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Ofgem consultation - Quicker and more efficient distribution connections

The National Farmers' Union of England and Wales (NFU) represents 47,000 farm businesses throughout England and Wales. In addition we have about 40,000 countryside members with an interest in farming and rural affairs.

With 75 per cent of national land area in the agricultural sector, NFU members have a significant interest in land-based renewable energy production, where they can benefit directly as energy producers themselves or as hosts for energy plant developed by others. Our own market research, as well as that of other organisations, suggests that more than one-third of farmers and growers have invested in some form of renewable energy production, for self-supply or export to other users.

The NFU believes that domestic land-based renewable energy can deliver up to a quarter of UK clean energy needs by 2020, faster and cheaper than many other low-carbon energy options. This message is consistent with our vision for farming delivering a wide variety of goods and services to the UK economy, centred upon but not limited to food production. We are especially supportive of farmer-owned small and medium scale renewables projects, particularly schemes which deliver multiple benefits from the land or which help farmers to achieve local environmental objectives (e.g. resource protection, biodiversity).

The NFU is engaged with DECC, Defra, DfT and other government departments and advisers in directing climate change and renewable energy policy into real economic opportunities for rural diversification and job creation. We also work closely with other trade associations and non-government organisations with an interest in renewable energy, including the Renewable Energy Association (of which we are associate members), the Solar Trade Association, RenewableUK (representing the wind power industry) and the Anaerobic Digestion and Bioresources Association.

General comments

The NFU would like to make the following comments with specific regard to the main issues raised in the consultation document:

- creating new network capacity in anticipation of future connection requirements
- finding smart ways to reduce the need for additional capacity, thereby speeding up the connection process
- more flexible connection terms which could lessen the initial cost burden falling upon some customers.

We recognise that, with a growing proportion of UK electricity (presently 19-20%) coming from renewable generation, significant progress has been made to date in decarbonising Britain's electricity supply, consistent with the goals set in the UK Climate Change Act of 2008 and the European Renewable Energy Directive (2009).

However, further progress could be put at risk by the emergence of critical limitations to electricity grid capacity. This is exemplified by the recent declaration by Western Power Distribution that they will have to apply restrictions to future connection offers throughout southwest England. Much of Cornwall, Devon, Somerset and parts of Dorset is now subject to three to six year delays for generation connections where any reinforcement work is needed at 6600 volts, 11,000 volts or above. For many farmers with small-scale renewables projects, the grid connection process appears to be getting "slower and less effective" rather than quicker and more efficient. Like some other independent generators (e.g. community groups), most farmers have a limited choice of where to connect to the network, and they are unable to spread risk across a portfolio of projects.

The NFU believes that DECC's high-level policy goals (as supported by Ofgem) did not anticipate the recently observed volume of land-based distribution-connected renewable generation, having previously predicted a greater proportion of transmission-connected major projects. We are concerned that this failure to enable sufficient investment in energy infrastructure will stifle investment in those land-based renewables that support a profitable farming sector.

Whether this investment is paid for by the Distribution Network Operators (DNOs) directly (and charged to energy bill-payers), by charging new generation connection customers (many of whom will therefore take longer to become subsidy-free) or directly from government spending, the necessary upgrades to energy infrastructure remain a cost to the UK economy. What is needed is to find the most efficient way of allocating resources. Ofgem's responsibility for protecting consumers should extend to informing and explaining to energy bill payers about the level of investment needed by DNOs as well as the transmission network. This is consistent with the overall process of electricity market reform and decarbonisation, as well as the harmonisation of European grid codes/standards.

We suggest that in order to support DNO investment ahead of need, the new government and Ofgem need a better joined-up strategic plan (and possibly a co-ordinating body or 'system architect', as proposed by some stakeholders) to answer the following questions:

- approximately what level of renewable electricity production is expected and from what sources, regionally and nationally, by 2030?
- how much DG is required as opposed to transmission-connected major projects?

The NFU urges the new Government (and Ofgem, as its energy regulator) to support more positively and visibly the deployment of small-scale renewable electricity, by encouraging DNOs to interact closely with farm-based generators and to value and highlight the improvements to system performance that may result from embedded generation in rural parts of their networks. Due to the rapidly-falling costs of a variety of battery systems, small and medium scale energy storage services are now imminently likely to become part of the embedded generation 'offer' to DNOs, helping to smooth the output of small-scale generation as well as enabling new electrical loads such as plug-in hybrid and electric vehicles.

DNOs need to be enabled to work with third parties (developers and investors in energy network management) who are able to trade stored energy which can also provide ancillary services (frequency, voltage management, reactive power, short-term operating reserve). The regulatory framework must avoid disincentivising/penalising storage systems that import and export power within the same half-hour period. Lastly, new market and contractual arrangements need to be 'discovered' for distributed generation, electricity storage and active network management, by enabling commercial transactions, overcoming legislative and regulatory barriers, and driving forward trial schemes.

Overall, the NFU calls for an energy distribution network that caters better and more efficiently for the patterns of small-scale decentralised energy supply and consumption which are typical of the emerging mixed-technology energy economy.

Consultation questions

The NFU would like to submit the following generalised responses to the specific questions posed in this Consultation.

We agree with many other stakeholders that the demand for distributed generation connections in many DNO areas is now so great, with improved opportunities to predict demand through consultation, intelligence gathering and improved queue management, that there is little risk of inefficient “stranded assets” being created (Scenario 1). Any temporarily unused grid capacity is likely to be swiftly identified by commercial developers and taken up by new connection requests. Some of our farmer and grower members have stated that they clearly prefer the full socialisation of reinforcement costs, including anticipatory reinforcement. For this reason, the NFU believes Ofgem should give the greatest priority to Scenario 1, encouraging the DNOs to invest strategically in network reinforcement and recover their costs through DUoS (Distribution Use of System) charges.

However, the NFU can also see merit in DNOs trying out alternative ways to create new network capacity such as the ‘RAV-Buyback’ model of anticipatory investment described in Scenario 2. Under Scenario 3, we would also support both the ‘DevCo’ third party investment model (assuming successful trials in finding ways for independent bodies to assume investment risk), as well as the encouragement of consortium arrangements (although trials to date suggest this is not a panacea). Under both Scenarios 2 & 3, it is important that any new arrangements meet the unique needs of small-medium scale independent generators without discriminating against them as potentially higher-risk. The measures proposed under Scenario 4 are probably the best option in the short term to improve the availability of generation connections, and should be pursued as a matter of urgency.

We would like to see improved ‘queue management’ by DNOs to help free up unused capacity, e.g. where connection offers have been made but not accepted – in some cases, where speculative developers are obscuring the true level of demand for generation connections. Greater use of project milestones instead of substantial assessment and design (A & D) fees would be preferred by many farmers, to avoid specifically discouraging small-scale independent generation projects (which could perhaps be subject to fee exemptions or delayed payment privileges).

The NFU also advocates the accelerated introduction of cross-government incentives for time-constrained export-limited connections and energy storage that can help DNOs with managing local networks, as part of the new business environment of ‘flexible’ or ‘alternative’ generation connection offers. These could take the form of enhanced capital allowances, tax reliefs, etc., rather than grants or subsidies.