21 March 2024

Making a positive difference for energy consumers

Response to open letter on regulatory arrangements for independent distribution network operators

In this document we summarise the responses to our October 2023 open letter on regulatory arrangements for independent distribution networks operators (IDNOs) and outline next steps.[1] That open letter signalled some concerns we had with the current arrangements, particularly for extra high voltage (EHV) connections.

We acknowledge the benefits of IDNO connections at EHV, but consider that regulatory arrangements should be clarified given EHV activity was not originally envisioned for IDNOs when the arrangements were set up. In light of responses to the open letter, we are prioritising clarifying arrangements for EHV charging for IDNOs both embedded in a distribution network and for those directly connected to the transmission network. We want to act swiftly to address key areas of uncertainty, so the initial focus of our review will be targeted on EHV:

- Examining options to make EHV charging more transparent, and
- Clarifying charging arrangements for IDNOs connecting to the transmission network, particularly for the recovery of residual costs.[2]

Our open letter and Draft Forward Work Programme sought views on a possible wider review of the regulatory framework for IDNOs.[3] The responses to the open letter and Draft Forward Work Programme will help inform the scope of on any wider review.

The remainder of this document provides key background, summarises the responses and explains how we reached these conclusions. The annex includes a summary of responses to the two specific questions we posed. We have published non-confidential responses alongside this document.

1. Background to the independent network operators' regime

Distribution Network Operators (DNOs) are licensed companies that own and operate the network which distributes electricity to homes and businesses in GB. There are 14

[1] Open letter on regulatory arrangements for independent distribution network operators | Ofgem
[2] Use of system charges can be divided into two elements: 'forward-looking' charges that are designed to ensure network users receive signals that are reflective of the costs of how and when they use the network, and 'residual' charges that are designed to recover the rest of the relevant network operator's allowed revenues once the forward-looking charges are levied.
[3] Consultation on Ofgem's draft Forward Work Programme for 2024 and 2025 | Ofgem

geographically defined regions for electricity distribution, each with its own licensed DNO. DNOs recover the costs of running their network by charging Distribution Use of System (DUoS) charges.

There are some smaller networks connected to the DNO network, which are owned by licensed distribution network operators (LDNOs). A LDNO can be either an IDNO or a DNO operating outside of its own region.

Historically, LDNOs have provided the 'last mile' of the distribution network, linking the existing DNO network to new, typically domestic, consumers (for example, in newly built housing developments). In 2004, we issued the first licences under the IDNO regime. In the same year, we consulted on the appropriate long term regulatory regime for IDNOs; the main aim of the review was to develop sufficiently robust long-term arrangements to protect the interests of consumers.[4] We noted at the time that 'potential IDNOs will operate electricity distribution networks which will predominantly be network extensions connected to existing distribution networks, e.g. to serve new housing developments on both greenfield and brownfield sites.'

That review introduced the 'relative price control' regime in 2006. The DUoS charges that the LDNOs pay to the respective DNOs to operate within their regions are discounted to reflect the fact that the LDNO provides the 'last mile' of the distribution network. Under their licence, LDNOs may charge their domestic customers no more than the equivalent DNO tariff. The potential margin available to an LDNO is dependent on the difference between the equivalent DNO tariff and the discounted LDNO tariff.

In the intervening years, the role of LDNOs has evolved, including serving a more diverse range of customers, beyond domestic demand, to incorporate larger loads as well as generation, and at higher voltages.

The way in which DNOs calculate their DUoS tariffs for Low Voltage (LV) and High Voltage (HV) connected customers is governed under the Common Distribution Charging Methodology (CDCM). These charges, and the models that produce them, are published annually, providing transparency of tariffs for different customer types at LV and HV voltage levels, for each of the 14 DNO areas in GB.

While only domestic charges are regulated by the IDNO licence, the obligation on IDNOs to avoid discrimination,[5] and their requirement to publish a charging methodology, meant that we considered that the arrangements provided some protection to non-

[4] Regulation of Independent Electricity Distribution Network Operators - consultation paper | Ofgem
[5] SLC 19. Prohibition of discrimination under Chapters 4 and 5.

domestic customers.[6] In practice, IDNOs tend to mirror the host DNO's charges for all LV and HV customers.

2. Recent developments in LDNO arrangements

In the past few years, some LDNOs have started connecting EHV customers where there is limited opportunity for relative price control. This is because the EHV Distribution Charging Methodology (EDCM) provides site-specific charges using a model that is not publicly available owing to commercial confidentiality. The LDNO is not able to mirror the host DNO's equivalent charges if it does not know what they are.

