

Objectives / Impacts for 621

Reference Price Methodology 0621

Aim of the RPM / overall framework of charging.

To recover the Transmission Services Revenue from Capacity based charges.

Analysis and critique of the current methodology and potential alternatives have been conducted through the NTSCMF and UNCO621 workgroups. The results of this assessment were published in January 2017 (<https://www.gasgovernance.co.uk/ntscmf/subg1page>) and [the updated analysis presented](https://www.gasgovernance.co.uk/0621/200418) April 2018 (<https://www.gasgovernance.co.uk/0621/200418>). From January 2017 it was considered more relevant, in the context of the EU Tariff Code, measurement against relevant charging objectives and stakeholder objectives that the current LRM methodology is no longer suitable and not be continued under the Gas Charging Review (that became UNCO621). This continues to be the view and reflected in the analysis.

The conclusion from [this workgroup](#) is support for this approach to move away from LRM.

[A number of drivers have been considered for the reference price methodology. This includes moving from a forward looking investment focused model \(that does not deliver revenue recovery via capacity\) to one that is more a revenue recovery based approach based on usage/capacity reservations. Workgroup supported this move away from an incremental focused model as the network is not expanding. CWD still provides some geographical diversity in charges whereas postage stamp provides uniform charges across the network.](#)

[All the proposals, with the exception of UNCO621J, have adopted CWD as the basis to underpin the methodology.](#)

[UNCO621J adopts a postage stamp model to underpin the methodology.](#)

Moving away from LRM was supported by the workgroup. The critique of the LRM methodology highlighted [that even small changes to the inputs to the methodology can drive significant variations in the charges. These arose mainly from the boundary issues of supply merit order requirement in the LRM methodology that is not a feature of either CWD or PS. If adjusting the supply merit order and applying revenue adjustments, as highlighted in the analysis \[link\], then the resulting methodology is similar to a CWD approach, albeit more complicated. There is an expectation that CWD or PS will provide more stable and predictable charges than LRM to the extent that the inputs are stable.](#)

[Therefore, it was considered an alternative approach was more appropriate than attempting to adjust the LRM methodology.](#)

Legislative Compliance 0621

The Workgroup recognised and acknowledged that elements of the Proposal are driven by a need for the GB arrangements to comply with EU Regulation 2017/460. Principle areas of the proposed methodology subject to such compliance issues are:

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Deleted: Through the workgroups, taking into account views expressed on cost reflectivity in the workgroups and those mentioned in TAR NC, National Grid is proposing CWD as the replacement for LRM. When considering cost reflectivity it should be noted that this can be a subjective. Reflecting on the cost drivers and those mentioned in TAR NC as capacity AND distance, Postage stamp does not have both of these, and could be considered as not having capacity as a specific driver as it only considers in aggregates. Therefore CWD does have both of these cost drivers using capacity and distance to derive the reserve prices. CWD, through the workgroups is considered more cost reflective using these cost drivers.

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- the Reference Price Methodology (*Articles 6 to 8*);
- the categorisation of Transmission and Non-Transmission Services (*Article 4*);
- the transition to a capacity based charging regime (*Article 4(3)*); and
- application and extent of site and capacity product specific discounts (*Articles 9 and 16*).

The broad Workgroup consensus was that the Proposal is compliant with Regulation 2017/460 [however specific concerns expressed by one or more individual members of the Workgroup are recorded in the relevant section/s of this impact assessment].

[\[include Julie Cox table or link to it here???](#)

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Historical / Existing Contracts 0621

The workgroup had agreement around some National Grid interpretation of article 35 of Regulation 2017/460 that while entry capacity was relevant, exit capacity was not on account of exit capacity already being subject to a variable price. It was concluded that Existing Contracts therefore relates to entry capacity booked prior to 6/4/17 (which is the entry into force date of TAR). It was recognised that there is a disconnect between the entry into force date of TAR, and the implementation date of the related UNC modification proposal. National Grid therefore created the category of 'Interim Contracts' to cover entry capacity booked between these 2 dates. Together then Existing Contracts and Interim Contracts can be referred to as Historic Contracts. National Grid also stated its belief that Article 35 does not in general cover commodity charges, again on account this being a variable charge. This was more debate around this point, but broad consensus with National Grid's view.

