



Member update - Ofgem Access SCR

Dear colleague,

How much we pay for connecting to the distribution electricity network is changing. And we could see some - potentially significant - positives for net zero from 1 April 2023.

The much-delayed Ofgem minded-to decision on distribution electricity network access was released today and within it there are some positives – though caveated – for helping the electricity networks to be enablers for net zero.

The minded-to document can be found [here](#). Ofgem are seeking responses by 25 August 2021. Below, we summarise some of the key points and implications of the proposals. Regen will be responding to the consultation and we are keen to hear from members who are interested in the topic. Please contact pmaltby@regen.co.uk if you would like to have a chat about the implications.

Many thanks,
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A little bit of background: Ofgem launched the [Charging Futures](#) process in 2017 to review how we pay for the network and ensure that how and what we pay supports efficient, flexible use and development of the network, and that it achieves the UK's transition to net zero carbon at least cost.

Rather than a single process, changes to network charging are being undertaken under a number of different workstreams and initiatives, some of which have already been implemented. This makes the topic of network charging a very complex agenda with lots of moving parts. The Targeted Charging Review (TCR) decision was announced in 2020 and changes how we pay for the residual (fixed) charges on the network.

The Access and Forward-looking Charging Significant Code Review (SCR) has been looking at what we pay for new connections and the forward-looking costs, which are the costs of the network influenced by what users do (e.g. non-fixed network charges). The announcement today covers, mainly, the Access part of the review, with changes to the forward-looking charges postponed until a potentially bigger review of Full Chain Flexibility has taken place - Regen is involved in the Forum focused on shaping this.

So, in summary, there are three parts to the announcement on the Access part of the Significant Code review.

1. The big one – distribution network connection charges.
2. Improved definition and choice in access rights (levels of firmness and time of access).
3. Ongoing transmission network charges – charging TNUoS to distribution generators above 1 MW.

Distribution network connection charges

It's all going shallower – making it cheaper to connect to the distribution network.

At the moment, both demand and generation customers are required to pay a proportion of the cost of network reinforcement triggered by their additional demand. So, connecting electric vehicle chargers or a heat pump – and any form of generation in a constrained area – could land you with a very big bill to upgrade the local electricity network at your voltage AND the one above.

Rather than giving a good locational signal as is oft quoted, Ofgem have recognised that: *“The current arrangements hinder the efficient development and investment in distribution networks. While other factors such as uncertainty around the ability to recover sunk investment will also have an influence, **they contribute to DNOs taking an incremental and reactive approach to reinforcement as the means of facilitating new connections, rather than investing in light of anticipated wider network needs.**”*

Big cheering all round.

The key announcement is the intention to move to fully shallow charging for demand and make this shallower for generation from 1 April 2023. Overall, this should provide the welcome outcome of reducing the upfront connection costs for all new connections to the distribution network.

“3.21...We are minded to: remove the contribution to reinforcement within the connection charge completely for demand connections; and reduce the contribution to reinforcement within the connection charge for generation connections.”

So there is very good news for new electricity demand, but caveated good news for generation.

Why is it only shallower for generation?

The retention of a level of reinforcement for generation is justified by *“Going further and removing the contribution to reinforcement from generation connections would, in the absence of DUoS reform, mean that these users do not face any signal about the costs they put on to the system. This is because generation currently receive DUoS credits and do not face charges, even in areas where they are driving costs.”*

We can see the logic in this but would hope that is a decision that might be revisited if and when DUOS is fully reviewed.

What about storage?

The proposed answer to connection charges for storage is quite simple.

"3.26. We do not therefore propose any change to the approach of treating the import and export components of storage separately. This will mean that storage connections would not face any contribution to reinforcement where it is being driven by the demand capability, and a reduced contribution where driven by the generation capability"

Retaining the high cost cap for generation – but how?

Another key question about how good this is for generation is the continued application of the High Cost Cap and importantly and how it will be applied. This is defined as being above £200 per kW of capacity. Some key questions about how this may be applied are explored in Appendix 1 (p.83).

Ofgem are asking whether to apply the cap only to the same voltage level to match the change to the shallowness (a bigger positive for generation), or to maintain this as applying also at the voltage level above.

We think that this is a key point for the consultation and for members to respond to. Ofgem seem to be in favour of the latter, but this does raise a problem about strategic network upgrades, which are expected to be a key benefit from this change - this exact cost may be difficult to delineate, particularly at the voltage above connection.

"Question 3e: What are your views on whether we should retain the High Cost Cap? Is there a case for reviewing its interaction with the voltage rule if customers no longer contribute to reinforcement at the voltage level above the point of connection? (p.30)"

An interesting note on p.83 is also the sentence *"While it is rarely triggered, our understanding is that the HCC is a useful tool in early discussions with potential connectees."* – it seems this is a key tool for DNOs 'putting off' projects. A good reason perhaps to remove it.

Another key question for members and responses should be about timescales for connections.

An omission from the detail of the proposals is about the timescales for connections. New customers that are currently paying (in some cases a lot) for their connection are, on the plus side, given a clear timescale for when they can connect. In this new world you would expect the network to collate together requests and upgrade more strategically for both generation and demand.

