

Energy UK response to Ofgem's Open letter: Charging arrangements for embedded generation

27 September 2016

1. About Energy UK

- 1.1. Energy UK is the trade association for the GB energy industry with a membership of over 90 suppliers, generators, and stakeholders with a business interest in the production and supply of electricity and gas for domestic and business consumers. Our membership encompasses the truly diverse nature of the UK's energy industry, from established FTSE 100 companies right through to new, growing suppliers and generators, which now make up over half of our membership.

2. Introduction

- 2.1. We are currently operating under a charging model designed for a Transmission and Distribution system that was radically different from the one we have today. Traditional large-scale transmission connected plant is closing or being mothballed, and the current trend for increasing numbers of generators connected to the distribution network looks set to continue. The current charging model is already showing signs of wear, with cracks appearing in relation to embedded benefits, connections and ancillary services. With the increase of distributed generation already on the wires today we are seeing significant changes in the behaviour of the system including, for example, the phenomena of exporting Grid Supply Points.
- 2.2. Energy UK has been working with members to review electricity charging arrangements in GB. As a starting point we built upon our visions contained within our Pathways to 2030¹ report with regard to where we consider the energy industry is moving. Our response to the Ofgem open letter reflects this vision in relation to the development of a more appropriate charging framework.
- 2.3. Energy UK members are supportive of an economic and efficient electricity network charging regime with a level playing field for transmission and distribution connected generation as well as demand-side response, storage and other new technologies that may emerge. The current charging arrangements are extremely complicated and if left unchanged it is likely that existing distortions between transmission and distribution connected generation, as well as different types of technology will widen. We note that decisions already made, such as the volume of generation to procure in previous Capacity Market auctions, will have included assumptions on the level of peak demand based on the current charging regime. It is therefore important that any intention to review and improve the current charging regime is clearly communicated to industry as soon as possible to clarify the direction of travel ahead of the next Capacity Market auction round.
- 2.4. Addressing the different charging issues across industry codes holistically is necessary in order to ensure that any existing or new distortions do not manifest in other areas of the

¹ <https://www.energy-uk.org.uk/publication.html?task=file.download&id=5722>

electricity system. Failure to do so could result in ever higher costs faced by GB consumers. Whilst it is essential that all issues are addressed in a timely fashion to the extent possible, it is essential that any significant reforms are taken forward in a coordinated, considered manner and fully supported by robust impact analysis and consultation to ensure that customers are better served by any reforms and also that parties are not unfairly discriminated against. Ofgem should be mindful of unintended consequences when making changes to the charging regime. For some of the proposed changes transitional arrangements may be considered appropriate for example where projects that have made significant commitments to invest, or have already been built based on either long standing charging principles or policy decisions.

- 2.5. In the short term, we consider that the CUSC modifications currently being progressed by industry may develop reasonable solutions to the current TNUoS methodology which will lead to a more cost reflective charging regime in GB. These should be fully supported by a robust evidence base with a cost benefit analysis to ensure that customers are better served by any reforms and also that parties are not unfairly discriminated against.
- 2.6. In the medium to long term, a holistic review of charging arrangements should be carried out. There are several options to progress holistic changes, our preference is for Ofgem to initiate a Significant Code Review (SCR) in relation to the existing network charging regime to ensure all related charging issues are discussed and developed in a structured manner. We also note that changes can also be led by National Grid or be progressed through the relevant code panels with industry raising modifications.
- 2.7. We consider that a holistic review should include; Distribution Use of System (DUoS), Transmission Network Use of System (TNUoS), Balancing Services Use of System (BSUoS), Connection charging (transmission and distribution) as well as Triad.
- 2.8. The latest version of Energy UK's charging report has also been submitted with this response to highlight the full extent of issues across the charging regime as well as the interdependencies between codes. Other areas that were also noted as being important, but out of scope for this report, included the ancillary services market, distribution/transmission losses, access to the wholesale market and the transition from Distribution Network Operators (DNOs) to Distribution System Operators (DSOs).
- 2.9. Energy UK welcomes the opportunity to further discuss the points raised within this consultation with Ofgem. Should you require further information or clarity on the issues outlined in this paper then please contact Kyle Martin on 020 7747 1834 or kyle.martin@energy-uk.org.uk.

