

Connections end-to-end review consultation - Energy UK response

12.02.2025

Executive Summary

Energy UK is the trade association for the energy industry with over 100 members - from established FTSE 100 companies through to new, growing suppliers, generators and service providers across energy, transport, heat and technology. Our members deliver nearly 80% of the UK's power generation and over 95% of the energy supply for 28 million UK homes as well as businesses.

The sector invests £13bn annually and delivers nearly £30bn in gross value - on top of the nearly £100bn in economic activity through its supply chain and interaction with other sectors. The energy industry is key to delivering growth and plans to invest £100bn over the course of this decade in new energy sources. The energy sector supports 700,000 jobs in every corner of the country.

Energy UK plays a key role in ensuring we attract and retain a diverse workforce. In addition to our Young Energy Professionals Forum, which has over 2,000 members representing over 350 organisations, we are a founding member of TIDE, an industry-wide taskforce to tackle Inclusion and Diversity across energy.

Energy UK welcomes Ofgem's end-to-end review of the connections process. The proposals broadly align with our members views regarding the need to improve that standards of service for connections and incentivise timely and higher quality connections.

We strongly encourage Ofgem to consider the importance of centralised, open-access granular data to improving connection speed and planning and more standardised connection processes. We also strongly encourage Ofgem to not rely too heavily on guidance to sharpen the incentives for network operators. Historically, network operators respond most to clear license conditions and price incentives. These must form the basis for improving the connections process.

If you would like to discuss this response in further detail with Energy UK and its members, we would welcome further engagement.

Tobias Burke,
Policy Manager
tobias.burke@energy-uk.org.uk

Consultation Response**Theme 1 - Visibility and accuracy of connections data and network capacity**

Question 1a. Do you agree with the issues we have set out under Theme 1 - Visibility and accuracy of connections data and network capacity? Are there any other issues under this theme that we should consider or be aware of?

Energy UK broadly agrees that the themes characterising the lack of visibility of connections data and network capacity have been accurately assessed.

Further considerations under this theme must consider broader elements that the industry needs to inform and streamline connections to the network. These considerations include: the location of changes in demand and how policy may affect this; the cost of future network equipment; the need for granular data that is close to the point of final consumption and is openly available; consumer technology preferences and potential resistance to uptake; and the changing role of current and future utility infrastructure, including the future of the existing gas network and role of hydrogen and CCUS.

Progress has been made in recent years regarding the availability of this data at the transmission level thanks to the introduction of new reporting obligations and open data tools like Connects 360. However, the issue of data visibility remains acute at the distribution level, despite individual efforts by Distribution Network Operators (DNOs) to improve data visibility, with efforts to date inconsistent, slow and often insufficiently granular.

To efficiently schedule upgrades closer to demand, a developer needs to know the available network capacity and typical energy flows, what assets are connected to the network, when new assets will be connected to the network, and the likely behaviours of those assets. For domestic assets like heat pumps and electric vehicles, this means having insight into what consumers will buy and when.

A key theme on visibility that requires focus must also be on the transmission/distribution interface data. Work under the Connections Action Plan (CAP) in this area has largely stalled due to the need for further clarity on policy direction regarding other areas of connection reform.

Policy proposals on visibility should not rely too heavily on smart meter data, as the most important gaps in data are about on-network monitoring capabilities. This is especially the case, for example, when establishing the actual spare capacity of local substations.

Question 1b. Do you agree with proposal 1a (new regulatory requirement on single digital view tools)? Do you have any views on how this should be implemented?

Energy UK supports the proposal to create a statutory requirement for network operators to create and maintain open data visualisation tools.

The optimal approach would be to amend the Smart Obligation Output (SOO) licence condition or the SOO Guidance for DNOs within the Distribution Code. This can be achieved through stronger and more stringent guidelines on the presentation, modularity and types of data available based on best practice in the industry.

