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Targeted Charging Review – Webinar 04/12/2019

Detailed Answers to Audience Questions

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The following document collates answers to all the questions received during the Targeted Charging Review webinar hosted by NGESO on the 4th December 2019. In the webinar NGESO gave an overview of the changes expected to industry codes to accommodate the decision letter published by Ofgem on 21st November 2019.

What is the proposal for preserving the northern locational relative price signal demand credit after the TDR is removed from Triad?

Under the current methodology, HH metered Demand Users in the north of GB (Zones 1-6) face a negative zonal £/kW tariff on the locational component of their TNUoS bill. The TCR decision proposes no change to the calculation and levying of the HH locational component of the Demand TNUoS bill. The HH locational tariff will continue to be calculated using the outputs of the Transport model and charged to users based on their consumption over the three periods of highest transmission system demand or Triad windows. Currently, the CUSC states that demand charges should be 'floored' at £0, which means in practice demand is never paid over triad; we believe that this floor should remain, pending the outcome of the Access and Forward-Looking Charges SCR – in order to retain the relative signal, we may need to change the total amount recovered through the locational element of TNUoS. Alternatively, we could keep all HH locational signals as they are today, except with a floor of £0 in zones 1-6 – Ofgem will need to make the final determination on which approach is appropriate, or whether the floor should be removed.

The obligation to pay the Transmission Demand Residual (TDR) will no longer be based on consumption over Triad and will instead be levied on a pence/site basis through a daily charge. The Ofgem decision letter states the opinion that as the TDR exists purely as a cost-recovery mechanism it should be unavoidable and not send any commercial signals that incentivise behavioural change.

When is the Ofgem led webinar on the TCR code mods?

The Ofgem led webinar is on the 17th December 2019. More information will be emailed to those on the charging futures distribution list. If you require any further information following this please email cusc.team@nationalgrideso.com .

After TCR changes have been implemented will Triad be scrapped, or will it still be used to calculate any charging elements?

The TCR decision proposes no change to the calculation and levying of the HH locational component of the Demand TNUoS bill. The HH locational tariff will continue to be calculated using the outputs of the Transport model and charged to users based on their consumption over the three periods of highest transmission system demand or Triad windows.

The obligation to pay the Transmission Demand Residual (TDR) will no longer be based on consumption over Triad and will instead be levied on a pence/site basis through a daily charge.

Are DUoS charges only residual charges (or also forward looking)? I ask because I have heard that residual charges will be fixed banded, but I'm not sure about the future of DUoS time-of-use charging.

DUoS charges contain residual and forward looking elements. The residual DUoS charge will move to the same methodology as the TDR in April 2022. The locational DUoS methodology is being assessed by Ofgem through the Access and Forward Looking Charges SCR with a minded to decision expected in Summer 2020. There are both residual and locational elements of DUoS, but currently, for generators, there are only locational credits.

Are the slides going to be shared after this webinar?

Yes, the slides can be found on the NGESO website at the following link https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/removing-generator-residual-tnuos-charges

What is going to happen to the future of DUoS and Triad/TNUoS avoidance schemes (e.g. Behind the Meter batteries)?

The future of TNUoS and DUoS locational signals are being assessed by Ofgem through the Access & Forward Looking Charges SCR with a minded to position expected in Summer 2020.

The Ofgem decision letter states the opinion that as the TDR exists purely as a cost-recovery mechanism it should be unavoidable and not send any commercial signals that incentivise behavioural change. The obligation to pay the Transmission Demand Residual (TDR) will, therefore, no longer be based on consumption over Triad and will instead be levied on a pence/site basis through a daily charge. The changes to the charging methodology to account for this decision may affect the business cases of some Triad avoidance schemes.

How often will the TDR value be reviewed?

The total amount of TO revenue to be recovered through the TDR will be calculated every year as the end product of the annual tariff setting process run by the ESO.

You implied that there is already a floor of zero for demand charges. Where is that defined in the CUSC?

The clause that stipulates that demand tariffs should be floored at zero can be found in the CUSC at 14.14.5 part (iii) under the general principles for TNUoS Charging.

If the zonal tariffs are floored at zero will anything be done to preserve the locational price signal in these zones?

