on how we can verify this criticism. Our initial work has suggested that there is potentially more work here, but that there does appear to be some basis for these user concerns.

We will be looking at whether changes can potentially:

- provide a more stable charge for large EHV-connected demand and generation sites without changing the underlying cost model; and
- ensure that the charges are produced in a way that signals costs in a way that can be responded to so as to reduce investment costs.

We are particularly interested in feedback from users on whether this is a priority. EDCM charges do not recover a significant amount of money across the system, but we recognise for individual users these are potentially very significant costs. With electrification a likely key pillar of Net Zero transition, we are keen to understand if change here can help users and improve the efficiency of network use and investment.



**Q8) Do you agree with our including this
workstream in the near term?**

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Yes



No





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Q9) If you are an EHV connectee, do you recognise these concerns?

Yes



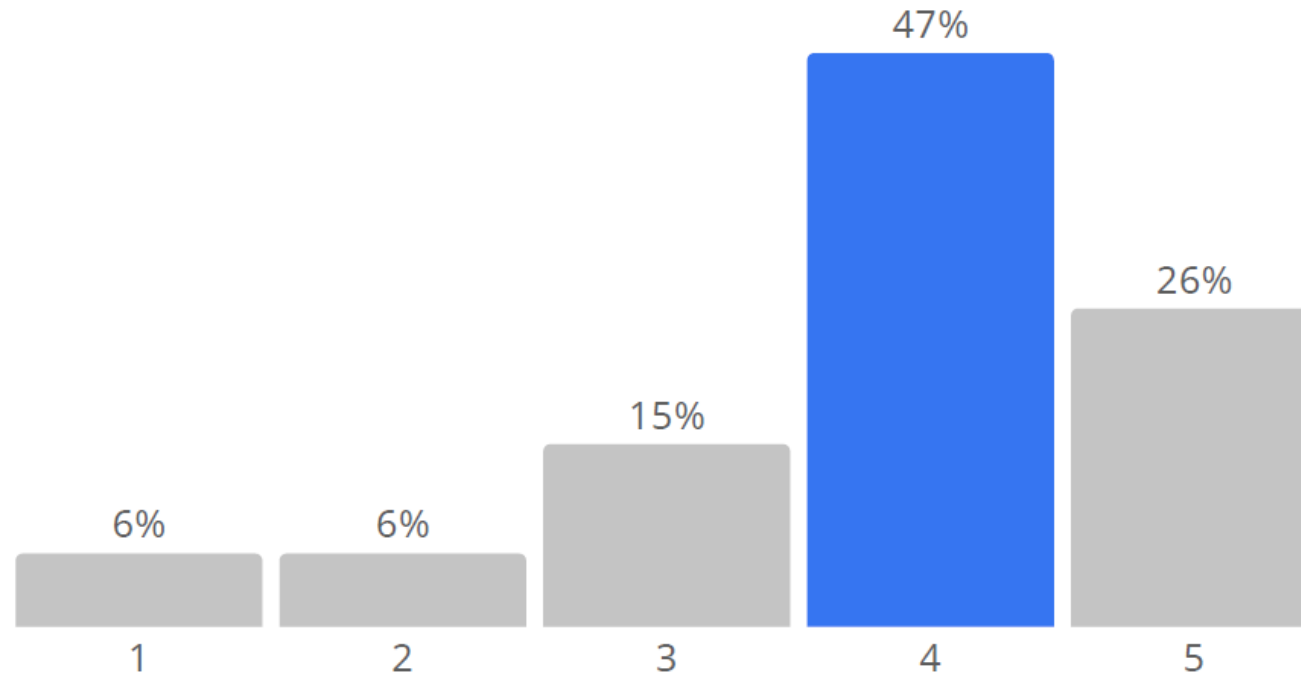
No



Q10) Do stakeholders think there is value in this work?

0 4 7

Score: 3.8



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The CDCM and EDCM charging models provide credits to generation. This is based on an assumption that generation at lower network levels reduces the investment needed where power predominantly flows from transmission downwards.

These payments currently amount to c. £85 million/year today, and we are concerned that this figure could increase to around £220 million/year by 2035. It is debatable whether these credits really reflect benefits to the network in a more dynamic system.

Ahead of what is likely to be significant investment in distributed generation, we think there is a good case for further work to ensure these credits are appropriate and are set a cost-reflective level.

To ensure this action doesn't unduly impact the investment we are open to considering transitional arrangements in the event.