For instance, the strength of UK Power Networks' (UKPN's) approach through Optimise Prime was the use of live data and the integration of data gathered from a range of stakeholders such as local authorities and those in the transport, telecommunications, gas, water and road sectors. Given the expected level of complexity and need for fast delivery to Net Zero, this level of cross-sectoral consideration must form part of the SOO Guidance. Ultimately, updates to the SOO Guidance must be centred on the consideration that these datasets must be accessible and useful for a wide range of stakeholders.

Live and open data on capacity and usage, using on-network monitoring capabilities, should be a minimum expectation for DNOs and thus should form part of the license conditions. Integration of this data with emerging centralised datasets closer to point of final consumption as part of the Data Sharing Infrastructure (DSI) and Asset Registration workstreams should be mandated for DNOs, even if this is a longer-term objective.

Question 1c. Do you agree with proposal 1b (new regulatory requirement on the creation of guidance / standards for data visualisation tools)? Do you have any views on how this should be implemented?

Energy UK agrees that there should be a statutory license requirement for data visualisation tools to be meet a minimum standard.

A clear license obligation requiring DNOs to meet a minimum number of standardised data requirements, including those concerning granular data, on-network live data for key substations, and modularity with other emerging centralised data sets like the DSI, would be appropriate. These license conditions should obligate DNOs to meet minimum standards within the SOO Guidance, including guidance on the inclusion of other relevant data from other infrastructure vectors.

Industry is concerned regarding the proposal for improved data standards to be maintained and hosted by the Energy Networks Association (ENA) given the potential for conflicts of interest and the historically sluggish performance with respect to policy reform on workstreams under the Open Networks project. Clear timelines, regulatory oversight, and industry's ability to challenge the ENA must be set out to ensure that these concerns are addressed.

Question 1d. Do you agree with proposal 1c (new regulatory requirement to provide connections data)? Do you have any views on how this should be implemented?

Energy UK agrees with the proposed regulatory requirement to provide open connections data.

This should form part of the ISOP license at the transmission level, simply to codify the existing practise of the monthly data books NESO has been producing of late, and to add certainty to the sector of their continued production.

At the distribution level, an update to the Regulatory Instructions and Guidance (RIGs) within the Distribution License to provide monthly datebooks on connections data would be of great use to industry. There must be clear guidance to ensure a standardised output presentation and minimum level of connections data, including data on low carbon technology (LCT) connections like heat pumps and EV chargers.

Question 1e. What are your views on the completeness and discoverability of connections data that would be useful to you? Are the existing resources clear and transparent?

The existing resources for connections data that have been developed through Connections 360 are helpful. However, other crucial information that would make the dataset even more useful for stakeholders would be further data regarding demand-side connections.

To date, efforts to improve the availability of data have focussed on supply-side generation assets. Going forward, similar efforts should be made to increase the level of categorisation and granularity of demand-side connection data, including data from consumers below the Transmission Impact Assessment (TIA) level. Greater access to, monitoring of and centralisation of this data would prove invaluable to the future planning of connections for developers.

In future, the datasets presented should also include data tags indicating the zonal 'bucket' projects are associated with and the mix of technologies that have an agreement to connect in a region measured against the Clean Power 2030 (CP30) regional targets. This should be broken down at the transmission and distribution level. There should also be a data tag available in the open datasets indicating which of the Regional Energy System Plans (RESP) a project belongs to.

Question 1f. Is there additional connections data that would be of use but legal barriers prevent it from being published? If so, do you consider that there are solutions that would enable this data to be made available, for example by aggregating it to appropriate levels / anonymising it etc.

Access to consumer connections data, including data from those notifying their DNO of their intention to connect a heat pump or electric vehicle (EV) charger is rightly protected under the Data Protection Act 2018 (DPA 2018) and the UK General Data Protection Regulation (UK GDPR). Access to this data is only available to other parties with express permission from the final consumer.

The ongoing work on enabling and streamlining consumer consent to share their energy data should include a focus on sharing anonymised data on when consumers raise a notification to connect an LCT over the 60 A limit. This data can then be integrated into the wider open network connections datasets.

Consideration of who owns the data and any legal considerations of appropriate use of that data should be integrated into the approach throughout all data-sharing processes.

Question 1g. Is there anything else regarding Theme 1 – Visibility and accuracy of connections data and network capacity that you consider we have missed?

