

Ofgem minded-to position on CMP264/5

RenewableUK consultation response

April 2017

About RenewableUK

RenewableUK represents over 440 organisations across the value chain in onshore and offshore wind, wave, and tidal industries. In 2015, these technologies generated 12% of the UK's electricity needs, representing 52% of the electricity generated by all renewable technologies during that year.

Our membership spans transmission- and distribution-connected generation. As of 2015 there was a total of 13.2 GW of wind power installed in Great Britain¹. 7.8 GW of this is visible to National Grid² (transmission connected generation and embedded generation holding a BEGA). We therefore estimate that in 2015 there was 5.4 GW of embedded wind connected to the distribution networks.

Summary

RenewableUK with Ofgem considers that the overall ambition of the energy system should be to realise one characterized by commercial arrangements that allow all market participants, whether at transmission or distribution level, to compete on a level playing field with cost-reflective charging. We consider that this will inevitably lead to distributed generation continuing to play a valuable role. We also consider that this entails that where demand and generation on the distribution network create the same total system benefit, it should be rewarded similarly.

We believe that this vision is in line with BEIS and Ofgem's recent call for evidence on a smart, flexible system.

The need for change

It is imperative that costs to consumers are justified and that where excessive costs are being incurred, action is taken in a timely manner.

We are clear that the current system has deficiencies and, as a result, we fully support Ofgem's intention to review system charging. However, we do not support the minded-to position for WACM 4 as we are concerned that decision will not effectively address these distortions for the reasons set out below.

We therefore ask that a more careful, interim change is put in place that is supported by robust evidence prior to a more enduring solution being put in place through the Targeted Charging Review (TCR).

A robust evidence base

The minded-to decision for CMP264/5 places considerable emphasis upon the value of 'x' regarding the value of embedded generation.

In the short-term, we do not consider that it is appropriate that Ofgem rely upon the figure of £1.62/kW when assessing the value of embedded generation. It is clear from National Grid's informal review paper that this figure was not their final and comprehensive view of the value

¹ RenewableUK (2017) UKWED

² National Grid (2017) TEC Register and embedded register

of embedded generation to the system³ and that taking this figure does not take into account the bulk of National Grid's analysis within that paper which gives a much clearer view of the complexity of estimating the impact of embedded generation on the transmission network. Therefore, we do not consider it prudent or cost-reflective to ascribe the value of 'x' to such an inconclusive estimate.

In the longer term, we consider it important that the assessment of embedded generation's value does not presume the enduring role of Triad peak charging but instead involves consideration of placing stronger weight upon year-round network use in how network charging is defined.

With respect to the modelling undertaken, Ofgem have stated clearly that the supporting evidence for this change is not critical but rather validates the overall decision – in that it shows an overall benefit or cost to consumers⁴. We do not consider that Ofgem have undertaken robust enough an assessment to be confident in its view that the proposed change will not create a cost to consumers. More specifically, we consider that the following should be assessed.

Firstly, the impact upon network reinforcement is not currently considered because it is assumed that most new CCGT would be sited on an existing or recently decommissioned plant with limited additional costs and, more generally, that any quantitative estimates would be extremely uncertain⁵. Further, it is considered that the most likely outcome is a net benefit to consumers and that thereby by not including it, the estimates of overall consumer benefit are likely to be an under-estimate⁶.

We do not consider that this approach is consistent with that taken with other components of the modelling which are also subject to some uncertainty or that it should be assumed that the effect will be of overall benefit to consumers. Network reinforcement should be included in the scope of the modelling.

Secondly, the only capex scenarios used in the modelling were BEIS' low capex assumptions – guided by historical calibration of the model with previous Capacity Market auctions⁷. New CCGT plant has struggled to clear in the Capacity Market auctions and we do consider therefore that this historical calibration should be treated carefully and does not negate the need to test the range within this important assumption. The sensitivity of the overall net benefit or cost to consumers to this assumption should be considered within the modelling.

Finally, the sensitivity of the overall result should also take into account broader scenarios of change in the behaviour of distributed generation.