We invite feedback on the existing credits, and evidence on the potential benefits of changes.



**Q11) Do you agree with our including this
workstream in the near term?**

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Yes



No





Q12) Do you have views on the relevance of DUoS credits in a more dynamic system, or one with more market-based flexibility?

0 2 2

- Important to review whether charges, or credits are useful for investment decisions and remove them if they are not useful. If charges are given, important to review whether they are cost reflective.
- PS. In general, DUoS charges/credits set 18 months ahead are not suitable for a dynamic system of the future. Flexibility procurement is needed to solve that issue.
- Credits based on future network create distortions in operational behaviours that are inefficient for current network.
- Alignment with Transmission- investment rather than operational signal
- Scrap credits the market should reflect actual benefits
- Should be network specific, no one size fits all
- Credits should be scrapped, and any benefit deducted from the Fixed Charge. The credits also only apply during certain periods for EDCM connectees
- Credits should be based on capacity for investment decisions, not operational. Charges/credits need to get out of the way of distorting flexibility markets.
- Can't be considered in isolation of TNUoS
- "should be considered in the context of REMA"
- Move towards market based flexibility, rather than static credits
- Is DUoS dynamic enough to reflect actual benefits?
- "DUoS credits, if properly cost reflective based on long run network cost, can provide a reasonable investment signal"
- Make sure T & D Gen face similar signals to locate in same region - otherwise distorts signal
- Low materiality. Leave to flex to recognise benefits where service is needed.
- "Principle of not sending operational signal should apply at both T and D - "



Q12) Do you have views on the relevance of DUoS credits in a more dynamic system, or one with more market-based flexibility?

0 2 2

- DUoS credits are currently based on the inverse of demand charges. They need to be considered together, not piecemeal. The issue is that both D&G are based on an average unit cost which is almost always much higher than actual costs that can be avoided.
- Smaller generation can provide benefits to communities, diversity etc and there needs to be some recognition of this local balancing impact.
- Risk of interaction with ancillary markets and so unknown system effects. Will need to be predictable to mitigate risk for participants
- Credits ought to be as markets based wherever possible to provide for transparency and fair competition.
- "Market based flex should provide the reward, not network charges"
- Consumers will find it hard to grasp being charged to export solar in a gen constrained area.
- Duos credits needs to be abolished.
- Needs consideration alongside REMA outcomes - eg CfD reform, BM reform
- should be scrapped and charging arrangements in line with wider TNUoS tariffs
- Inappropriate



We have considered the case for a number of other work items we think could be desirable in the longer term, but have decided against progressing at this point:

- A review into the differences in signals present at transmission and distribution for various users
 - While we think this is important work, we think that it requires ongoing development work on the TNUoS TF and REMA wholesale market reform to be in a more complete state.
- Investigation into potential improvements to DUoS locational and temporal granularity with the models
 - As well as links to TNUoS and REMA work, we recognise there are limits to the available data to produce more granular signals, and there is only limited evidence that sufficient benefits and consumer acceptability could be realised at this point. We hope to revisit this subject in later years, and monitor ongoing trials.
- Work on the allocation of costs within the existing models
 - We think that there is the potential for review of how costs are allocated within the models, and that there may be benefits to further work here. In particular, it may be possible to ensure that the level of costs consigned to residuals remains proportionate. We hope this work will be possible in the short-to-medium term, though not immediately



Q13) Do you agree with our longer term work suggestions?

041

slido

Yes



No





Q14) Do you think any of this could be delivered in another way more quickly?

0 1 4

- Develop DUOS TF alongside TNUOS TF work or get properly serious on an SCR rather than merely kicking the can down the road ... again
- no - open governance too piecemeal, and subgroups not well enough resourced
- Important to consider impact on net zero of this work. Risk it takes resources away from bigger scale issues
- SCR can be a very slow process - with a very congested delivery phase! Please do not rush implementation which can lead to piecemeal changes to undo some of it (TCR). Give industry more time to implement it properly.
- I can't see how a decision on generator credits can be made without the network information being available. Can DNOs be more open?
- More emphasis on simplicity in the solutions
- Core to Ofgem's role, but DNOs could bring forward pragmatic improvements/options for Ofgem to consider.
- Yes, raise change proposals and let's get on with progressing them via open governance.
- Cost allocation is a central topic for DUoS. Needs to be part of the discussion alongside credits and residual.
- allow code change to take place on wider issues in the interim
- An Ofgem TCR policy evaluation would be useful.
- no, desirable to be implemented alongside MWHHS and other longer-term changes
- No - this is complex work and needs to be appropriately resourced by Ofgem
- It's not clear what you plan and over what timeline



Q15) Do you consider there to be any other pressing issues in DUoS that should be considered for action in the near, medium or longer term?