As stated in response to question 1a, wider considerations regarding visibility and accuracy of data needs to be addressed. These include the location of changes in demand and how policy may affect this; the cost of future network equipment; the need for granular data that is close to the point of final consumption and is openly available; consumer technology preferences and potential resistance to uptake; and the changing role of current and future utility infrastructure, including the future of the existing gas network and role of hydrogen and CCUS.

Theme 2 - Improved standards of service across the customer journey (not including “minor connections”)

Question 2a. Do you agree with the issues we have set out under Theme 2 - Improved standards of service across the customer journey (not including “minor connections”)? Are there any other issues under this theme that we should consider or be aware of?

Energy UK overall feels Ofgem has correctly identified the main issues regarding the standards of service along the customer connection journey. We are especially happy to see Ofgem recognise the issue of the lack of obligations on DNOs to deliver project progression for connections at various stages beyond quotation.

In light of the recent efforts to implement license changes to enable the reform of the connections queue process, Ofgem is correct to identify another issue; the need for an obligation for DNOs to submit projects to NESO that have met the evidence requirements for a Gate 2 connection offer at the next application window. It is disappointing that Ofgem is not setting out proposed wording for this change within its proposed license changes, thereby leaving embedded generators unprotected for the go-live date of the reformed connection queue.

An obligation should also be put forward in the license for DNOs to clearly, and to a minimum expected standard, explain to connecting customers the requirements for a Gate 2 application, including fee requirements. It is concerning that, at present, work on this is simply being left to the Energy Network Association's (ENA's) Strategic Connections Group (SGC) which has historically suffered from a lack of transparency and engagement with connecting customers.

Question 2b. Do you have any views on proposal 2a (general principles-based licence condition and supporting guidance around standards of service throughout the entire customer journey)? Do you have any views on how this could be implemented?

Energy UK would favour a more prescriptive approach, codified in the distribution license, to improve the standards of service and timeliness of delivery from DNOs.

Relying on guidance would form a poor incentive to improve DNO performance. DNO behaviour is historically principally motivated by its incentives in the price control and its obligations within their licence conditions. This is clearly reflected in the keen focus DNOs have on producing connection quotations and offers given their obligation to do so, with concerns in industry that this has, in some cases, led to fewer resources in other parts of the connections process, leading to delays after a connections quote has been delivered. Given the pace of delivery expected in the coming years, a similar level of incentive is required for project progression.

Question 2c. Do you have any views on proposal 2b (new prescriptive condition(s) around standards of service)? Do you have any proposals for any specific areas of the connections customer journey that should be subject to such a requirement?

Energy UK would favour a prescriptive approach to service standards through changes to the distribution license conditions.

Specifically, obligations should be placed on DNOs spread out along the connections journey, such as minimum time periods to:

- a) hold a first formal 'kick-off' meeting after offer acceptance to discuss the plan of work.
- b) appoint a project manager and designer to each large project over a MW threshold.
- c) submit requests/evidence to progress a project the NESO where a project needs transmission capacity. There should be specific wording in the

distribution license obligating DNOs to submit projects that have met the appropriate Gate 2 criteria at the next available application window.

At the same time, Ofgem should review DNO Guaranteed Standards of Performance (GSoPs) to incorporate existing connections and create required response times at each stage of the grid connection process. This would allow businesses to know when to expect information on the cost and process for installing power and to seek alternatives where upgrades are too costly or too complex. Where such standards are missed, enforcement action should be considered.

Question 2d. Do you consider that any of the existing standards of service requirements set out in the regulatory framework for provision of specific products / services should be revised or removed? Do you consider that there is any duplication or overlap of regulatory requirements across the regulatory framework that needs addressed?

A key area of concern in the existing standards is the room to improve the amount of standardisation across the process for connecting at the distribution level. While improving response times is a welcome policy proposal, the significant variation in the experience of installing infrastructure across differing regions presents a risk that connecting customers might be encouraged to delay the process in specific locations, thereby delivering disparities in infrastructure requirements across different DNO areas. This itself may lead to a ‘postcode lottery’ should existing processes continue, with some areas receiving low-carbon technology and associated benefits sooner than others. The long-term economic and political ramifications of this could be significant.