Currently, there is no prospect of a negative overall tariff as once the TDR has been added to the locational components the result is always positive. It is possible to see the effect of the negative locational tariffs in the north of the country as HH metered users in these regions have a lower tariff than counterparts in the south.

Consideration in the workgroup process will need to be given to whether a negative locational tariff should be applied or not as there will not be an immediate link the construction of the tariff between residual and locational payments.

What will the criteria be to vary from Term 18, signifying a single charge (TDR band) for Transmission connected demand? What will change that?

Term 18 of Ofgem's direction letter to the licensee responsible for the CUSC (NGESO) states that "there will be a single fixed TNUoS residual charge for transmission-connected consumers". This will certainly be the baseline assumption for workgroup discussions for the CUSC modification that will be raised to give effect to Ofgem's direction.

Throughout the CUSC modification process, the workgroup may assess the benefits and drawbacks of further segmentation of Transmission connected demand users. The Ofgem decision considered that up to 4 bands could be required to segment Transmission users but was mindful of balancing simplicity of the charging arrangements with the need to ensure that only similar users face the same charge.

Analysis will be undertaken during the code modification process to determine the most appropriate number of bands for transmission demand users taking into consideration the range of final demand values and their consequent

network impact. If it is found that one TDR for all Transmission demand users is not appropriate then it is likely that Transmission users will be segmented in the same way as users at lower voltages dividing the cohort into bands based on the 40th, 70th and 85th percentiles.

What does a "a user will be allocated to a band for a whole price control" mean? Will users be prevented from moving between bands?

The Ofgem decision letter states that the boundaries of the charging bands will be reviewed in order to implement the outcome of such review at the same time as the next transmission price control takes effect. It also states that at least 24 months of data will be required in order to put sites into their bands. As the banding is done on a percentile basis it would be prohibitively onerous to recalculate the percentile orders for all users in a voltage group and redefine the top and bottom of bands more frequently than this.

Therefore, the suggested process for all existing users is that at the start of a price control the band into which that user falls based on 24 months of historical data is the band in which that user will remain until the end of the next review period which will coincide with the start of a new price control.

When a new user connects and becomes eligible for TDR charges they will begin to pay the charges of the band they most closely fit into based on all available information.

Ofgem has directed an implementation date of April 2021. I thought you are required to give 15 months' notice of changes to charges?

Changes to the TNUoS charging methodology do not require a fixed notice period to be given to users. Changes to the DUoS charging methodology do, however, require a 15 month notice period and as such the implementation date for changes to the DUoS residual are scheduled for April 2022. This leaves sufficient time to give the required notice to industry after the relevant code modifications are implemented.

What will happen when a site changes over the 24 months used to calculate the data?

For LV non-MIC sites the 24 month period will be used to give an average profile for the usage of the site in question to determine where it sits in relation to its peers at the same voltage level. If the site changes usage during this time such that its final demand volume greatly increases or decreases, then this will affect its average and it may fall within a band which is no longer appropriate for its current usage. The effect on the total volume allocation, however, we expect to be minimal.

Domestic sites will not be banded and therefore major changes in the consumption volumes of a specific domestic site will have little impact when considered with all other sites in this bracket.

For banding by MIC (at LV -with MIC, HV and EHV), our expectation is that the most recent MIC will be used. This would ensure any fundamental changes to site configuration within the 24-month data period are captured correctly. The finer details of how site changes within the 24 month data inflow period will be captured in the methodology will be finalised during the industry code change process.

If these changes, which will clearly impact Energy Intensive Industry and Renewable Generators are too difficult or costly to implement can this change be abandoned?

We do not expect Ofgem to reverse their decision. They have consulted extensively throughout the TCR process and responded to some criticisms from Renewable Generator groups in their decision statement.

It is worth noting that until the charging methodologies within the CUSC and the DCUSA are changed there is no effect on users of the system. The modification process will run from the end of 2019 until some point in 2020. All those affected by the changes will be able to feed into this process. If you want to be involved please get in touch with the CUSC Code Administration team at cusc.team@nationalgrideso.com .

What are your views for BTM?

Behind the meter generation will be impacted by these charging changes. Ofgem has signalled for some time that they believe network residual charges should be unavoidable and do not wish to send cost signals through this route.