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Response to individual sections issues identified in the Ofgem Open Letter

3. Transmission Network Use of System (TNUoS) Charging

- 3.1. TNUoS charging is the source of the most significant distortion currently impacting network charging. EU Regulation 838/2010 limits average transmission charges for generators in European Union member states. The range of allowable average transmission charges for generators in Great Britain (GB) is €0-2.5/MWh, and the range for most other EU countries is €0-0.5/MWh. This leads to two issues:
- The first relates to the amount of TNUoS recoverable from transmission connected generation capped at €2.5/MWh and the fact that the cap is not index linked. This will effectively reduce the amount recoverable from generation over time.
 - The falling level of cost recovery from transmission connected generation also means the amount recovered from demand will increase over time.
- 3.2. Both of these points mean that any shortfall TNUoS revenue must be recovered from the demand element within the TNUoS calculation. TNUoS is levied on demand taken from the Transmission System at the Grid Supply Point. There are two methodologies for charging Demand TNUoS. For customers that are half-hourly metered, charges are calculated on a “triad” basis. If there is no consumption during this period, customers do not pay any TNUoS charge. For non-half-hourly metered customers charges are based on the annual site usage between 4pm and 7pm each day.
- 3.3. The cap on the amount of TNUoS recoverable from generation, combined with the large increases in allowed transmission expenditure means that the demand element of TNUoS is increasing. The residual element of TNUoS is collected to make sure that National Grid is paid the correct total amount of revenue. The total demand residual element of TNUoS being recovered from Triad may therefore not be considered as cost reflective. Whether a customer, or a generator consumes/generates at peak, it is the locational elements of the tariff which exists to provide an appropriate economic price signal for siting generation and demand. We note that the locational signal is only one element contributing to the decision in relation to where demand/generation connects. Other factors include for example wider infrastructure availability, access to skilled labour and the risk of site flooding.
- 3.4. In the short term, we consider that the CUSC modifications currently being progressed by industry may develop reasonable solutions to the current TNUoS methodology which will lead to a more cost reflective charging regime in GB. These should be fully supported by a robust evidence base with a cost benefit analysis to ensure that customers are better served by any reforms and also that parties are not unfairly discriminated against.
- 3.5. In the medium to long term, we support a full review of the TNUoS methodology as part of a holistic charging review which should encompass all charging arrangements especially the Transmission/Distribution interface. This should include issues such as exporting GSPs and Triad to ensure network charging is cost reflective with appropriate signals being produced to incentivise the right behaviour from market participants. If this is not carried out the consequence for the consumer will be increased costs which arise due to the inefficiencies in the charging framework.

4. Balancing Services Use of System (BSUoS) Charging

- 4.1 BSUoS is calculated ex-post and published 5 days after the HH period it relates to. BSUoS is incredibly difficult to predict and as such does not provide a useful price signal in terms of responding to the needs of the system. There is, therefore, an argument that BSUoS should be managed by the application of a fixed charge with any under/over recovery applied at a later date. This is currently being progressed under the Connection and Use of System Code

(CUSC) Modification Proposal CMP250² which will look to fix BSUoS ex-ante for 12 months ahead. Further work should also be considered to look at whether individual licenced Distributed Generators that negatively impacted the system should pay towards BSUoS in the future. Ofgem should not exclude BSUoS (along with the other elements of embedded benefits noted in the open letter) from a holistic review of charging due to the associated issues.

5. Transitional arrangements

- 5.1. Several of our members have either built or made significant investment commitments on power stations which are partially financed on long standing principles of electricity network charging (Triad avoidance). Depending on the nature of the change in network charging following CUSC Modifications CMP264³, CMP265⁴ and CMP271⁵ being sent to Ofgem for determination transitional arrangements may need to be considered in order to protect investor confidence.
- 5.2. Sudden changes to network charges could also have impacts on the operation of plant in the near term with the potential for the Triad avoidance to be reduced if the same price signals from Triad are no longer available. This could significantly increase risk of insufficient system margin at times of peak demand. Ensuring that we have an appropriate charging regime in place will allow investments to be based on enduring cost reflective charging arrangements. This would also promote accurate energy and scarcity pricing without distortions from Triad. Ofgem should consider the implications for security of supply and the cost to consumers in determining whether transitional arrangements are appropriate. In addition implementation lead times should ensure that suppliers have time to adjust, as appropriate, customer charges/tariffs as well as IT systems.