We consider that the scope of the impact assessment is significant enough to the result that the review and agreement to it should have formed part of the CUSC modification process.

We therefore ask that Ofgem consults on the scope of the impact assessment that validates this decision to include all system users and consequential impacts and then repeats the assessment to ensure that there is not a net cost to consumers.

³ National Grid (2014) Informal paper: Review of embedded (distributed) generation benefit arising from transmission charges

⁴ Ofgem supplementary workshop, 21st March 2017

⁵ Frontier economics (2017) Transmission charging arrangements for embedded generation

⁶ Ofgem supplementary workshop, 21st March 2017

⁷ Ofgem supplementary workshop, 21st March 2017

Encouraging investor confidence

We agree with Ofgem's position that network charging should not be regarded as certain as this would place the risk of future changes entirely upon the consumer. It is important that network charging is predictable within reasonable bounds.

Change, in of itself, to embedded benefits would therefore not undermine investor confidence as this is an acceptable risk in energy investments. However, a robust evidence base and a careful approach for such a significant change from longstanding network charging principles is crucial in maintaining investment confidence.

Without this, this change risks undermining investor confidence in new embedded renewable energy capacity and that erosion of investor confidence is being reflected in terms offered to projects; including short and medium-term network charging payments now being credited at significantly less by the investment community.

Although increases to cost of capital from eroding investor confidence were considered within the scope of the modelling, it was considered only with respect to CM units⁸. It is clear that the impact is broader than this and therefore, this should be assessed as part of the modelling.

Impact on existing generation

As recognised in the minded-to decision, embedded wind plant will not target an increase in their output solely to access the embedded benefit value available at triad periods but their delivery at these times is non-zero across the fleet. Thus, embedded benefits do constitute a small proportion of annual revenue⁹.

Existing generation, particularly those supported by the RO scheme that does not accommodate changes to the wholesale price, cannot respond to this investment signal and so will need to simply absorb this cost. Further to this, it is likely to make the already limited market in unsubsidised projects through corporate PPAs more difficult.

Although the impact on revenue will be limited, it nonetheless underlines the importance of industry processes that effectively allow the participation of all affected system users. Many of our members developing and owning embedded wind plant found it difficult to participate in the process which seeks to reduce triad revenues as they are not parties to the CUSC.

Recommendations

To ensure the most cost-effective solution for consumers, it is important that significant changes are well-evidenced, robust to a range of future scenarios and address the root issue. We do not consider that this minded-to position achieves these requirements. Therefore, we would like to make the following recommendations.

Before any action is undertaken, the scope of the impact assessment that validates this decision should be revised to include all relevant impacts and agreed with industry. The assessment should then be repeated to ensure that there is not a net cost to consumers.

The TCR should be widened in scope to include a more holistic assessment and revision of total system network charging such that an enduring solution, addressing arbitrary and inefficient charging signals across a range of users, can be implemented. On 25th March, the afternoon minimum demand was lower than the overnight minimum for the first time. This follows increasingly flattening winter peaks, diverse patterns of demand and the increasing importance of managing the summer minimum to grid resilience. These trends challenge the

⁸ Frontier economics (2017) Transmission charging arrangements for embedded generation

⁹ Ofgem (2017) Minded-to decision and draft impact assessment of industry's proposals

enduring suitability of structuring network demand charging solely through winter half-hourly peaks in demand and underline the importance of the TCR considering reform towards reflecting year-round network usage.

With a widened scope, we still consider that the TCR can conclude its findings on this question in mid-2018 – a few months after the minded-to decision on CMP264/5 is intended to be implemented in April 2018. As it would thereby include a more detailed consideration of reform to network charging and its application to embedded generation, the TCR's findings should be considered the enduring solution to the current distortion – rather than as presently planned, the final decision on CMP264/5 being taken into account when considering other elements of embedded benefits through the TCR¹⁰.

We consider that it has not been robustly established that WACM 4 meets the CUSC objectives compared to the alternatives. Therefore and on condition that it is considered an interim solution before the implementation of a broadened TCR, we ask that Ofgem considers an alternative approach that includes an assessment by Ofgem of a value for 'x' that is a more robust estimate of the value of embedded generation.

