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Date: 23 January 2019

Open letter on implications of charging reform on electricity storage

I thought it would be helpful to describe how proposed changes to systems and network charges will impact storage. This is with particular reference to our Smart Systems and Flexibility plan with government,[1] the Targeted Charging Review (TCR) Significant Code Review (SCR)[2] and the Electricity Network Access and Forward-Looking Charging SCR (Access reform).[3] We have recently published our TCR minded to decision for consultation, and we launched the Electricity Network Access and Forward-Looking Charging SCR in December last year. The Access reform work is looking at the efficient allocation of capacity on the networks, which may benefit storage providers if they can provide benefits and cost savings to the system.

Outside of these SCRs but closely related, is the Balancing Services Task Force led by the Electricity System Operator (ESO) under the Charging Futures arrangements.[4] We will take account of the Task Force's conclusions when we make our final decision on the TCR. In addition to Ofgem-led reform, industry is progressing a number of code modifications which govern the way in which charges are set and levied for the transmission and distribution networks, which will also have implications on storage providers.

This letter sets out the policy intent of our charging reforms, and how we think that industry-led modifications are critical to reaching a level playing field between storage (excluding any final demand) and generation.

The relevant charges include:

- Distribution Use of System (DUoS) charges, in the Distribution Connection and Use of System Agreement (DCUSA), which charge for use of the distribution network
- Transmission Network Use of System (TNUoS) charges, in the Connection and Use of System Code (CUSC), which charge for use of the transmission network
- Balancing Services Use of System (BSUoS) Charges, in the CUSC, which recover the cost associated with the ESO operating the existing electricity system, including costs for constraints, procurement of system balancing services and operations costs

[1] https://www.ofgem.gov.uk/system/files/docs/2017/07/upgrading_our_energy_system_-_smart_systems_and_flexibility_plan.pdf
[2] https://www.ofgem.gov.uk/electricity/transmission-networks/charging/targeted-charging-review-significant-code-review
[3] https://www.ofgem.gov.uk/electricity/transmission-networks/charging/reform-network-access-and-forward-looking-charges
[4] https://www.ofgem.gov.uk/system/files/docs/2018/11/decision_to_launch_a_balancing_services_charges_taskforce.pdf

With respect to the DCUSA, there were two modifications which sought to remove residual charges from generators connected to the distribution network and would therefore affect electricity storage. One related to the Common Distribution Charging Methodology (CDCM) and the other to the Extra High Voltage Distribution Charging Methodology (EDCM). The modifications were:

DCP319 - removal of residual charging for embedded generators in the CDCM, and

DCP321 - removal of residual charging for embedded generators in the EDCM.

The previous proposer of these DCPs withdrew the modifications and industry is now considering its next steps. We encourage any interested parties to come forward soon to take on the proposer role for new modifications that will promptly address residual charging for storage in the CDCM and EDCM.

For transmission codes, the proposed modifications would remove, respectively: the transmission residual charge for demand used by generation facilities (including storage where it acts as generation); and liability for balancing services charges for the same types of storage facilities. The modifications are:

CMP280 - creation of a new generator TNUoS demand tariff which removes liability for TNUoS demand residual charges form generation and storage users, and

CMP281 - removal of BSUoS charges from energy taken from the National Grid system by storage facilities.

The CUSC modifications, which had also been withdrawn, have received new proposers and are continuing with a revised scope. The TCR is consulting on proposals and implementation timelines for wider reform, which may not result in full implementation until 2023. We believe the necessary changes for storage should happen sooner than this, given the proposals set out in our 2017 smart systems flexibility plan, and our expectations are that modifications could be enacted as soon as the 2020/21 charging year.

In our Smart Systems Flexibility Plan, with government, we noted that the current charging regime could put some storage at a disadvantage to other types of generators and flexibility providers. We also noted that, in the regulatory framework, we consider storage a form of electricity generation where it behaves as such. With this in mind, our view is that charging arrangements should not discriminate between these types of storage and generation.

