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Open letter: Charging arrangements for embedded generation
September 23, 2016

Dear Frances,

I am responding on behalf of Uniper UK Limited to your open letter on charging arrangements for embedded generation. We found the letter to be extremely helpful in setting out Ofgem's perspectives on this issue and we share Ofgem's concerns about the current level of benefits available to exemptible embedded generation, particularly from the current demand TNUoS regime. We also agree that the demand residual element of charging needs to be addressed as a matter of urgency and believe that an option that Uniper has proposed as a solution to CUSC modifications CMP264 and CMP265 provides the best way to do so, whilst also allowing scope for more fundamental change following a more comprehensive and considered longer term review.

Our more detailed views follow.

The nature of the current problem

We agree with Ofgem that there is a significant distortion caused by the present level of embedded benefits. Although embedded benefits have been a long standing feature of the charging arrangements, previously the effects have not been significant which is why the industry generally has been unsupportive of change until now. This was mainly because of the limited amount of embedded generation which was able to access embedded benefits, so it was perceived that there was not a material issue with respect to competition in the generation market.

However, in recent years, primarily driven by the introduction of the Capacity Market, we have seen a significant increase in the amount of generation which has been able to take advantage of this distortion, coupled with a dramatic increase in the size of the embedded benefit itself. This has resulted in a significant problem which threatens to drive an inefficient wholesale market and ultimately deliver poor value for money for customers.

We also agree that these issues are primarily driven by the TNUoS charging regime and in particular the demand residual charge. The TNUoS locational charge remains fit for purpose as the signals that embedded and transmission connected generators are exposed to are largely equivalent. There are some differences driven by the way that charging zones for both are derived. However, as embedded generation is largely

metered and settled through the Supplier Volume Allocation processes under the Balancing and Settlement Code (BSC), there are good practical reasons why it should continue to be exposed to the demand locational charge. Similarly, the fact that embedded generation does not pay the generation residual charge is not currently a cause for significant concern as this element is not of a particularly high value.

Ofgem's assessment of the particular issues that the current TNUoS distortion is causing is correct, notably:

- This is leading to inefficient generation investment decisions. Eligible embedded generators receive a circa £45/kW subsidy compared with other generation, distorting investment towards such plant, regardless of its real economics.
- This is leading to the closure of transmission generation which would not have done so otherwise, because it cannot compete due to the distortion in the market.
- This will also distort dispatch at peak times when embedded plant generates in order to meet the triad periods.
- This is distorting the Capacity Market auctions as plant in receipt of embedded benefits can unfairly undercut other plant who have to pay transmission charges.
- This distorts innovation in the market towards parties who can best capture embedded generation. This means that, even within the category of plant eligible for embedded benefits, certain plant are rewarded more than others, for example small gas plant compared with embedded wind farms.

We would also note another significant consequence of the current regime. Customers actually pay more for the transmission network as a result of embedded benefits. This cost to consumers rises as the amount of embedded benefits paid out to such plant increases. This is because total transmission system costs are always recovered regardless of the amount of embedded generation that receives benefits. This cost is in turn recovered by suppliers from their customers.

However, suppliers also have to recover the costs of paying generators a significant share of the embedded benefits that they receive, which results in an additional cost to customers. This view is backed up by analysis undertaken by National Grid for CM264 and CMP265 which indicates that customers could be overcharged for TNUoS costs by some £340m at present and that under the current system this is forecast to rise to around £650m in 2020/21, approximately £2.36bn more than is necessary over the next five years.

We have already seen that the embedded generation regime has driven a massive increase in embedded generation coming through in the Capacity Market auctions, some of it high polluting plant which has been a particular cause of concern for the Government. With another two Capacity Market auctions taking place in December, something clearly needs to be done and urgently.



What can be done

As we see above, the pressing issue for the industry is to address the distorting and escalating demand residual. The good news is that this can easily be addressed by potential alternative solutions to the two CUSC modifications CMP264 and CMP265, which were raised by Scottish Power and EdF respectively, and which are presently being assessed by the industry. We fully support the intent of these modification proposals to address the real and present threat that the current arrangements pose to forthcoming Capacity Auction outcomes. However, we believe that the original solutions for these modifications can be improved upon, particularly as they tend to introduce a level of discrimination due to grandfathering of the present arrangements for certain subsets of embedded generation.

We believe that an alternative proposal which we have put forward for consideration is the best solution, as it introduces new arrangements for all exemptible embedded generation and seeks to reflect the actual benefit which such plant brings to the transmission system.

