

January 2018

Purpose of this note

This is background information on Ofgem's Electricity Network Access project, summarising Ofgem's working paper on Access and Forward Looking Charges - which you can find [here](#).

Two Charging Futures Task Forces have been set up to consider access arrangements, and forward-looking charges. You can find more information about those Task Forces [here](#).

Executive summary

Ofgem are considering whether it would be in consumers' interests to change:

- › the arrangements for how users gain the access they need to the network to either export or import power, including both the nature of their access rights and how they are obtained
- › connection charges that are paid by new generation or demand connection to the transmission or distribution network
- › the 'forward looking charges' element of Transmission Network and Distribution Use of System charges that recovers future costs of both networks; and
- › the approach to recovering the costs of transmission constraint management through the Balancing Services Use of System charge.

What's driving change?

The energy sector is undergoing fundamental change. In electricity, the generation mix has changed significantly and will continue to do so. An increasing amount of generation is connected to the distribution networks, rather than the higher voltage transmission network. The way consumers, both businesses and households, want to use electricity is also changing. Many more consumers of electricity also want to generate it, or store it - changing how much electricity they take off the network, and when they do this. New technologies, such as electric vehicles, could add major loads to the system, but at the same time have the potential to be managed smartly to support network management.

The regulatory and market arrangements will need to evolve to ensure this change happens in a way that protects and advances consumers' interests, and lets them benefit from innovation and new services.

A very important element of these arrangements is how people get access to the networks, and what they pay for this. If we can ensure that these terms promote efficient connection and use decisions, overall costs for consumers are likely to be lower than they would otherwise.

What are the current arrangements?

Access

For many users there is no choice, or a poorly defined choice, of access options. Access rights are generally allocated on a first-come, first-served basis, and are not readily tradeable or transferable to another user who might wish to use them. As a result, some users may face disadvantages in seeking to get access to the system, and existing capacity may not be being used efficiently.

Connection to the transmission network generally provides 'financially firm' access, whereby the generators are paid by the SO if they need to be curtailed – meaning they are prevented from putting electricity onto the network. Under the 'connect and manage' approach, allowing more connections onto constrained areas of the network can only be achieved by increasing costs to the SO, which are consequently passed on to consumers.

At distribution level, DNOs are increasingly offering non-firm (flexible) connections in constrained parts of their network. Ofgem welcome these as a means to unlock more network capacity and provide quicker and cheaper connections. Ofgem now want to consider whether arrangements can evolve to allow for more efficient allocation of firm and non-firm access, rather than based on the order in which users are connected to the network, and provide a better signal to DNOs about where there is a case for network upgrades.

Electricity network users provide an ongoing financial commitment to the network investment they trigger. These contributions differ between electricity transmission and distribution, due to differences in the extent of upfront connection charges.

Forward-looking charges

Currently, the models used to generate the forward-looking charges for distribution and transmission work quite differently.

While there are locational signals in transmission charges, distribution charges (except for those connected at extra high voltage level) only provide a generic signal that varies by voltage level across a DNO area.

The time-of-use element of network charges works differently for transmission and distribution charging. For example, half-hourly settled demand customers on the transmission network are charged based on their use during 'triad' periods, whereas on a distribution network they would be charged differently for use during defined 'Red-Amber-Green' or 'super-Red' periods.

Transmission-connected generation pay generation network charges related to their agreed entry capacity. Forward-looking distribution charges on generation are, in aggregate, offset by credits. We think there is a need to review this given that increasing distributed generation may increase distribution network costs in certain locations.

How might these arrangements develop?

Access

New access arrangements could offer more choice for how consumers and other users can gain access to the system - leading to more efficient use of the network. For example, a user who is willing to bear a certain level of interruptions to their network access at certain times could pay less than another user whose access terms include compensation when their access is interrupted.

Other choices could involve;

- › buying a right to use the system to trade only within a local area, rather than across the national market,
- › short-term and/or long-term rights
- › peak and/or off-peak access.

Further options would be to move away from a first-come-first-served approach to one where access rights (covering a specified time period) are allocated in periodic windows. It could also include a new approach that facilitates reallocation or trading of access rights between parties.

It could also be more beneficial to have a harmonised approach across transmission and distribution as significantly different approaches taken across different voltage levels may distort investment and operational decisions, with a knock-on effect on consumer bills.

Forward-looking charges

Changes to forward looking charges could lead to more effective ways of reflecting network costs to users of the system. This could allow users to adjust their behaviour leading to more efficient use of the network.

Options for reviewing forward looking charges involve changing the basis of these charges to focus more on the drivers of network costs. For example, they could be set to reflect a user's maximum usage during constrained periods, rather than total usage over a longer period.

Ofgem and the Forward Looking charges Task Force are also considering whether there would be benefit in increasing the granularity of the locational element in some network charges, or introducing locational elements in charges which do not have them at present.

Again, there may also be benefits in harmonising the approach taken across different voltage levels.

Signals sent through access arrangements or network charges have the potential to enable the market to respond more dynamically to changing system needs, thereby reducing the need for the SO and DNOs to actively procure flexibility to manage the system. As part of our review we will be considering the extent to which these types of

signal can provide a more effective route to bring forward flexibility cost-effectively rather than principally relying on procurement by the SO and DNOs.

However, alternative ways of providing signals are unlikely to provide all the flexibility that the SO and DNOs need. It will always be possible that the SO and DNOs will need to procure some flexibility directly.

What are the next steps?

Ofgem has set up two Task Forces under Charging Futures to consider these two aspects of network access:

- > Access Task Force
- > Forward Looking Charges Task Force

Ofgem will use the Task Forces' output and wider engagement to inform their initial proposals for any reform, if needed. For any proposed reform, Ofgem will consult stakeholders next summer.

The Task Force progress, members and Terms of Reference can be [found here](#).

How can you get involved or find out more?

Contribute

- > There will be workshops on the Access work in the coming months - these will be publicised on the Charging Futures website.
- > This work will be discussed at future Charging Futures Forum meetings.

Learn

- > The working paper on Ofgem's Access work can be found [here](#).
- > You can keep up with progress in the Task Forces via the charging futures web portal [here](#).

Ask

- > You can contact Ofgem directly on Access and Forward-looking charges via NetworkAccessReform@ofgem.gov.uk.
- > You can contact the Energy Networks Association, which is acting as the secretariat for the Task Forces via chargingtaskforces@energynetworks.org