Will the final demand imports and imports for the purposes of providing services to the grid be charged differently?

Imports for the purposes of later export i.e. imports required for the start-up of an onsite generator or to charge an onsite battery will not be included in the calculation of final demand. If these imports are for the purposes for providing services to the grid this will be no different.

For demand side response services who are providing High Frequency response to the grid the increase in demand necessary to provide HF response will not be charged any differently to demand increases for unrelated purposes. However, it is worth noting that the intention is to charge sites a fixed charge per day for the TDR independently of how much they consumed on that day.

The HH and a new NHH locational tariff will continue to be charged based on consumption over Triad/general system peak. It is highly unlikely (but not impossible) that a site providing balancing services to the grid would be required to increase their demand over the Triad periods.

Does the ESO intend to maximise charges on generators? Ofgem's decision is to minimise the TGR.

Ofgem have directed the ESO to avoid a negative residual where possible whilst remaining compliant with 838/2010. This, therefore, means that the outcomes of CMP317 and CMP327 will ensure that the TGR is set to zero whilst remaining compliant with 838/2010 which will most likely maximise charges to generators.

How will you be able to do single site final demand accurately and setup a billing system in one year if the mods are still in progress?

We expect to complete the mods required to deliver Ofgem's direction on the TCR in March 2020. This will then give us a maximum of 8 months to complete the billing system and process changes required to produce TNUoS tariffs in November 2020.

This leaves a lot of work to do in a very short space of time and will be dependent on the completion of the open governance CUSC change process by March 2020.

How will the concept of final demand apply to a single site where a generator uses some of the total site demand to generate electricity?

Imports for the purposes of later export i.e. imports required for the start-up of an onsite generator or to charge an onsite battery will not be included in the calculation of final demand.

When will we see indicative tariffs from this?

We recognise that large scale changes to the TNUoS methodology can create commercial uncertainty for industry participants. We are hopeful that indicative tariffs will be shared as soon as possible. Some charging scenarios and impact modelling will be included in the Charging Future Forum on 18th December 2019 but it will not be possible to produce finalised indicative tariffs until the conclusion of the CUSC change processes when we will know definitively what the new charging methodology will look like.

With the increase in cross border interconnection, would it make sense to adopt the cap applied in most other EU countries like €0.50?

A shift to target €0.50/MWh would make it more difficult than it is today to achieve the Ofgem direction of setting the TNUoS Generator Residual to £0. The TCR decision letter does not imply that a €0.50/MWh cap is Ofgem's policy aim with respect to generator TNUoS liabilities.

When will tables for each region be available for large consumers to calculate their costs to compare with their existing charges?

We recognise that large scale changes to the TNUoS methodology can create commercial uncertainty for industry participants. We are hopeful that indicative tariffs will be shared as soon as possible. Some charging scenarios and impact modelling will be included in the Charging Future Forum on 18th December 2019 but it will not be possible to produce finalised indicative tariffs until the conclusion of the CUSC change processes when we will know definitively

what the new charging methodology will look like, and until the relevant changes in other codes have concluded, enabling Suppliers and/or DNOs to provide us with data for site numbers and final demand

Can you please give more explanation on how the negative charges for the London region will work? This seems counterintuitive.

The DUoS residual in London is negative; we cannot outline how this will work in practice as it is to be defined under the DCUSA. UK Power Networks as the DNO for that region may be able to provide further information.

What 'onshore' charges are expected to be excluded?

CMP317 is an ongoing CUSC modification which aims to determine which assets should be included in the calculation to determine compliance with the European regulation 838/2010 which sets a cap and collar for network charges levied on transmission generators of between €0-2.50/MWh.

More information on this modification proposal can be found on the NGESO website at https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/identification-and-exclusion-assets.

CMP317 will be run alongside CMP327 (the modification raised to give effect to the Ofgem direction to set the TGR to £0) and subject to Authority approval will be treated as urgent.

The solution raised by the proposer upon submitting the modification proposal to the CUSC panel was to exclude the charges for physical assets required for connection (PARC) from the calculation to determine compliance with 838/2010. The definition of PARC was set by the proposer to include all on- and offshore local circuit and substations, meaning that the charges relating to these assets would be excluded from consideration of compliance with the range.

