

ENA response: Open letter on future reform to the electricity connections process

Introductory comments

- Energy Networks Association (ENA) welcomes the opportunity to respond to Ofgem's 'Open letter on future reform to the electricity connections process'.
- ENA and its members are already working with Ofgem, government and industry stakeholders on reforms to the connections process, including through ENA's April 2023 'Improving and Accelerating Customer Connections' action plan. These steps complement work under way by National Grid ESO at the transmission network level, through their Five Point Plan and ongoing work with the transmission network operators on connections reform.
- ENA's plan includes the first steps network operators will take, and focuses on:
 - Reforming the distribution network connections queue, promoting mature projects that are closer to delivery above those that may be 'blocking' the queue.
 - Changing how transmission and distribution networks coordinate connections, improving their interactivity.
 - Greater flexibility for storage customers through new contractual options.
- In the last eight years, the energy networks have connected more than 50GW of renewables and nearly 25GW of distributed generation. This is more than the total energy demand for England, Scotland and Wales. It is an achievement that has been made possible thanks to a regulatory regime and a system which has enabled prompt connections and accelerated the UK's renewable electricity pipeline.
- The fast pace of technological change, including solar energy, and other technologies like battery storage, that the GB energy system is now seeing has driven spikes in connections requests. Current queue volumes, which had exceeded industry forecasts that have informed the network planning process. In the year to October 2022, the networks received more than 160GW of applications.
- Many projects are being connected, but many are not able to be progressed to the timescales customers or the net zero transition require. Many projects in the connections queue are suffering delays from planning or are awaiting final investment decisions. The existing 'first come first served' approach means these delays and the long existing queue are critical barriers to progressing the customer connections. Meanwhile, in some parts of the country, the grid needs to be upgraded to increase capacity and make sure it's ready for the projects coming along the conveyor.
- There is no 'quick win' solution but there are immediate steps network companies, working in partnership with industry, Ofgem and the Department of Energy Security & Net Zero (DESNZ) can take, and are taking, as an industry to unlock some of this capacity.
- We believe that the initial changes that networks are taking collaboratively with Ofgem and government are necessary, but not sufficient in the long-term. Rather, they are the starting point for further, far reaching reform, to reflect the changing nature of the need to connect technologies to electricity networks.

- This response sets out the key principles and issues which we believe should inform the next steps of connections reform, and how the next steps for connections reform need to proceed on a rapid, retrospective, and selective basis.

Our response to the letter

- As a general comment, we agree with the solutions, approach, outcomes and guiding principles identified and suggested by Ofgem in the open letter, to address the current challenge of customer connections.
- As the letter notes, ENA and its members are already engaging with Ofgem and DESNZ as part of this work. ENA strongly welcomes the public support both have given to network companies on this issue, as an essential component of efforts by all stakeholders to develop solutions to this challenge.
- The scale of the existing connections queue (and its continued growth), and the fact that most technology sectors are significantly oversubscribed in the queue compared to what the ESO Future Energy Scenarios estimate is actually required for Britain to decarbonise, shows that additional, substantive reform will be required to fully address this challenge.
- Following the publication of the ENA Strategic Connections Group (SCG) Improving and Accelerating Customer Connections' action plan in April 2023, ENA and its members focus, is on:
 - Implementing the commitments set out in that plan.
 - Taking forward additional initiatives that have already been identified by the SCG, in close collaboration with the Electricity System Operator (ESO) and its Five Point Plan and wider reform of the connections framework for transmission networks.
 - Developing a common framework of additional, longer-term solutions for speeding up the connections process, which will be published in the summer of 2023.
- Throughout this process, network companies will continue to work to resolve key issues but will require the continued support and direction of Ofgem and DESNZ. Network companies will identify those areas of governmental and regulatory policy that may require change to deliver further reforms to the connections process.
- Reform should be focussed on both improving connection outcomes within the current queue, and also on the need to ensure that reform has an impact which means the connections process will be fit for purpose in the long-term, to meet the 2050 net zero decarbonisation target.
- Therefore:
 - The ambition of network companies, the government and the regulator should be to reform the current connections queue in a way that has a strategic, long-term and enduring impact.
 - The assessment of the challenge at hand in the Open Letter (Section 1), tends towards being backwards-looking in terms of how we have reached this point in time, rather than forward looking towards the challenges that can be expected in the short, medium and long-term.
 - In particular our comments relate to government short to medium-term targets on heat pumps (600,000 to be installed p/a by 2028), electric vehicle charge points (300,000 to be installed by 2030) and the decarbonisation of the electricity networks (by 2035).
 - Network companies, the regulator and the government will need to be prepared for the fast-changing nature of decarbonisation and its subsequent impact on the connections process. For example, the shift in focus to large volumes of lower voltage technologies connecting to

the grid, such as electric vehicle charge points or domestic heat pumps, will require a different approach to connections management compared to a large wind or solar farms.