Regarding duplication all DNOs should allow a standard process to facilitate multiple, coordinated bids at once instead of the current approach which requires developers to duplicate connection request processes. UKPN has delivered this approach and should be used as an example of good practice in this space.

Question 2e. Is there anything else regarding Theme 2 – Improved standards of service across the customer journey (not including “minor connections”) that you consider we have missed?

Given the current move towards aligning the connections queue process with CP30 and later the Strategic Spatial Energy Plan (SSEP), a key consideration not

addressed here is the role DNOs may or may not play in assessing a project's strategic alignment with CP30 or the SSEP.

While Energy UK tentatively supports DNOs playing a role in this assessment given their greater visibility of the energy landscape within their operating region. However, should DNOs play this assessment role, it must be coupled with obligations for DNOs to progress connections in a timely and cost-effective manner. This would also warrant wider guidance for DNOs about the strategic alignment and economic impact of projects across regional boundaries when making assessments.

Theme 3 - Requirement on networks to meet connection dates in connection agreements

Question 3a. Do you agree with the issues we have set out under Theme 3 - Requirement on networks to meet connection dates in connection agreements? Are there any other issues under this theme that we should consider or be aware of?

Energy UK agrees that Ofgem has covered the main issues faced in this area by developers and those trying to connect LCTs to the network.

Question 3b. Do you have any views on proposal 3a (strengthened principles-based licence condition around meeting connections dates)? Do you have any views on specific wording that would achieve the intended outcome?

Energy UK would support more prescriptive minimum timelines for connections established within the license conditions of network companies. This is essential to holding DNOs to account with one of the strongest tools to incentivise their behaviour that Ofgem has available ahead of what is expected to be a rapid period of buildout.

Nonetheless, strengthened wording regarding timelines for delivery can also be introduced into the license conditions regarding timelines for delivery following agreement. The phrasing "*must complete all necessary works and activities by...*" in network company obligations would be preferred.

Energy UK agrees that there is a clear need for obligations on DNOs to provide timely, accurate information to the connecting customer on all matters relating to their connection date as the project progresses. Communication is a key shortcoming in the connections process that stronger obligations could amend.

Question 3c. Do you have any views on proposal 3b (minimum standards / SLAs around meeting connections dates)? Do you have any views on specific standards that could be introduced and how they would work in practice?

Energy UK agrees there is a clear need for minimum standards for network operators to meet connection timelines following a connection agreement. Such prescriptive obligations are necessary to ensure that DNOs are sufficiently incentivised at this crucial time for the sector.

This could be achieved by introducing minimum timelines at the distribution level for meeting connection milestones as is currently standard practise at the transmission level. Allowances for recourse to review the timelines should be put in place within the license obligations should unforeseen issues arrive that delay delivery. The conditions under which such revision of timelines occur, such as unforeseeable supply chain constraints, must be clearly defined.

A key minimum standard to add certainty for developers and those connecting LCTs would be minimum standards regarding communication deadlines on questions regarding the connection. This includes an obligation to inform the connecting party of a revision to a connection date within no more than 14 working days of the mitigating factor delaying the connection becoming apparent to the DNO.

Question 3d. Do you have any views on proposal 3c (a financial instrument designed to offer recourse to connecting customers who face detriment due to delays)? Do you have any views on how this should be implemented?

Energy UK agrees there is a need for a financial instrument to offer compensation to connecting customers whose projects suffer from connection delays.

An appropriate way to manage this for larger connections would be for the network operator to be liable for lost revenues should the developer be able to robustly demonstrate that a project become unviable or lost out on revenue as a result of foreseeable delays to agreed connection milestones. This must include revenue streams from support programmes like Contracts for Difference (CfDs). Such liability should be implemented through the license conditions regarding connection offers.

One alternate approach would be to mandate TOs (and the NESO where applicable), to incorporate proportionate liquidated damages within connection agreements. We

propose that this would be implemented without passing the associated liability onto consumers.