Ongoing workgroup discussions will aim to refine this proposed solution or raise workgroup alternatives and then submit to the Authority for decision.

TGR assets will be recovered elsewhere? Can you explain this? I imagine it does not affect the total amount but how it is currently recovered. Which other charges will be changed?

The TNUoS Generator Residual (TGR) is currently negative and is used to keep generator TNUoS tariffs within the €0-2.50/MWh range dictated by European regulation 838/2010. The Ofgem direction to set the TGR to £0 does not, therefore, mean that costs that were formerly recovered through the TGR will need to be recovered from an alternative source.

The direction to set the residual to £0 does, however, interact with the ESO's ability to remain compliant with 838/2010. As a result of these interdependencies, the CUSC panel have agreed to combine CMP317 (a CUSC modification proposal looking at which assets are included in the calculation to determine compliance with the €0-2.50/MWh range) and CMP327 (the CUSC modification to give effect to the Ofgem decision to set the TGR to £0) together.

The outcomes of CMP317 and CMP327 will determine what generator TNUoS charges look like with the expectation that this change will be effective from the start of charging year April 2021.

We need to see indicative tariffs for TGR = £0/kW. When will these be out?

We recognise that large scale changes to the TNUoS methodology can create commercial uncertainty for industry participants. We are hopeful that indicative tariffs will be shared as soon as possible. Some charging scenarios and impact modelling will be included in the Charging Future Forum on 18th December 2019 but it will not be possible to produce finalised indicative tariffs until the conclusion of the CUSC change processes when we will know definitively what the new charging methodology will look like.

Embedded generation will be exposed to more charges, why is TxGen except of BSUoS?

No Embedded Generator is being charged as a result of the Targeted Charging Review conclusions. Embedded Generators with a capacity of <100MW will continue to receive the Embedded Export Tariff in TNUoS, paid either directly or through the Supplier for exports over triad. Transmission-Connected Generators will continue to pay TNUoS and BSUoS as they do now. Supplier volumes will be charged BSUoS on a gross basis, as they are for TNUoS, which may mean that any payments Suppliers choose currently to make to Embedded Generators in return for reducing their overall (net) BSUoS liability would cease. The TCR does not propose to charge Embedded Generators.

Under the Access & Forward-Looking Charges SCR, Ofgem are considering options around charging Embedded Generators some element of TNUoS. At present, however, there is no change to the specific charging arrangements for Embedded Generators <100MW.

How will BSUoS reform interact with CMP308?

The current work that has been undertaken on the CMP308 CUSC change proposal has been done on the assumption that BSUoS remained a net charge. The Ofgem TCR direction states that BSUoS must be charged based on gross volumes for suppliers from April 2021 to remove the incentive to contract with embedded generators to reduce chargeable volume.

Work undertaken through CMP308 will be considered by the second BSUoS task force which the ESO will be running as per Ofgem's direction in the new year. The second taskforce will identify who should pay BSUoS and how balancing services charges should be recovered.

Will TNUoS generation charges be targeting 2.50 or somewhere else in the range? If it's lower, how will this work in practice with no residual?

Ofgem have directed the ESO to avoid a negative residual where possible whilst remaining compliant with 838/2010. This, therefore, means that the outcomes of CMP317 and CMP327 will ensure that the TGR is set to zero whilst remaining compliant with 838/2010 which will most likely maximise charges to generators. In practice, we will have to aim for €2.50, as to aim for a lower number within the range would rely on a negative residual/other adjustment, which will only be permissible for compliance purposes. Aiming for anything under €2.50 is not required for compliance, other than potentially incorporating an error margin.

Do you know what the impact on BSUoS chargeable volume will be as a TWh value?

Some charging scenarios and impact modelling will be included in the Charging Future Forum on 18th December 2019. We will endeavour to consider this in that information.

Will the taskforce be assessing who should pay BSUoS? Hasn't a large part of this been done in CMP308?

The current work that has been undertaken on the CMP308 CUSC change proposal has been done on the assumption that BSUoS remained a net charge. The Ofgem TCR direction states that BSUoS must be charged based on gross volumes from April 2021 to remove the incentive for suppliers to contract with embedded generators to reduce their chargeable volume.