017

- EDCM models need to be available to industry parties to review and verify. Why are they hidden behind an iron curtain when most of the sensitive data is already published publicly in the Capacity Register
- Is Ofgem concerned by Energy Act proposals to remove network charges from Energy Intensive Industries, to be subsidised by other users? Will this remove the point of cost-reflective EHV/Tx charges?
- A review of charging methodologies for EHV as well as HV/LV
- Agree strip time of use elements - keep simple. Market mechanisms, flex services, and ESO/DSO should do operational signalling.
- Interactions of DUOS and local flex markets
- IDNO arrangements (see it is in motion). Keep it generally simple. These are largely fixed costs but should provide a simple signal too.
- High fixed costs burden to customers with high ASC and low load factor. DCP412 tries to help but the scope is not wide enough
- work with forthcoming MWHHS to reveal clearer signals to resolve congestion (locational and temporal signals)
- Improve predictability of EHV users
- new connection charging boundary removes excess capacity uplift - may need to be reviewed



Q15) Do you consider there to be any other pressing issues in DUoS that should be considered for action in the near, medium or longer term?

017

- Remove time of use charges from flexible assets because these distort operational dispatch and distort markets for all other users. Provide charges based on capacity instead, like TEC for TNUoS
- "A single residual charge for all domestics regardless of ability to pay is regressive. Is Ofgem confident that central government policy is sufficient to unwind its incidence?"
- consumers require predictability and stability
- Alignment with TNUoS, especially in light of the changing system, REMA etc
- How new RSP will be involved in these decisions
- GSP_Cs issue of negative residual causes incorrect price signals, its better to connect a large supply even if not needed
- IDNO profits are directly determined by host DNO charges/DUoS methodology. Where do the profits go? What benefit do consumers get? Reg framework in need of more fundamental review.
- Demand charges for smaller consumers - encourage consumption away from local peaks
- Complexity of charges, for all levels of DUOS users
- proper excess capacity charges
- Dynamic congestion pricing (DUOS) needs investigation

The IDNO regime is lighter-touch, and was established to inject competition into the connections and distribution arena. A decade after its inception, across GB, c.1.5 million consumers are now connected to the electricity system via IDNOs.

We published an open letter on 19 October setting out some of our concerns around the IDNO sector and calling for input from stakeholders.

We want to ensure that we keep this important part of the regime relevant and heading in the right direction as we move toward Net Zero. IDNOs are increasingly pursuing opportunities to connect larger customers at higher voltages. We are considering whether there need to be changes to regime for these types of networks where the relative price control does not provide a charging or revenue framework.

The open letter can be found [here](#) and we welcome feedback until 1 December 2023.



Net Zero means network investment will rise, meaning the issues that prompted our TCR reforms are here for the long term.

We need to continue to ensure that all users of the network make a fair, proportionate contribution to those costs as the system changes.

While we have addressed some distortions that were driving up system costs, the move to fixed charges has impacted some user groups. We are proposing to carry out some post-implementation analysis looking not only at how the residual recovery reforms have gone, but how they may need to change in the light of larger allowed revenues and new technology. We are particularly mindful of the potential for new distortions to emerge, but also for the need for charges to be stable, predictable and fair for **all** users.

Modifications are underway to look at peaky sites and EV charging. These have our full attention. We are open to feedback on further changes, if needed.

We welcome feedback from users on how they think residual recovery will need to adapt in the future, and how it interacts with key areas such as planned network investment, complex sites and consumer vulnerability.



Q16) Do you have any other feedback on the DUoS or Residual Charging arrangements, or adjacent areas of the arrangements, such as connections, Private Network arrangements or complex sites?