We have recently published our TCR minded to decision and impact assessment for consultation, the launch letter for the Electricity Network Access and Forward-Looking Charging Review SCR and will shortly publish our next steps on the generation licence.

In the following sections we set out our expectations for impacts of these reforms on the different elements of charging with reference to storage technologies.

TNUoS locational charges

We have not proposed any changes to the current application of locational charges, but this is subject to review by the Electricity Network Access and Forward-Looking Charging SCR, which will consider the manner in which TNUoS locational demand tariffs are levied. Under the current regime, we expect storage providers to continue to face locational charges for both 'import' and 'export'.

TNUoS Residual charges

We believe that storage should only face one set of residual network charges, and that those should be applied in a manner consistent with generation.[5]

In the TCR, we have proposed that residual charges should be applied to final demand only. The TCR proposes that generation residual charges be removed, where this is possible within the constraints of the €0/MWh to €2.50/MWh range for average generation charges.[6] To be explicitly clear, we expect this arrangement to apply to both generation and storage.

The work being undertaken on CMP280 broadly aligns with this principle by proposing to remove charges for demand used for the purpose of generation or storage for transmission-connected sites. As we have previously set out, we support the development of solutions that do not create or exacerbate distortions based on where storage connects to the network. It is for the industry to agree on how best to progress this work (including whether the outcome can be achieved through one or more separate modifications), provided that the solutions are robust, non-discriminatory and implementable in a timely manner.

We also expect that where storage or generation is located with final demand (that is not related to their generation activities) that final demand should be subject to demand residual charges in the same way as other demand sites would be. As we set out the TCR consultation document, this aligns with the approach the Low Carbon Contracts Company (LCCC) and ELEXON have set out for recovering final consumption levies.[7]

BSUoS charges

With respect to balancing system charges, our view remains that, insofar as such charges are cost-recovery charges, storage should not pay a disproportionate amount compared to other forms of generation.[8]

We have asked the ESO to launch a Balancing Services Charges Task Force to provide analysis to support decisions on the future direction of BSUoS charges. In particular, it will examine the potential and feasibility for some elements of balancing charges being made more cost-reflective and hence provide stronger forward-looking signals. If the outcome is a decision to enact more cost-reflective changes we would anticipate applying these to storage for both generation and intermediate demand, as is the case for other forward looking charges. The Task Force is due to report its findings in spring 2019. I encourage industry to monitor the conclusions of the BSUoS Task Force when progressing modifications regarding the application of BSUoS to storage.

Our proposed TCR reforms to other non-locational embedded benefits will address the disparity between the BSUoS charges faced by larger generators and the benefits received by smaller distributed generation, but would not on their own address the issue for storage.[9]

Proposal CMP281, being progressed by industry to remove balancing charges on demand taken by storage (ie removing BSUoS charges from intermediate demand), would appear to broadly align with our stated principles, insofar as BSUoS is a cost recovery charge. But we expect the workgroup to monitor the outcomes of the BSUoS Task Force closely.[10]

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[5] https://www.ofgem.gov.uk/system/files/docs/2017/03/tcr-consultation-final-13-march-2017.pdf, p.9. states 'We think that storage should be treated as generation for the purpose of setting all residual charges, and so should not pay demand residual charges for either transmission or distribution.'

[6] https://www.ofgem.gov.uk/system/files/docs/2018/11/annex_5_-_reform_to_non-locational_embedded_benefits.pdf, pp.9&10

[7] https://www.ofgem.gov.uk/system/files/docs/2018/11/targeted_charging_review_minded_to_decision_and_draft_impact_assessment.pdf, pp.9,10&16.

[8] *Ibid,* pp10&11.