Instead, those LDNOs have produced their own charging methodologies to calculate charges for EHV customers, which they submit to us for approval. The total charges faced by customers are a combination of the boundary tariff (charged to the LDNO for use of the DNO network) plus the charges calculated by the LDNO's own methodology for use of the LDNO network.

In addition, in recent months, we have been made aware of LDNOs seeking to connect directly to the transmission network rather than the original intention of being embedded within an existing DNO network. In such instances, there is neither a host DNO, nor a set of DNO equivalent charges to mirror.

With a growing number of EHV customers potentially connecting to LDNOs (either via a host DNO or directly to the transmission network), our open letter highlighted three concerns about the appropriateness of the existing regulatory arrangements:

1. Without a reference point for setting tariffs, we were concerned that connecting customers may be exposed to undue risk where long term contracts are agreed under these arrangements.

And specifically for LDNOs seeking to connect directly to the transmission network:

2. Fair recovery of shared network costs among all customers may not be possible. We understand that the proposed arrangements are partly driven by the potential opportunity for reduced network charges for connecting customers.
3. Some connection configurations may not be as shareable or economic and efficient as other options, and significant differences between DNO and LDNO solutions may give rise to higher overall whole system costs.

[6] Regulation of Independent Electricity Distribution Network Operators | Ofgem

In our letter we stated that we are considering a review of the benefits of competition from LDNOs in EHV connections (including those directly to the transmission network). This was in light of the evolving nature of the LDNO arrangements, and the recent developments relating to serving EHV customers and connecting directly to the transmission network in particular. We added that the full scope of any such review is yet to be determined, and will be informed by the responses we receive to the open letter.

Our open letter sought responses on two questions:

1. What do you consider to be the pros/cons of IDNOs connecting EHV customers embedded within distribution networks?
2. What do you consider to be the pros/cons of IDNOs connecting directly to the transmission network?

3. High level summary of responses

We received responses from 22 different organisations to our open letter, including 17 non-confidential responses, which we have published alongside this letter. Responses were most commonly from network operators, but we also heard from customers and other industry stakeholders. In this letter we focus on the responses relating to the three 'concerns' that we raised in the open letter and our proposed next steps on each of these issues. We also cover more general comments on the scope of any review. We provide a summary of the pros and cons highlighted by respondents in the annex to this document.

Broadly, IDNOs were keen to emphasise the benefits that they think they bring to the market and are keen to be able to continue offering their services and to expand their markets. They consider they offer benefits to customers not available via DNOs or private networks.

Customers (both demand and generation) highlighted the benefits they receive from the competitive pressures on networks that IDNOs bring, particularly through asset adoption payments.[7]

Other networks (non-IDNOs) raised concerns that the lighter touch regulatory regime for IDNOs compared to other regulated networks may no longer be appropriate in a mature market. In particular, they considered that the relative reduced level of scrutiny of

[7] Unlike DNOs, IDNOs can use future network revenues to help subsidise the initial costs of new projects through these asset adoption payments, which result in a discount to capital expenditure for the developer.

IDNOs to other regulated networks and the ability of IDNOs to offer asset adoption payments were no longer appropriate in a mature market.

Overall, there was general support for more clarity on regulations, particularly in the area of LDNOs directly connecting to the transmission network. A number of respondents emphasised the benefits of a focused review on EHV issues (particularly charging) to provide timely certainty without unwinding existing contracts. They considered this preferable to a more wide-ranging review that could increase uncertainty at a crucial time. In contrast, some other respondents supported a more wide-ranging review of regulatory arrangements for LDNOs, beyond EHV-related activity.

4. Responses to concerns raised and proposed next steps

Concern 1

In our open letter we stated that for LDNOs connecting EHV customers:

Without a reference point for setting tariffs, we are concerned that connecting customers may be exposed to undue risk where long term contracts are agreed under these arrangements.

Open letter responses

Responses on this concern principally came from IDNOs, most of which considered that we had misrepresented this issue. Their responses focused on four key points:

- EHV charges for embedded IDNOs do rely on inputs from DNOs.
- IDNO EHV charging methodologies are subject to Ofgem approval.
- They considered there was no greater customer risk from IDNO methodologies than from the site-specific charges from DNOs.
- That EHV customers are generally knowledgeable and well-informed given the significant amounts of electricity they typically consume and/or produce.