Work undertaken through CMP308 will be considered by the second BSUoS task force which the ESO will be running as per Ofgem's direction in the new year. The second taskforce will identify who should pay BSUoS and how balancing services charges should be recovered.

Redundancy – does it refer to sites with TWO connections or behind the meter generation?

Provisions for redundancy are referred to in Ofgem's TCR decision letter in point 9) of the "specific requirements of our decision" section. This point clearly states that redundancy is referring to a second "back up" route for export/import capacity which is not typically used in day to day operation of the site. Consumption volumes across both routes should be considered for the purposes of transmission charging calculations.. Provisions will need to be made in the solution for the soon-to-be raised TDR CUSC modification and changes to the DCUSA (the DNO equivalent of CUSC) to account for these distribution connections.

Will we see a BSUoS code change raised before Christmas?

We expect to raise a BSUoS CUSC modification proposal at the December CUSC Panel on 13th December.

Can you clarify whether the second BSUoS taskforce is effectively a mod workgroup or are they doing the development of the change before a mod is raised later?

The second taskforce will identify who should pay BSUoS and how balancing services charges should be recovered. Ofgem will receive the output of the taskforce in June 2020 and determine next steps.

Separately a BSUoS mod will be raised to give effect to Ofgem's direction to charge users BSUoS based on Gross volumes rather than Net volumes in December 2019 as per their TCR decisions.

Further CUSC changes may be required following the output of the second taskforce and Ofgem's direction on next steps in Autumn 2020.

If the bands are established in 2021 or 2022, would that change with the next price control?

Yes. The expectation is that the banding will be reviewed once per price control.

With BSUoS, will a site with demand and embedded generation have to pay both Demand BSUoS (now gross) and Generation BSUoS on the service they provide?

Embedded generators don't pay BSUoS. Any import volume would be deemed chargeable for the purposes of Demand BSUoS.

If the bands are established in 2021 or 2022 would that change with the next price control or will we wait a longer period implementation date and then skip the next price control?

The expectation is that the banding will be reviewed once per price control.

Will you be circulating the slides?

Yes, the slides can be found on the NGESO website at the following link https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/removing-generator-residual-tnuos-charges

The illustrative charges bands = how much can we trust this? how accurate are they?

The illustrative bands were created by Frontier Economics for Ofgem; we have been unable to replicate the bands as we do not have sufficient information (i.e. counts of sites or total contracted MIC) to be able to do so. We do not, at present know whether they are likely to be accurate, however as they are based on one region, with a series of assumptions made by Frontier, we would recommend that they are treated as illustrative rather than indicative.

If forward looking costs continues to be charged £/KW tariff this results in a negative charge in certain areas ? Correct ?

In principle, yes. However. The CUSC currently states that demand tariffs should be floored at £0 so as to avoid paying demand over triad. Nothing in the TCR decision would lift this floor and it is the ESO's view that pending the outcome of the Access & Forward-Looking Charges SCR, the floor should be retained.

Given the banding review is ongoing, when do you expect the full impact for industrial users electricity prices can be assessed, in particular with respect to embedded behind the meter supply?

Until the DNOs and Suppliers have been able to provide final demand and site counts, we are unable to publish any tariff forecasts for 2021 and beyond, reflecting the new methodology. We understand the level of uncertainty that this creates for all TNUoS-payers, but as the information required to set the bands and therefore the tariffs isn't held by the ESO, we are not currently able to asses the effect on tariffs. We are working with industry to obtain this information as soon as we can.

How does the extension of CMP318 be impacted by the TCR? Currently, elective HH settlement has TNUoS charged based upon net demand

Sites in Measurement Classes F and G (Domestic <100kW HH and Non-Domestic <100kW Whole Current HH) will continue to be charged as NHH, which means their volumes will be included in the LV No MIC category. Sites in Measurement Classes C and E (>100kW HH and Non-Domestic <100kW Current Transformer HH) will continue to be charged under the HH methodology and will be banded as such.

The BSUoS Task Force open letter notes that timescales could be as soon as 2021 in line with the embedded changes - what does this mean for 308 as these timescales are much longer?