Question 3e. Is there anything else regarding Theme 3 - Requirement on networks to meet connection dates in connection agreements that you consider we have missed?

Energy UK believes the main issues regarding connection dates in connection agreements are addressed in this consultation.

A more minor but still relevant issue is with regards to circular logic problems during the connection design process which lead to project delays. For example, DNOs will request from the developers information on the harmonics of their project to progress the connection. This information will be needed 6 months ahead of the procurement of the needed components. However, it takes around 9 months to procure components for developers on top of the time needed to test them. Issues like this appear irresolvable under current regulation and lead to needless delays to projects.

Theme 4 - Quality of connection offers and associated documentation

Question 4a. Do you agree with the issues we have set out under Theme 4 - Quality of connection offers and associated documentation? Are there any other issues under this theme that we should consider or be aware of?

Ofgem has sufficiently identified the issues regarding the quality of connection offers. Energy UK agrees that a key issue is the lack of detail regarding the transmission works associated with a distribution connection offer and its impact on the connection offer timelines. We highlight the lack of clarity on cost to customers. We are of the view that potential costs associated with connection offers should be clearly provided to customers to ensure transparency and enable appropriate planning.

However, while the incentive to provide a connection quote and offer often detracts from the quality of the offer, this may not be the result of the strictness of timeliness requirements for a quote and offer. Rather it is the result of the lack of minimum requirements and standardisation regarding other parts of the connection journey.

Network operators respond to clear obligations, penalties and incentives. The lack of quality of service in one area is not a zero-sum gain trade off with other areas

networks are responsible for. The quality of offers at the transmission level have improved recently as part of the Connections Action Plan (CAP). It stands to reason that the same should be true at the distribution level.

Energy UK urges Ofgem not to consider loosening requirements on timeliness to improve the quality of connection offers until sufficient consideration of improving DNO obligations is considered.

Proposals:

Question 4b. Do you have any views on proposal 4a (principles-based licence condition on the completeness / quality of the offer and supporting documentation)? Do you have any views on specific wording that would achieve the intended outcome?

Energy UK would prefer a more prescriptive, license-based approach to improving the quality of connection offers and associated documentation, supported by a clear guidance document.

Question 4c. Do you have any views on proposal 4b (minimum standards / SLAs on the completeness / quality of the offer and supporting documentation)? Do you have any views on specific standards that could be introduced and how they would work in practice?

Energy UK would support minimum license-backed standards and clear guidance on the content, completeness, and conditions of connection offers. The ultimate aim of this effort should be to move towards a standardised approach to offers and their associated documents and fees.

Standardisation should take place at each stage of the application process:

- a) Pre-application: Each DNO should be able to present customers with a standard mechanism for accessing information on existing grid capacity through an address-based online portal.
- b) Application: Each DNO should have a common application form covering grid upgrades easily accessible on DNO websites in addition to other associated parties like the ENA.
- c) Quotation and design: Quotations should be standardised and should have a standard fee, or at the least a standard system of itemising costs for quotes. Quotes must be subject to an extension request beyond the existing 6-month window.

The common forms and processes to facilitate this should be led by the ENA in collaboration with DNOs. Ofgem and DESNZ must hold the ENA and DNOs to account for delivery to prevent delays to implementation of common standards.

Clear timelines for when a connection becomes firm and how much reliance on non-firm connections is deemed acceptable before network reinforcement is mandated would be welcome to ensure non-firm connections do not become the standard.

There is also need for greater clarity around the nature of a non-firm connection – not just for how many hours per year it will be curtailed, but when. A solar farm facing 1,000 hours of over-night curtailment will be significantly less affected than the same solar farm facing 500 hours of curtailment over summer between 11am and 3pm. DNOs are not currently required to inform customers when their curtailments are likely to occur. Until this issue is addressed, development of the connections to the network face uncertainty.

As noted above, clear standards are needed regarding timeframes for each connection milestone and the conditions under which deadlines might be subject to change. This would need to be strictly defined to ensure deadlines are changed without DNOs becoming liable only when the circumstances of the delay are due to unforeseeable circumstances.