But what 'evidence' are Ofgem going to ask for to allow DNOs to do this? And does this new process mean delays for these individual connections?

How this process is developed by DNOs and Ofgem will be critical to making these changes a step forward rather than backwards.

A fudge on changes to contribution to transmission reinforcement.

Despite recognising the unfairness of the fact that large, distributed generators face a charge for upgrades to transmission network which have been triggered by their connections (and transmission generators do not), this decision has been deferred until the wider review of transmission charges and flexibility takes place – potentially leaving a big cost still being faced by the biggest distribution generators.

"Customers seeking to connect to the transmission network currently face a shallow connection charge. Conversely, Transmission Attributable work (e.g. upgrading a Grid

Supply Point) that has been triggered by a distribution connection is currently charged to the individual connection customer as part of the DNO's connection charge. This can result in an upfront cost that is prohibitively expensive, may adversely influence investment decisions, and prevent connections from going ahead for what is work that would arguably benefit many consumers."

"We also note in Chapter 5 that there is increasing evidence for a wider review of TNUoS charges. It may therefore be that another approach is more appropriate and making a change now would preclude possible options in the future. For these reasons, we are not minded at this time to make any changes to the treatment of transmission work triggered by a distribution connection." (p.40)

Improved definition and choice in access rights

Broadly positive on improved definition and choice of access rights.

Another thing that might provide opportunities for cheaper new connections is that Ofgem are minded to introduce improved definition and choice of access rights.

Essentially, they want to see an evolution of Active Network Management and open-ended constraints. From April 2023, DNOs will be expected to give certainty on the level of firmness of flexible connections – and by definition compensate users if those levels are breached.

"We consider that new time-profiled access options at distribution could lead to more efficient use and development of system capacity. Identifying when users will have access to the network provides certainty for users and a wide range of stakeholders have repeatedly stated that this access right would be useful for them."

So essentially there could be potential for a cheaper or lower connection charge if users agree to limit their usage to particular times (of day or seasons is to be confirmed).

They recognise, however, the potential interaction between the shallower charges making the flexible access rights less attractive, but the potential they could still be a useful tool for new generation where a level of reinforcement cost will still be liable to individual projects or there if it facilitates faster connections, with potential to get firm access at a future point.

"4.21. However, these connection customers may still choose an alternative access choice if it helps facilitate quicker connection to the network. This could enable an earlier connection while the DNOs increase network capacity (e.g. via reinforcement or flexibility procurement), with the customers able to then have standard access from that point."

Ongoing transmission network charges – charging TNUoS to distribution generators above 1 MW.

Scotland could see a hit (in the future) with TNUoS (transmission) charging for Small Distributed Generation.

The final part of Ofgem's proposals is the confirmation of their intention to charge TNUoS to small generators above 1 MW and to remove the 'cap' on charges for generators under 1 MW.

Although not strictly part of Access, Ofgem are clearly keen to signal this intention which could have negative impacts on generators in Scotland in particular.

“5.2. We think the differences in the charging arrangements for different types of generators create a boundary distortion that can lead to inefficient decisions about where generation should locate.”

“5.22. Our analysis, based on connected generators, indicates there is 5.6GW of renewables (4.3GW of wind, 0.4GW of solar, 0.3GW hydro, and 0.6GW biomass) and 0.9GW of storage which will see TNUoS costs increase under our reforms. The impact is expected to be greatest in Scotland, because SDG currently have their charges capped at zero. Conversely, in more southern regions, moving to TNUoS generation charges would lead to lower charges or even an increase in credits for approximately 10GW of renewables (largely solar).”

However, the proposals also give these smaller generators a reprieve – to allow for a wider review of TNUoS charges, flexibility and how they are calculated.

*“5.33. We are currently undertaking wider strategic work on approaches to delivering Full Chain Flexibility, including the role for network charges. As described above, we are currently minded to signal that the boundary distortion should be removed, **but delay implementation until there is greater clarity around the direction of travel for network charges.**”*

How long this will take is anyone’s guess, but getting the SCR review to this partial minded-to stage has taken over three years.

There are questions raised in the review as to how these charges might be levied on small distributed generation, who do not have an agreed capacity at transmission, either directly or through a supplier.

“5.27. Currently, SDG users do not generally have explicit agreements with the ESO and are instead charged via their supplier for their volumes exported. This means there will need to be a change to the current arrangements to enable the ESO to recover charges for use of the transmission network.”

So continuing uncertainty here but potential for changes to the methodology to mitigate some of the impact on Scottish generators.

An additional proposal is to remove the ‘inverse demand charge’ cap from generation under 1 MW, where they currently do not face charges. This could also introduce significant charges onto some small generation far from demand.

“5.13. For these reasons, we think that 1MW represents a practical threshold for determining which SDG should face TNUoS generation charges.

5.14. Generation under 1MW will continue to face the inverse of demand charges under the EET. However, these are capped at zero, preventing SDG in areas located far from demand facing charges. The cap exists to prevent dispatch distortions in areas of high transmission charges caused by the use of inverse demand charges. We think the presence of the cap is not likely lead to efficient use and development of the network, and therefore think the charging cap should be removed”