Phased implementation should be put in place and reflect the timescales for implementing an enduring solution through the TCR.

¹⁰ Ofgem (2017) Targeted Charging Review: a consultation

Question 1: Do you agree with our problem definition and that the Transmission Network Use of System (TNUoS) Demand Residual (TDR) payments to sub-100MW Embedded Generation (“smaller EG”) are distorting dispatch, wholesale price, the capacity market (CM) and that they pose an increased cost to consumers?

We agree in part.

Within the scope of the definition, we agree that the escalating value of the TNUoS demand residual is causing a distortion in the CM. We do not consider that TDR payments to embedded variable generation are creating distortions or poses an increased cost to consumers given that such payments cannot impact dispatch decisions and variable generation cannot access CM revenues.

More broadly, we do not consider that the problem definition correctly characterises the scope of the issue. Paragraph 2.9 notes only that the combination of increases in smaller embedded generation coupled with an increase in the total TNUoS charges to be recovered have led to higher TDR payments to embedded generation. In defining the problem, these factors cannot be addressed in isolation from the broader changes that are causing them.

In particular, the problem definition implicitly assumes that the current structure based on half-hourly peak periods of network demand will endure. On 25th March, the afternoon minimum demand was lower than the overnight minimum for the first time. This follows a more general trend of increasingly flattening winter peaks, increasingly diverse patterns of demand and the increasing importance of managing the summer minimum to grid resilience. These trends challenge the long-term future suitability of structuring network charging solely through half-hourly winter peaks in demand.

Question 2: Do you agree that rising TDR payments to smaller EG is a problem which needs to be addressed?

We agree that the rising TDR does need to be addressed. However, the way in which it is addressed must be more robust than proposed in this minded-to decision.

Question 3: Do you agree with our interpretation of the applicable CUSC objectives?

We agree with the statement of the applicable CUSC objectives.

Question 4: Do you agree with our assessment against the applicable CUSC objectives and statutory duties? Please provide evidence for any differing views.

We do not agree.

National Grid's informal review paper did not establish, as referenced in this minded-to position, that “the cost of grid supply point infrastructure investment (GSP investment) is the only evidenced cost that embedded generation can help to avoid”. We do not consider that £1.62/kW is sufficiently robust to adopt as the most appropriate value of ‘x’.

Assessments of facilitating competition that assume the closer to this figure the level of payment is made, the more competition is facilitated is therefore not correct.

We therefore also do not consider that assessments of cost-reflexivity that similarly assume this as the correct level of payment are correct.

The minded-to position also notes that through the workgroup process, little evidence was produced to show that a payment above this would be reflective of system savings. We do not consider that it therefore follows that the value suggested is the correct value and moreover we note that the process by which this minded-to position has been arrived at has been accelerated.

Question 5: In our assessment against the objectives, do you believe there are any relevant assessments we have not taken into account?

Given the lack of robust estimate for the value of embedded generation, Ofgem should have undertaken an independent assessment of this value.

Question 6: Do you agree with our assessment that, in this instance, grandfathering as set out in the WACMs would be unlikely to best facilitate the CUSC objectives when compared to the other options available to us?

We note that grandfathering is not standard practice for transmission charging. On condition that this decision is considered as an interim solution before the TCR delivers its findings, we do not consider that grandfathering would be necessary.

However, if the final decision is implemented as set out in this minded-to decision, we consider that grandfathering may be necessary.

Question 7: Do you agree with our assessment that the value of the avoided GSP investment cost best facilitates the applicable CUSC objectives?

As stated in Question 4 –

We do not agree.

National Grid's informal review paper did not establish, as referenced in this minded-to position, that "the cost of grid supply point infrastructure investment (GSP investment) is the only evidenced cost that embedded generation can help to avoid". We do not consider that £1.62/kW is sufficiently robust to adopt as the most appropriate value of 'x'.

Assessments of facilitating competition that assume the closer to this figure the level of payment is made, the more competition is facilitated is therefore not correct.