Question 4d. What do you consider would constitute a ‘high quality offer’?

Energy UK believes a high-quality offer would involve:

- clear and itemised costing for the connection,
- clear timelines for each milestone for the connection,
- mitigating circumstances that might constitute a delay in meeting milestones,
- contingency plans for foreseeable disruptions,
- a clear description of the needed works including those needed at the transmission level,
- a clear outline of the needed documentation and obligations of the connecting party at each stage.

This latter feature will especially be important as the system moves towards strategic planning and connecting customers will be required to submit land rights documentation and information pertaining to the strategic necessity of a project.

Question 4e. Is there anything else regarding Theme 4 - Quality of connection offers and associated documentation that you consider we have missed?

Energy UK agrees that Ofgem has sufficiently covered the main issues regarding the quality of connection offers.

Theme 5 – Ambition of connection offers

Question 5a. Do you agree with the issues we have set out under Theme 5 – Ambition of connection offers? Are there any other issues under this theme that we should consider or be aware of?

Energy UK agrees that a key risk of increasing obligations on DNOs might be that they offer late connection dates than they would otherwise to minimise risk to themselves of facing penalties. A key consideration regarding this risk is the potential need for obligations placed on DNOs to progress connection offers to NESO in line with the regional connection buckets to achieve CP30 and later the SSEP, both through offers to connect prior to 2030 and for offers from 2030-2035.

Question 5b. Do you have any views on proposal 5a (strengthened principles-based licence condition around offering earliest achievable connection dates)? Do you have any views on specific wording that would achieve the intended outcome?

Energy UK agrees with the proposal for a strengthened principles-based licence condition that requires DNOs, TOs and the NESO to offer the earliest achievable connection date to the customer.

Energy UK believes that should the tightened conditions for network operators and NESO centre on providing the earliest possible connection date based on information available at that time, clear guidance would need to be outlined on what constitutes the information relevant for a connection offer. This information would need to be codified and network operators and NESO must be obligated to make clear the information needed from customers to make a connection offer. Similar arrangements would be needed regarding information that subsequently emerges that means connection dates might be changed.

However, we believe the best way to strengthen the ambition of connection offers would be by providing clear license obligations for NESO to provide connection

offers, and DNOs to progress connection proposals to NESO, that are in line with the regional transmission and distribution regional connection buckets outlined in the CP30 plan. In doing this, network operators will be obligated to aid Ofgem in its Net Zero obligation and would not be incentivised to issue unambitious connection offers.

Question 5c. Is there anything else regarding Theme 5 - Ambition of connection offers that you consider we have missed?

As stated in response to question 5a, the interaction of the ambition of connection offers should be considered in tandem with the emerging obligation on licensed parties regarding the need to meet strategic energy plans.

Theme 6 – Minor connections

Question 6a – Do you agree with the issues we have identified? Are there any other issues under this theme that we should consider? Please provide data and evidence to support your views if possible.

Energy UK overall agrees with the issues Ofgem has identified concerning the issues facing minor connections.

Regarding the need to notify the network if connecting a LCT over 60 A or 3.68 kW per phase, it's worth bearing in mind that the ENA's database also assumes that heat pumps have back up resistance heating, when many are fitted without this. This needlessly adds kilowatts of capacity to heat pumps in their database and therefore means more need to go down the 'apply' rather than simply 'notify' route when connecting a heat pump.

Further, upgrading a fuse is a process which needs at least one physical visit and can take time which has no regulatory limit on it. There is also the question of whether it is appropriate to allow some actors but not others to undertake work, if this gives certain people an advantage. Ofgem should ideally aim to allow the widest range of parties that meet minimum certification standards to upgrade fuses to enable greater competitive benefits for consumers.

Additionally, whilst the upgrade to the wires between the fuse and the meter is the supplier's responsibility, the wires between the meter and the house's fuseboard remain the household's or business' responsibility. This can lead to needless delays to the installation of LCTs. Ofgem should review whether additional regulatory

protections should be in place to ensure the installation of LCTs is delivered in an efficient and safe manner for the consumer and the system.