IDNOs did acknowledge that greater transparency could be beneficial and would be necessary to allow the relative price control to operate as for at other voltage levels. Other respondents also highlighted the value of increased transparency for EHV charges.

Our view

We acknowledge the points made by the IDNOs. We agree that EHV charging would benefit from greater transparency to help alleviate the concern that we have raised.

For EHV charging for LDNOs connected to DNOs, we will be assessing potential changes to the EDCM to the extent to which they improve transparency (among other criteria).

Under our DUoS Significant Code Review (SCR), EHV charging will feature in both our immediate priorities and longer term work.[8] Though not the explicit focus of the shorter term work, the extent to which any proposed solutions to the issues with the EDCM result in more transparency in charges would be welcome. To that end, IDNO representatives are involved in this short-term work. The potential for further improvements to EHV charging transparency will also form part of our assessment for our longer term work under the DUoS SCR.

For EHV charging for LDNOs connected to the transmission network, see our response to Concern 2, below.

Concern 2

In our open letter we stated that for LDNOs connecting directly to the transmission network:

Fair recovery of shared network costs among all customers may not be possible.

Open letter responses

Responses on this concern again came principally from IDNOs, most of which accepted that this is an issue that needs attention. They did contend that the costs that are allocated to the residual in the charging models are not truly shared costs. One respondent also highlighted the importance of considering other alternative arrangements such as private wires connecting directly to the transmission network. Two other respondents highlighted the importance of fairness in reviewing these charges.

Our view

We continue to consider that this concern is an issue that needs to be addressed. For clarity, when highlighting this concern, we were principally concerned with residual charges for final demand customers (e.g. a final demand customer connecting to a transmission-connected LDNO may face only the transmission residual, whereas an equivalent customer embedded within a DNO would face both the transmission and distribution residual).

We would like to work with industry to investigate approaches to ensure fair recovery of network costs for LDNOs connecting to transmission networks, including in comparison to private networks. The allocation of costs to the residual is something that we are

[8] Charging Futures forum | ESO (nationalgrideso.com) – see slides for 21 March 2024.

exploring for both distribution (as part of the DUoS SCR) and for transmission charging (as part of our Strategic Transmission Charging[9] work).

Given the different nature of EHV charging for LDNOs connecting to the transmission network (the absence of a host DNO), we would also like to explore EHV charging in these circumstances more broadly. We would welcome views on an appropriate delivery vehicle to take forward a review of EHV charges for transmission-connected LDNOs, including the fair recovery of residual costs. As this will principally concern transmission charging, we consider that this may be something that could be taken forward under the Transmission Charging Methodologies Forum (TCMF).[10] Please share any views on an appropriate delivery vehicle via electricitynetworkcharging@ofgem.gov.uk.

Concerns 1 and 2 both address EHV charging for LDNOs. LDNOs have an obligation to annually review their charging methodologies and should seek our approval to update them as appropriate in line with any regulatory changes that emerge in response to these concerns.

Concern 3

In our open letter we stated that for LDNOs connecting directly to the transmission network:

Some connection configurations may not be as shareable or economic and efficient as other options, and significant differences between DNO and LDNO solutions may give rise to higher overall whole system costs.

Open letter responses

The IDNOs responding to this concern contested that this would be a problem. They sought further information or evidence from Ofgem that there are specific reasons for IDNO connections to the transmission network to be less shareable or efficient than those of DNOs. They cited that the provisions of the Electricity Act require distributors to make a connection between their network and a premises or another network apply equally to all distributors and see no reason why connections made by an IDNO should be any less shareable or less economic. They added that IDNOs have the same whole system licence condition which is applicable to the DNOs.

One DNO did recognise the concern we raised. It noted the common obligation that IDNOs and DNOs have to develop their networks in an economical, efficient and

[9] Open letter on strategic transmission charging reform | Ofgem
[10] CUSC Forum | ESO (nationalgrideso.com)

coordinated manner. But it considered that, as IDNOs seek points of connection at higher voltages, this becomes difficult to execute, citing an example of the lack of IDNO network information making it difficult to use connections from IDNO networks to support the DNO's network. It considered that IDNOs are incentivised to protect their capacity to enable future development of their networks rather than supporting the customers in the wider area connected to the DNO's network.

Aside from the responses on this specific concern a number of respondents commented on the potential scope of any wider review, covered in Section 5, below.

Our view

The responses on Concern 3 give us some reassurance that this particular issue is not an urgent concern, but it is one that we would seek to investigate further as part of our wider review.