We therefore also do not consider that assessments of cost-reflexivity that similarly assume this as the correct level of payment are correct.

The minded-to position also notes that through the workgroup process, little evidence was produced to show that a payment above this would be reflective of system savings. We do not consider that it therefore follows that the value suggested is the correct value. The process by which this minded-to position has been arrived at has been extremely accelerated and we would consider that the manner in which the process has been undertaken has been the cause of relatively little evidence presented.

Question 8: Do you agree with our assessment of the impacts on security of supply? Please provide evidence for provided views.

We consider that the impact assessment has not fully assessed the potential impact on security of supply; as shown, for example, in recent comments made by Frontier Economics' energy director that 'there is a strong risk the owners of these 'options' – they are not yet projects – just pay the penalty [for non-delivery] and move on'¹¹.

We consider that there is a significant risk that such impacts may materialise and that therefore action should not take place whilst they remain unexamined.

Question 9: Please provide evidence to show if there are other cost savings which small EG drive in comparison to larger (over 100MW) EG on the distribution system.

The wider economic impacts of embedded generation on the distribution system and the energy system should be properly examined through a holistic review. CMP264/5 was on an accelerated timescale and was too narrow in scope to investigate this key question.

Examples of such cost savings include, for example, the triad-shifting behaviour of embedded variable generation as submitted by Vattenfall in response to Ofgem's open letter and which has not been explicitly recognised in this minded-to position.

Question 10: Is there other evidence that payment above avoided GSP/generation residual would better facilitate the applicable objectives?

As stated above, we consider that a more robust estimate of the value of embedded generation would better facilitate the applicable CUSC objectives.

Question 11: Do you believe you have a legitimate expectation or contractual right for the continuation of TDR payments? If so, please provide evidence.

The process by which the Triad embedded benefits have been revised goes against a legitimate expectation for changes to be well-evidenced and considered.

Question 12: Do you agree with our assessment of the distributional issues?

We do not agree.

We consider that Ofgem's approach to assessing the distributional issues does not accurately reflect the functioning of the system.

Question 13: Are there any sectors that we may have overlooked?

No comment.

Question 14: Do you agree with our modelling approach?

We consider that the scope of the impact assessment is crucial to the resulting findings of either a net overall benefit or cost to consumers. The scope of the impact assessment should therefore have been subject to review and agreed as part of the CUSC working group process.

As detailed above, the scope of the impact assessment should be broadened and the sensitivity of its findings tested against a number of credible scenarios.

¹¹ ICIS (2017) [‘Looming scandal’ over sale of UK capacity market new-build](#)

Question 15: Do you think that our background assumptions and using FES data is an appropriate approximation for status quo?

As stated in Question 14 –

We consider that the scope of the impact assessment is crucial to the resulting findings of either a net overall benefit or cost to consumers. The scope of the impact assessment should therefore have been subject to review and agreed as part of the CUSC working group process.

As detailed above, the scope of the impact assessment should be broadened and the sensitivity of its findings tested against a number of credible scenarios.

Question 16: Where WACMs are not modelled directly, do you think our assessment is appropriate (see appendix 8 for detail)?

We do not agree that the assessment is appropriate.

In line with those WACMs considered directly, we do not consider that the approach to understanding the impact on facilitating competition and furthering cost-reflexivity have been assessed correctly.

Question 17: Of the options available to us, do you agree that WACM4 best facilitates the applicable CUSC objectives?

We do not consider WACM4 best facilitates the applicable CUSC objectives.

We consider that it has not been robustly established that WACM 4 meets the CUSC objectives compared to the alternatives. Therefore and on condition that it is considered an interim solution before the TCR, we ask that Ofgem considers an alternative approach that includes an assessment by Ofgem of a value for 'x' that is a more robust estimate of the value of embedded generation.

Question 18: Do you believe that an implementation date of April 2018 best facilitates the applicable CUSC objectives?

We consider implementation may appropriately be implemented from April 2018 as long as it is considered an interim solution and the phasing reflects the timescales for implementation of the TCR findings.