027

- Complex Metering arrangements are being reviewed, but the application process needs to be considered and made easy for customers to apply for it
- Bigger Q here - this is about how exponential cost increases will be shouldered by today's consumers and whether this is possible/sustainable. This component of the bill will grow significantly.
- Inconsistency in application of charges from one DNO region to the next needs addressing.
- Demand DUoS already has revenue recovery roughly 50:50 between residual and locational. Demand TNUoS should move this way as well, such as new Reference Node mod to increase locational demand charges to put more demand TNUoS onto demand locational instead of demand Residual
- More granularity for domestic charges
- All this needs to fit together into a holistic approach people understand that leads to fair charges - all getting too complex
- What confidence is there that locational signals are appropriate for most users? Householders, SMEs and beyond have many drivers for location & it feels like electricity charges are some of the least among them.
- The scope feels more like sticking plasters which will eventually create more issues. Fix it at source.
- Is there a general move towards encouraging local renewables to be used to nearby customers?
- We'll consider with colleagues (Energy Systems Catapult) who are working with public sector sites decarbonisation as to whether there are issues to feed in on charging for complex sites
- surely the electrification of the system was thought of when TCR was decided though...feels like we are undoing it as it is proving unpopular.
- Conduct a review of charge avoidance, and engage DENZ on similar bad incentives due to how final consumption levies are charged.
- "As per T reform, the view of what is ""fair and proportionate"" must be in context of future net zero whole energy system."
- Definition of single site needs reviewing
- Clarity around what is LV Sub vs LV Site is needed. Every region has different rules, and its impossible to predict how it will be treated from one day to the next



Q16) Do you have any other feedback on the DUoS or Residual Charging arrangements, or adjacent areas of the arrangements, such as connections, Private Network arrangements or complex sites?

027

- The domestic residual is contentious. Mirrors a poll tax. Whether this is appropriate depends entirely on whether central government are properly managing equity implications. Could network companies agree on a systematic way to reallocate sunk costs away from those who are least able to pay?
- Capacity charge recovery for site specific sites, volumetric for domestic and small non dom
- More residual are effective if you are wanting higher utilisation- is that still a key objective?
- DUoS credits for HV connected flexible generation assets are a key investment driver / price signal for bringing new assets to demand congested areas and HV & below.
- Can you say more on post-implementation review of TCR
- What is the outlook for Private Networks and where do they diverge from IDNOs?
- If EV chargers are added to a Generation or Storage site for engineers to use, it becomes Final Demand? Disincentives greening the van fleet
- The TCR should be reopened- costs are now expected to be far beyond what was assumed in the impact assessments
- Can you say more about the principles that will fairness and proportionality?
- The fact that the split between fwl charges and the residual differs a lot between DNO areas isn't helpful.
- are we undoing the TCR because some parties are disadvantaged? we knew there would be mixed impacts all along
- "residual charging for storage with small amount of final demand needs reviewing(can't submit declaration, but then banded based on storage demand)"
- Whilst the quantum is so large, all these piecemeal changes do is make the pot bigger for other users to pay. Focus on making the quantum smaller to reduce the incentive at play.
- residual volumetric like BSUoS, fairer for PPM and other customer types
- It's too complicated and difficult for users to work out what they are likely to get charged over the lifetime of a project and how to minimise that.
- Residuals should be made more difficult to avoid, such as gross final demand, so BTM generation is not netted off
- "what principles will guide what is fair and proportionate?"

Next Steps

- We aim to consider your Slido feedback on the items we have discussed today.
- We also invite brief feedback from those who could not attend today to duos@ofgem.gov.uk until 17 November 2023
- When we have considered the responses received via Slido and email, we aim to publish a brief note confirming the work package with fuller timescales. At the present time, we intend the first phase of DUoS reform work to cover EHV charges and DUoS credits, but we will consider feedback on this scope of work.
- We aim to follow up with initial analysis of the selected issues and invite further industry responses early next year.

More broadly, as set out in our recent press release on our new Customer Services Standards for energy suppliers, Ofgem will shortly be seeking views from consumers, charities, energy suppliers and customer representatives on standing charges, and we expect to contribute to this work from a network charging perspective.

Regarding IDNOs, please read our [IDNO Open Letter](#) and consider providing feedback to us before 1 December 2023. We will consider the responses and make a decision on whether any action is needed.

Ofgem is the Office of Gas and Electricity Markets. We are a non-ministerial government department and an independent National Regulatory Authority, recognised by EU Directives. Our role is to protect consumers now and in the future by working to deliver a greener, fairer energy system.

We do this by:

- **working with Government, industry and consumer groups to deliver a net zero economy at the lowest cost to consumers.**
- **stamping out sharp and bad practice, ensuring fair treatment for all consumers, especially the vulnerable.**
- **enabling competition and innovation, which drives down prices and results in new products and services for consumers.**

Closing Remarks and Next Steps

Eleanor Warburton