Crucially, the main issue is that much of the governance of the phase current limitations on connections is unregulated. Last year, some DNOs downgraded the maximum current for someone connecting an LCT to 80 A. This threatens to seriously undermine efforts to install LCTs in homes and business buildings. Ofgem oversight and enforcement in this area, potentially with the help of an independent body, is critically needed.

Regarding fuses and looped connections, the key issue is that unlooping a connection to enable the connection of an LCT is an unregulated process with no customer service standards set by Ofgem. Often looped connections will cross the boundary of other properties, further complicating the process. There have also been worrying reports of DNOs attempting to charge the installer of the LCT for the unlooping process, something which should not be occurring.

Another issue blocking minor connections is that, in many parts of the distribution network, the voltage runs too high, meaning there is less capacity available to connect LCTs using the existing network. This issue will only grow worse as generation of electricity on the network becomes more decentralised, often closer to the point of final demand, thus not necessitating the current 216 V minimum standard.

Indeed, the volatility of the system is only expected to rise as LCT take up increases and the penetration of renewable energy sources grows. Discrepancies between device voltage standards and actual network conditions, even where voltage levels are running within statutory limits, are already causing equipment to trip. This clearly has negative implications for consumers experience and may in the future actively prevent the connection of LCTs. One low-capacity renewable developer has already indicated that increasing voltage volatility has presented a barrier to the feasibility of their project's connection.

Question 6b – What are your views on our proposals designed to address these issues? Are there other proposals you consider would achieve the intended outcomes?

Energy UK agrees strongly with the proposed prescriptive, license-based approach to timescales for the connection process, as well as a reasonable estimate of any cost of connection, based on high quality, standardised processes and consistent

language across all DNOs. Such standards are especially needed with respect to the installation of LCTs, upgrading of fuses and the unlooping of connections (the latter two being currently high under-regulated areas).

Energy UK also agrees with the proposal for a route to financial recourse when connection timelines and standards are not upheld and/or minor connection customers are not treated fairly. It would be appropriate to introduce these through amendments to the Guaranteed Standards of Performance (GSoP). Where such standards are missed, enforcement action should be considered, potentially by an independent body, as proposed by Ofgem.

Energy UK agrees with the proposal to review of the 3.68 kW per phase threshold for a 'notify to connect' under the G98 process.

Energy UK agrees with the proposal to strengthen the obligation on consumers to undergo the notify to connect process when needed. Nonetheless, this must be enabled by obligations on DNOs to clearly communicate with connecting customers of the required information and documentation from them when intending to install an LCT.

There is a serious need to consult on and create minimum customer standards for addressing looped connections and upgrading fuses as well as a need to create clear standards for current limitations that DNOs can permit in each property on their network. There is also a need to review the capacity of LCTs in ENA's database, especially if there are inaccuracies regarding an assumption of all heat pumps having resistive heating.

Regarding the issue of voltage volatility as a barrier to minor connections, the then-Department for Business, Energy and Industrial Strategy's (BEIS') and Ofgem commissioned a study to investigate this issue in 2020 which confirmed that a relaxation of the voltage lower limit is feasible and would be a quick win. Moreover, voltage reductions could deliver yearly cost benefits of between £12 and £70 per low voltage consumer, as well as increasing network capacity and delivering deferred reinforcement costs. At the time (July 2021), Government agreed there were benefits but decided to encourage rather than mandate DNOs to use lower voltage levels and to keep the topic under review. Today, overvoltage is still widespread, showing that stronger regulation is required to effect this change. A one-time, step down in voltage of 4% would be a pragmatic, no regrets action that would be an excellent quick win for any government, saving households c. £35 per year (total £950m per year).

Nonetheless, this would be a short-term solution to increasing voltage volatility. A well-though out voltage management policy framework is needed and would help put focus and momentum behind recalibration of standards and help networks prioritise which tools and technologies to develop and employ in different scenarios. This will be key as simply lowering the minimum voltage level will not work as a solution in all parts of the network in the long run. For example, Ofgem has signalled its intention to reintroduce incentives for distribution networks to reduce losses in RIIO-3. This objective is best met by running voltage high. A blunt incentive designed without considering voltage policy objectives in the round might easily limit the ability to connect minor connection customers.