CMP308 is based on retaining a net charging methodology for demand, and we know from the TCR decision that Ofgem expect BSUoS to be charged based on gross demand. The principles of CMP308 (who should pay BSUoS) will be picked up in the Task Force. The ESO considers that any change to the distribution of BSUoS costs (eg 100% to demand) should be implemented in a way that minimises market impacts and distributional effects – ie taking into account the duration of supplier fixed contracts.

Can you comment specifically on the TCR impact on non-commodity charges that previously could be avoided through behind the meter generation, which will no longer be achievable a savings under the TCR

There are many non-commodity charges – the TCR directly affects the residual elements of DUoS and TNUoS, and removes the embedded benefit for BSUoS. Under the TCR, sites with behind-the-meter generation will face the residual (cost-recovery) elements of Use of System Charges all year, and as they will no longer be charged volumetrically they will be largely unavoidable. Sites with behind-the-meter generation will likely have a lower MIC agreed with DNO, and a lower MWh import volume, which will affect the band in which they are placed.

Are the band categories based on grid import? Are the tables shared so far final or are the bands likely to change?

The bands are not set. Frontier have provided illustrative bands but we do not know whether they are likely to be accurate as they have been set based on a series of assumptions made by Frontier – we were not involved in their creation and we do not have the data they used to create them. We do not believe they are final.

if you can’t answer when data to populate tables how did ofgem carry out an impact analysis?

We were not involved in the approach taken by Ofgem and Frontier in their impact assessment.

Did you say that the NHH charge would continue to be based around 4PM-7PM consumption? Is that not a form of forward charge, as it still provides a time-based signal?

The non-residual part of NHH tariffs will be based on 4-7pm. Any residual amounts will be captured in the relevant banding.

If the Access & Forward Looking SCR concludes (in mid 2020) the "forward looking" element is much larger than the current methodology says, will this be taken in to account for 2021?

No. The SCR may reach its conclusions in mid-2020, however no changes will take effect until the CUSC modifications they require have been implemented. Ofgem have indicated that implementation would be 2023, which means the residual reform would take effect on April 2021 and the locational element changes would take effect from April 2023.

For sake of clarity: the final decision mentions banding based on "agreed capacity", is this referring to the grid import capacity if not can you define it ?

Some HH sites agree a Maximum Import Capacity with the DNO (sites in Measurement Classes C and E) under the terms of their connection agreement. This Maximum Import Capacity (kVA) is the agreed capacity being referenced.

banding and volume for banding purposes = grid conneciton or onsite +grid conneciton?

The bands will be set based on the contracted Maximum Import Capacity for the connection, or on the MWh volume if there is no Maximum Import Capacity.

DUOS charges for London region are negative?

Yes. UK Power Networks as the DNO for that region may be able to provide more information on how this will work in practice.

Ref 2021 implementation, Major UK businesses are preparing their bus' plans and budgets. They'll also need to change their accounting systems. Have Ofgem considered given complexity of changes?

Ofgem's impact assessment has been published – the ESO isn't able to confirm what specifically has been included in that assessment.

TGR scenarios for CFF presentation: please include change in transmission zones and lower range in RIIO-T2 allowed returns

It's not possible to provide this level of detail. We do not know how the zones will change and therefore what the wider tariffs would be, and Ofgem haven't yet made decisions under the TOs' price control. We aren't able to model all potential outcomes given the number of variables at present but will update this as soon as the relevant decisions are made.

With MIC or Agreed Supplied Capacity for multi-MPAN sites. How can a Single Site charge be assessed appropriately? Assume just based on the largest ASC kVA rather than the sum of all kVAs?

Whilst this will need to be covered in the DCUSA rather than CUSC (as it relates to how MPANs are related/associated), we believe that for sites who already have related/associated MPANs the rules will be similar to today's.

We are not all CUSC parties, in particular small innovative flex providers, can we be represented and take part of the Code Modes?

It is possible for you to apply to Ofgem for 'materially affected status' which gives you the right to participate in the code changes directly. Alternatively, your Supplier can attend in your stead, or you can attend as an observer (meaning you would not be able to raise alternative proposals or vote). Please get in touch with the Code Administrator Team to discuss your options: cusc.team@nationalgrideso.com