- This in itself will lead to different engineering outcomes for electricity networks, which will need to be reflected in the connections process and other projects seeking to connect to the grid. For example, moving to non-firm connections as the default for new battery storage projects will be essential for ensuring that network capacity that would otherwise be under-utilised through firm connections is made available.
- Holistic, strategic policy design by networks, Ofgem and DESNZ will be key to ensuring that electricity networks can address this challenge. We believe that reforms to the connections process should not be viewed in isolation but instead be mapped against relevant departmental and regulatory policies (including regulatory decisions related to the current and forthcoming price control for electricity networks) particularly with regard those with near and medium-term timescales, such as:
 - That the need for a strong, credible evidence base, which commands the confidence of the regulator and the wider energy industry, to inform network capacity decisions but also able to inform some of the outcomes of the queue management process is likely to be of key importance. Ofgem should therefore move to clarify the roles and responsibilities of its planned Regional System Planner function as quickly as possible and, working with network companies, consider what interim arrangements might be put in place pending that function's introduction.
 - The urgent need to reform the planning system for building and maintaining transmission and distribution network infrastructure, in particular in relation to the need to ensure planning decisions are aligned of national and regional evidence cases (e.g. the Centralised Strategic Network Plan, RSPs), to speed up the process of securing land rights for building and maintaining network infrastructure, and give network companies the powers and right of access to that infrastructure that is comparable to other infrastructure sectors.
 - Investment in low voltage monitoring equipment (and other asset enablers) ahead of anticipated need to maximise the use of existing network capacity will be key, alongside decisions on investment in building additional network capacity, and should not be overlooked. The accelerated roll-out of this equipment is key to fully harnessing the power of data and digitalisation to addressing the current and future connections challenge.
 - The importance of network-led innovation funding, currently in the form of the Network Innovation Allowance, will be key to ensuring networks are able to access fleet-of-foot innovation funding for a wide range different projects related to the speeding up of connections, particularly as the nature of the challenge of connecting low carbon technologies to the networks evolves is response to decarbonisation (for example, in relation to technology maturity and/or capability). There is a need for Ofgem to confirm its commitment to continuing network-led and managed innovation funding beyond 2026.
- Building on the points above, we believe that the next stages of connections reform will need to be rapid, retrospective, and selective:
 - **Rapid reform** – ENA and its members will need to work with Ofgem and the DESNZ to accelerate the steps and time required to implement the code, regulatory, and/or legislative or policy changes necessary for reform. Implementation of the ESO Connections Reform recommendations could be expected to take until between 2025 and 2027 under the current governance arrangements.

- **Retrospective reform** – due to the scale of the already contracted connections queue, any strategic reform that is not applied retrospectively, i.e. to those projects already in the queue, will take decades to fully realise benefits. Reform that allows the complete management of the queue, not just those projects that apply for network connection after the reform is implemented will be critical.
- **Selective reform** – reform that allows the progression of those projects most in the interest of all customers, of the net zero transition, and of Britain will also be essential. Networks are not and should not be autonomously determining which projects or technologies do this. But some industry mechanism or framework that goes beyond ‘first ready, first connected’ is required to better align supply, demand, network infrastructure. Potential examples include a connections ‘merit order’, a ‘cost optimisation’ approach to connections, aligning capacity auctions with network infrastructure and connection offers, or linking connections activity with Regional System Planner, National Planning Statements and/or Future System Operator plans. Importantly, any such mechanism will need to be determined and authorised by policy makers in DESNZ and/or the regulator. This is a key area of policy which we are keen work on collaboratively with DESNZ and Ofgem to further develop, including how reforms will interact with wholesale market reforms through the Review of Electricity Market Arrangements (REMA), which will signal to projects what future revenue they will earn and influence which projects they choose take forward.

Concluding remarks

- ENA welcomes the opportunity to respond to Ofgem’s ‘Open letter on future reform to the electricity connections process’.
- In summary:
 - We agree with the nature of the challenge and the need to focus described by Ofgem, and networks are committed to acting (and indeed are already acting) to respond to that challenge. It is important, however, that reform is not just reactive but also strategic and enduring.
 - We agree with Ofgem’s structuring of the solutions needed to meet this challenge, as set out in Annex B to the letter. However, there will be a need for even greater reform, which needs to be rapid, retrospective and selective, as we set out in this response at a high-level.
 - There are wider, enabling policy reforms that need to take place, above and beyond immediate reform of the connections process itself, which are key to ensuring we meet this challenge.
- We have set out how Ofgem can build on the strength of its approach to date. In the coming weeks, ENA will be sharing further detail of the suggestions we make in this response. ENA and its members would welcome the opportunity to discuss the points we make this response in more detail, should it be of use.
- ENA and its members look forward to continuing to work with the regulator and DESNZ we continued work together to tackle this crucial challenge.
- Should you have any questions about the points raised in this response, please contact David Boyer, Director of Electricity Systems at ENA, via David.Boyer@energynetworks.org