[9] Annex 5 provides details of the proposed BSUoS changes though the TCR for smaller embedded generators to reduce distortion, https://www.ofgem.gov.uk/system/files/docs/2018/11/annex_5_-_reform_to_non-locational_embedded_benefits.pdf

[10] https://www.ofgem.gov.uk/system/files/docs/2018/11/decision_to_launch_a_balancing_services_charges_taskforce.pdf

CMP281 is focused on larger storage connected to transmission networks, and does not yet provide a solution for smaller storage that is embedded and is within a Supplier Volume Allocation (SVA). The current arrangements mean that distributed storage facilities are charged BSUoS when they import, and paid BSUoS when they export.

Our TCR proposals remove the harmful distortive treatment between larger and smaller distributed storage. In order to meet our aim of charging storage in the same way as generation, we would encourage industry led modifications to remove any distortions between generation and storage facilities. However, if industry proposals continue in their current form they may introduce distortions between larger and smaller storage facilities.

DUoS forward looking charges

As with transmission forward looking charges, in the TCR consultation we have not proposed any changes to the current application of forward looking charges on the distribution network, but this is subject to review in the Electricity Network Access and Forward-Looking Charging SCR. As such, storage providers on the distribution network will continue to face forward looking charges for both 'import' and 'export'.

DUoS Scaling (residual) charges

We think that storage should only face one set of residual network charges, and that those should be applied in a manner consistent with generation. In the TCR, we have proposed that residual charges should be applied to final demand only, meaning storage providers would not be charged residuals for their intermediate demand or exports onto the grid. This is already the case for the majority of distribution-connected sites. The work initiated by DCP319 and DCP321 appears to generally align with this principle, and as set out above, we encourage interested parties to raise new modifications that address this issue.

However, we expect that where storage or generation is located with final demand, that final demand should be subject to demand residual charges in the same way as other demand sites would be. As we set out in the TCR consultation document, this aligns with the approach the LCCC and ELEXON for recovering final consumption levies.

Implications of the TCR

In our initial TCR consultation, we set out our views on some changes that we considered could address relative disadvantages for storage, compared with generation, in providing the same or similar services.[11] A majority of respondents to that consultation agreed that network charges for storage should be reviewed. However, views on our specific recommended changes were mixed, with only a small majority agreeing the changes we set out would be the right ones to make. As such, we proposed not to include these changes in the TCR SCR, but allowed the industry code modification processes to be taken forward. However, we have retained the option, if necessary, to bring storage charges back into the TCR SCR.