There is therefore a keen need for a nuanced and carefully sequenced regional approach to managing increased voltage volatility. This must involve a range of stakeholders, perhaps coordinated by body like the Regional Energy System Planners (RESs), involving a range of stakeholders, to identify the best long-term voltage management solution for an area.

Question 6c – Do you have views on how poor performance could be addressed under these proposals to ensure the smallest scale customers are protected and LCT roll out is supported?

As stated in our answer to question 6b, poor performance is best addressed through the introduction of clear and consistent license conditions for DNOs on needed information from customers, and clear customer service standards for the upgrading of fuses and unlooping of connections.

Theme 7 - Provisions and guidance for determinations

Question 7a. Do you agree with the issues we have set out under Theme 7 – Provisions and guidance for determinations? Are there any other issues under this theme that we should consider or be aware of?

Energy UK overall agrees with the identified issue that current dispute determination process is inefficient and resource intensive, not just for Ofgem but for all parties involved.

Question 7b. Do you have any views on proposal 7a (Ofgem to review the guidance for connection determinations)?

Energy UK agrees with the proposal to review the guidance for connection determinations.

One option Ofgem should consider is the role that other independent bodies might play in being more actively involved in addressing connection disputes. This could be the Energy Ombudsman but perhaps a regional independent body (maybe linked to the RESPs) would be better placed going forward to handle local connection disputes. Such bodies would have to act under the strict guidance of Ofgem needless to say.

Question 7c. Is there anything else regarding Theme 7 - Provisions and guidance for determinations?

Ofgem has sufficiently covered the issue regarding the guidance for determinations on disputes.

RIIO T3 – Electricity Transmission Network Incentivisation

Question 8a - What are your thoughts on each of the three ideas we have presented? In your response, please identify positives and negatives you see in each of the proposals, and if you have a favoured option and why that is.

Energy UK strongly favour the third proposed option (Supergrid Transformer Capacity) to incentivise transmission operators (TOs) to develop and meet plans to develop and expand supergrid transformers which are key to expanding the network capacity available for connections across the system. The identified risk of TOs undershooting their projected supergrid transformer target in their business plans to game this incentive can be mitigated by rewarding less ambitious plans less generously. Potential supply chain risks should be accounted for through emerging price control mechanisms like the Advanced Procurement Mechanism (APM).

Of the three presented policies, Energy UK feels the latter two options should be pursued (Connections Timeframes and Supergrid Transformer Capacity).

Energy UK is open to the first option of 'Post Price Control Performance Review'. While there are risks associated with the subjectivity of a *post-hoc* survey-based approach and past issues with the use of surveys for price control incentives, these issues can be mitigated. If this option were to be pursued in RIIO-ET3, a measure

incentivising clear, harmonised communication with connecting customers regarding developments to connection timelines and specifications in a timely planner would be essential.

Energy UK would be more supportive of the second 'Connection Timeframes' incentive. Though we recognise the difficulty with creating benchmarks for an incentive based on the speed of the time to connect projects, we believe this issue could be partly circumnavigated by basing the incentive on other metrics. They might include the number of times connection agreement timelines had to be pushed back due to factors clearly classified as foreseeable by the DNO (see answers to questions 3 and 4). Alternatively, the incentive could be based on the degree to which connections successfully met the CP30 connection technology 'buckets' in time for the 2030 deadline (or 2035 for the SSEP).

Question 8b - With reference to our Future Considerations, do you have any further ideas on how TOs could be incentivised through a financial penalty and reward model, to deliver faster connections times, a more effective overall connections process in RIIOET3 and drive behaviours that have a positive long-term impact on the network?

The presented Connections Timeframes and Supergrid Transformer Capacity incentives have potential to be adapted and evolve to become a long-term incentive for the transmission system.

Key to this will be aligning both incentives with the CP30 plan and later the SSEP, as well as any other future strategic energy plans. Creating a metric to ensure delivery against spatial energy plans should tie together the performance incentives of TOs with Government objectives.