As an initial step, we would like the ESO to inform us of any connection offers issued to LDNOs to directly connect to the transmission network (anonymised as appropriate). This will help us get a handle on the scale of the issue, including with respect to the magnitude of the charging issue referred to above (Concern 2).

5. Potential upcoming review of regulatory arrangements

In our open letter we stated that we are considering a review of the benefits of competition from LDNOs in EHV connections (including those directly to the transmission network). Our draft Forward Work Programme stated that 'we will consider whether there is need to review the regulatory framework for independent DNOs and transmission owners (TOs), in particular for financial resilience, governance and service delivery.'

This section covers responses related to the scope of the any wider review of the IDNO regulatory framework (beyond EHV charging that we are prioritising now, as described above).

Open letter responses

Some respondents considered the open letter introduced unwelcome uncertainty, with a request for providing some clarity on scope soon. There was some support for focusing a review on EHV issues only (some suggesting only for demand) to ensure a speedy resolution.

In contrast, some other respondents supported a wider review, with some support for clarity for overall regulatory arrangements for IDNOs connecting to the transmission network, to increase overall regulatory certainty.

Some respondents questioned the continued appropriateness of the different arrangements applied to DNOs and IDNOs (for example, the payment of adoption payments) now that the IDNO market is far more mature than when these arrangements were first put in place. Some respondents also suggested that private networks should come under the scope of the review as an alternative delivery option to both DNOs and IDNOs. A few respondents also suggested that the potential for Independent Transmission Owners could be considered within the scope of the review.

A few respondents noted the importance of aligning any reforms with the Connections Action Plan[11] and system planning responsibilities. In addition, they noted the importance of ensuring efficient co-ordination between an increasing number of parties.

Our view

We welcome the views expressed to date and will consider these points further, alongside responses to our draft Forward Work Programme, when developing the scope of any wider review. We would seek to ensure that any such review improves arrangements in terms of our principal objective and statutory duties. We are also aware of the value of innovation and competition in seeking to meet government's ambitious Net Zero targets.

Yours faithfully,

Eleanor Wood

Deputy Director, Energy Systems Management and Security

[11] Ofgem and DESNZ announce joint Connections Action Plan | Ofgem

Annex - Summary of responses to specific questions

The tables below highlight the most commonly submitted responses to our question on the pros/cons of IDNOs providing EHV connections. We have only included pros/cons where more than one respondent has included it in its response. In some cases, we have grouped a number of responses under a broad heading. We will consider these responses further when scoping any wider review. We have published non-confidential responses on our website.

1. What do you consider to be the pros/cons of IDNOs connecting EHV customers embedded within distribution networks?

Pros	**Cons**
The simplicity and speed of IDNO connections	Lack of transparency in EHV charges
The ability of IDNOs to pay an asset adoption value has a direct benefit to project costs	Reduced visibility of planned works and lack of futureproofing
Innovation and more flexibility on the choice of plant and equipment	Natural incentive for IDNOs to develop and operate areas of network that have a lower-than-average cost to serve; DNOs left to bear costs with higher-than-average cost, driving up tariffs
Advantage to developers of using a regulated utility to support them in designing, building and operating high voltage assets	
Competition leading to incentives to deliver an efficient service	

2. What do you consider to be the pros/cons of IDNOs connecting directly to the transmission network?

Pros	**Cons**
The simplicity and speed of IDNO connections	Lack of transparency in EHV charges
The ability of IDNOs to pay an asset adoption value has a direct benefit to project costs	Less efficiency in the management of connections than would be the case if these were optimised at DNO level
Innovation and more flexibility on the choice of plant and equipment	Interactivity between host DNO and LDNO networks at these higher voltages will need to be analysed to ensure network integrity is maintained
Advantage to developers of using a regulated utility to support them in designing, building and operating high voltage assets	Potential gaps in industry rules and regulations, to the extent that they exist, such gaps may have arisen as the activities of LDNOs have evolved, without appropriate evolution of the rules and regulations
Competition leading to incentives to deliver an efficient service	
Create the potential to increase overall capacity to connect customers to the transmission system	
Better use of limited transmission connection points, by aggregating several customers together	
More efficient development of new Distribution-Transmission Interface Network Nodes instead of an unregulated privately owned network consisting of transmission and EHV voltages	
Connecting via an IDNO gives developers a simpler connection process, negating the need to go through the DNO to obtain the Statement of Works from the TO	