Uniper's alternative, formally referred to as WACM3 under these proposals, is simple:

- Demand would be charged TNUoS based on the present triad mechanism, on the basis of the locational and residual tariffs, but against the level of gross demand consumed at that time, not offset by the export of embedded generation.
- Exemptible embedded export would be exposed to an embedded benefit payment consisting of the following:
 - The demand locational charge. To be clear, where demand pays a locational charge this will effectively be paid to generators.
 - A payment to reflect the costs that embedded generation saves in investment in GSPs. This would be calculated from price control data using the same analysis that National Grid undertook for its last review of embedded benefit charging. We note that Ofgem indicates in its open letter that this benefit appears to be the only one which has been satisfactorily demonstrated to date. We agree and in particular would point out that efforts to seek a greater level of benefit based on supposed benefits to the wider network would only double count costs which are presently reflected through the locational charge. This would be non-cost reflective and over reward embedded generation in another way.
- Charges would be floored at £0/MWh to prevent a perverse incentive for embedded plant not to generate at peak times simply to avoid triad.

This proposal would require a change to the BSC to provide the collection of gross demand and gross export data per GSP Group. However, similar data is already calculated by Elexon for EMR purposes and we believe that this could be expedited reasonably quickly, and in particular would allow implementation by 1 April 2018. At the latest, we believe that this change should be implemented by 1 April 2019.

We do not believe that any grandfathering arrangements would be justified. We have already seen the distortions that providing special non-cost reflective charging for a

subset of generators can cause. Similarly, we do not believe that phasing of these options would be appropriate. The benefits of making this change should be experienced by customers as soon as possible. We have seen above that they are presently overpaying by around 15% over the present demand TNUoS bill. The current distortions to the wholesale market should be removed as soon as possible.

Our modification provides a number of important benefits:

- It is cost reflective.
- It is not discriminatory.
- It is simple and can be implemented quickly.
- It provides a clear and stable signal to embedded generation of the benefits it provides to the network.
- It results in lower TNUoS costs for customers.
- It addresses the pressing problem with the current regime, but can be built upon as part of a longer term review.

We therefore believe this is the best option to take forwards and would urge Ofgem to do so without undue delay.

Longer term issues

Our proposed solution to CMP264 and CMP265 above recovers the demand residual on the current method, ie across the Triad. There may be better ways of recovering costs currently recovered through the demand and generation residual charges, such as doing so on a MWh basis across gross demand during the year, to reflect the fact that this is simply a cost recovery mechanism. We have deemed this as beyond the scope of the current modifications on the table, particularly in light of discussions at the industry workgroups, which is why we have not tried to incorporate this element into our proposal. However, in the longer term this issue could be addressed as part of a wider more fundamental longer term review of charging.

Another issue which could be addressed as part of such a review is that of BSUoS charging. We believe that BSUoS is simply a cost recovery mechanism, which is why we are supportive of the present CUSC modification CMP250 that seeks to stabilise the cost of BSUoS to the market so that it can be recovered in a more appropriate manner, which will bring benefits to customers. However, as BSUoS is also in effect an avoidable cost for some parties, but an embedded benefit to others, we agree with Ofgem that this is likely to be distorting despatch decisions too. Therefore, whilst not as urgent an issue as TNUoS charging, we believe that the BSUoS embedded benefit should be addressed in the medium term too.

An additional distortion that BSUoS causes is in respect of cross border trade. Presently, energy flows across interconnectors are not subject to BSUoS charges whereas GB based generation is. This means that GB generation is discriminated against and cannot compete on an equivalent basis. We believe that two options exist for addressing this issue. Either cross border flows of energy should be exposed to BSUoS charges, or GB generation should no longer be charged. Both these options should be addressed as part of any longer term review.



Conclusions

In summary, we agree with a large number of the points raised in Ofgem's letter. The immediate issue to address is the significant distortion that demand TNUoS residual charging is presently causing in the market, which not only affects competition, but also directly results in customers paying too much for the transmission network. This needs to be removed soon in a simple, cost reflective and non-discriminatory manner. We strongly believe that the solution, WAM3, put forwards by Uniper as part of the CMP264 and CMP265 industry discussions is the best option for doing so. It would provide a level playing field on which all generation can compete going forwards, particularly into the next Capacity Market auctions, whilst not preventing further incremental improvements to be made to the charging arrangements as part of a more fundamental review.

I hope that the above comments prove helpful. Please do contact me in the first instance, should you wish to discuss this further.

Yours sincerely

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