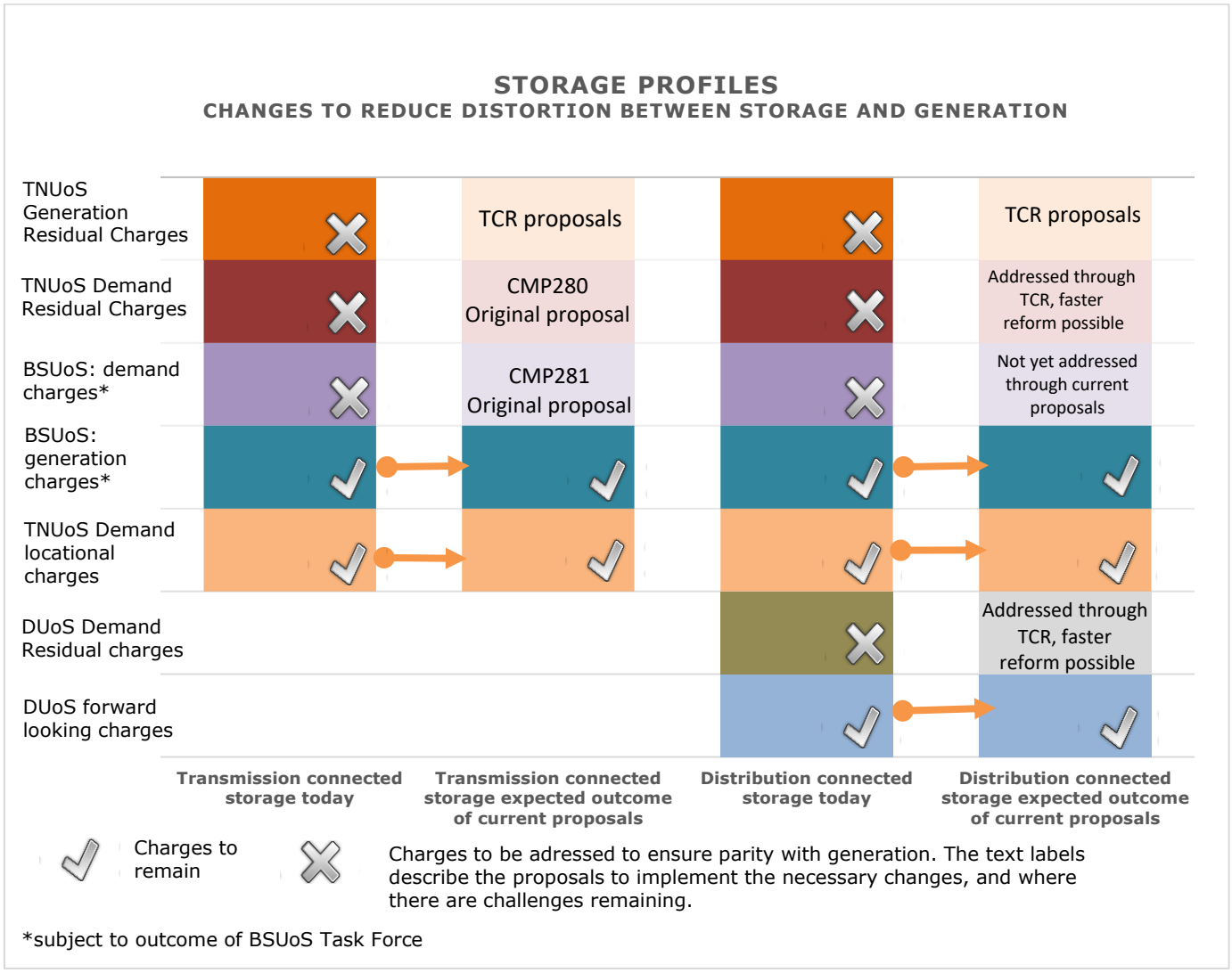
We still believe industry is best placed to deliver non-discriminatory solutions for storage charging and we expect swift progress on these modifications, especially following publication of the TCR SCR consultation on its minded to decision, impact assessment and supporting information.[12]

Summary

[11] https://www.ofgem.gov.uk/system/files/docs/2017/08/tcr_scr_launch_letter.pdf
[12] https://www.ofgem.gov.uk/publications-and-updates/targeted-charging-review-minded-decision-and-draft-impact-assessment

We think that storage, without co-located final demand, should be treated in the same way as generation. Furthermore, we do not want storage to be disadvantaged in relation to other types of generation through paying balancing services charges for both imported and exported electricity, where BSUoS is considered a cost recovery charge. We think that code modifications are the best route to address these issues and are working to ensure that such storage is not unduly disadvantaged by these changes in charges. We also expect charging arrangements for storage not to create or exacerbate market distortions, for example on where storage connects to the network, or based on whether a facility operates under a generation licence or not.

The diagram below (pending the outcome of the BSUoS Task Force, which could propose reforms to BSUoS charges) shows how the charges would change from today if the changes proposed under the TCR and that are progressing through ongoing industry led modifications are implemented. If residual (TNUoS & DUoS) charges are only levied on final demand customers, as proposed by the TCR, storage would not be liable for these residual charges. Storage, where appropriate, like generation would be liable for forward-looking charges, and BSUoS charges aligned with other types of generation. I encourage industry to monitor the conclusions of the BSUoS Task Force when progressing modifications regarding the application of BSUoS to storage.



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