6. Potential distortions in relation to transmission or distribution connections

- 6.1. We agree that the Quicker and More Efficient Connection (QMEC) work being carried out by the DG DNO Steering Group and overseen by Ofgem has introduced steps to improve the existing connection regime. Some of the QMEC work that has appeared already includes DECC's consultation on the reintroduction of Upfront Assessment and Design Fees which was issued in March 2016. The proposal was to introduce Upfront Assessment and Design fees which will curb the amount of 'speculative applications' and therefore alleviate congestion and provide a more realistic view of connections. The decision to implement this change is now with BEIS and due to recent changes within government could now be significantly delayed. As Ofgem has overseen the majority of QMEC work it would be beneficial for industry if Ofgem were to support the changes being brought in as early as possible.
- 6.2. Whilst there is competition in contestable works where an Independent Connection Provider can be appointed, costs associated with connection can vary significantly depending on the nature of the connection required.
- 6.3. There are also differences in the treatment of transmission and distribution generators with transmission able to connect early through the Connect and Manage policy. Whereas on the distribution network connection agreements may include profiled export restriction to enable connection at lowest cost, also known as non-firm agreements, but this is dependent on the Distribution Network Operator. Non-firm agreements or 'flexible connection agreements' are agreements whereby generators may be asked to stop generating if network capacity is not available (without compensation). This creates an uneven playing field for different generator types which needs to be considered when reviewing the total charges faced by generators

² CMP250: <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP250/>

³ CMP264: <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP264/>

⁴ CMP265: <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/CMP265/>

⁵ CMP271 Improving the cost reflectivity of demand transmission charges

connecting to the transmission and distribution system as well as the connection charges which are deeper for distribution connected generation.

7. Related work

- 7.1. We are aware of multiple changes either being progressed through the code modification process⁶, by BEIS⁷ or other potential changes being discussed at industry forums. There are a significant number of changes being considered which, individually, may not have significant impacts on the charging regime, however when reviewed in a more holistic manner could result in a significant amount of change impacting both transmission and distribution connected generation. This could lead to further issues in relation to the operability of the both networks.
- 7.2. In the short term, we consider that the CUSC modifications currently being progressed by industry may develop reasonable solutions to the current TNUoS methodology which will lead to a more cost reflective charging regime in GB. These should be fully supported by a robust evidence base with a cost benefit analysis to ensure that customers are better served by any reforms and also that parties are not unfairly discriminated against.
- 7.3. In the medium to long term, a holistic review of charging arrangements should be carried out. There are several options to progress holistic changes, our preference is for Ofgem to initiate a Significant Code Review (SCR) in relation to the existing network charging regime to ensure all related charging issues are discussed and developed in a structured manner. We also note that changes can also be led by National Grid or be progressed through the relevant code panels with industry raising modifications.
- 7.4. We consider that if the SCR route is chosen then a project board should be established with an independent chair to ensure the charge process is managed efficiently and independently. This could follow the same structure as the New Electricity Trading Arrangements (NETA) implementation model which had multiple specialist workgroups feeding into the steering committee with Ofgem providing oversight. Although still early in the process, Ofgem's Switching Significant Code Review programme blueprint phase has also adopted a similar process.
- 7.5. As noted above, Energy UK's charging report is appended to this response to provide an overview of the different areas of charging that we consider should form the core of a holistic network charging review.

⁶ We are currently aware of the following charging related modifications: CUSC CMP250, CMP251, CMP255, CMP261, CMP262, CMP267, CMP268, CMP269, CMP270 BSC P342, P348, P349, P350 DCUSA DCP274, DCP268, DCP228, DCP222, DCP169.

⁷ BEIS have announced that a consultation on how the Capacity Market Supplier Levy charges are recovered (from a gross to a net demand charging basis) will be published in the autumn.