The existing/historic contracts matter because they are treated in a particular way under some of the other processes. There was some WG debate around the treatment of Existing Contracts, including a paper produced by ENI which recognised the status and contribution of Existing Contracts, and argued for special consideration under the new regime. National Grid confirmed in its modification that Existing Contracts do not feed into the CWD model (as part of the capacity input) for producing prices, and the updated CWD price will then also not apply to existing contracts – rather the existing fixed price of the booking will continue to prevail. Additionally a rule was added in around Reconciliation, so that the historic entitlement at Storage sites will not attract a capacity reconciliation charge. The justification for this, is that uniquely then Storage sites have a 0 commodity charge at present (and it is not considered a variable charge under the current methodology), therefore the reconciliation charge will continue to be 0 for this capacity. It was noted that this 'exempt' capacity at storage sites will naturally fall away to zero with time.

[other modifications have included further special rules for the treatment of Existing/Historic contracts with regards to Reconciliation]

[Use of Transition period \(relevant to all proposals except UNC0621B\)](#)

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Transition period for UNC621, A, C, D, F, H, J is between October 2019 and September 2021, inclusive. UNC0621E is the same for Entry with Exit between October 2019 and September 2022 for Exit. UNC0621B does not have a transition period.

Ideally the methodology proposed from 2019 for an FCC would produce reserve prices that will recover most of the transmission services revenue. The main benefit identified in having a transition period is to allow time to see behavioural responses to fundamental changes to the charging framework and to develop a more informed capacity forecast.

Moving from low capacity charges, high commodity charges to a framework with high capacity charges and low, or zero commodity charges is a fundamental shift in the charging methodology.

Moving to a completely new methodology from that currently in place resulting in prices that can be materially different and a transition period allows market participants time to adapt.

Scope and depth of changes is significant and the impact on Users of the NTS, a transition period would provide time to understand the impacts and to provide data to better inform a forecast;

Buying behaviours will change and, with the removal of zero prices, this is unpredictable.

[Refer to some text for 621B which does not have a transition period]

[refer to some text for 621E which has a longer transition for Exit]

Relevant Objectives for the Transition Period

Relevant objective (b). Competition is based on having stable and predictable charges which can only be generated if National Grid has reliable data on which to build a capacity forecast. This data is expected to be generated during the transition period as behavioural responses emerge. E.g. reaction to the removal of zero reserve prices.

Inputs to RPM

The CWD methodology requires three main inputs:

1. FCC
2. A target revenue
3. Distances on the network

[add in simple description of CWD method applied]

Forecasted Contracted Capacity

Linked to the FCC paper that brought the development of an FCC to a point:

https://www.gasgovernance.co.uk/sites/default/files/ggf/Forecasting%20Contracted%20Capacity%200v0%205_0.pdf

The FCC is a required value per Entry and Exit point under CWD. For PS only an aggregate value for Entry and Exit is required. The FCC is required in order to calculate capacity reserve prices.

Transition

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The capacity over which the target revenue is to be recovered (i.e. net of any capacity that has its price known and that will

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<#>A target revenue (linked to the allowed revenue) to be targeted over the capacity (1) (i.e. revenue net of any revenue from capacity which will not change the liability). As this revenue is ultimately linked to the allowed revenue determined under National Grid's price control (RIIO), this will vary in line with the Licence determinations. ¶
Distances in order to derive the weighted average distances. As these are based on the average shortest paths on the network, these are unlikely to change materially over time.

Deleted: If booking patterns were not expected to change then there could be less need for a transition period, during which there are two main goals: ¶
<#>To learn from capacity booking changes that are seen as the new methodology is implemented and time for it to bed in; ¶
<#>To provide a predictable path towards full capacity charging from the end of the transition (2021) and therefore time for those booking capacity to adapt to the changes not just to the firm capacity prices but for interruptible entry and off peak exit too. ¶

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All the modifications that have a transition period propose Obligated capacity as the FCC;

- The values are Published/publicly available and understood by stakeholders;
- The values are stable and the process for change is known;
- Objectivity of values is less of a concern as they are fixed as per the Licence.

Relevant Objectives on competition with more stable charges, more predictable outcomes. This also applies to 621B.

The driver behind any under recovery will be the relative difference between the actual bookings and the forecast contracted capacity. Due to obligated levels being generally higher than expected capacity bookings, this will drive an under recovery in the transition period, to be recovered through Transmission Services revenue recovery charges.

To reduce the Transmission Services revenue recovery charges it may be necessary to set the FCC closer to actual bookings which is the purpose of the enduring approach.

Enduring

For the enduring approach the proposals, with the exception of UNCO621B, are to use a National Grid forecast for the FCC. This forecast is to be produced nearer the time. An obligation to produce this will be included into the legal text along with the required explanation and rationale behind the forecast.

Some workgroup members have concerns on the ability of National Grid to produce an accurate Entry and Exit point specific capacity forecast and the potential to compromise the stability / predictability of revenue recovery charges (within year changes) and / or K values (year + 2 under RIIO). Some workgroup members expressed concerns on the potentially high number of changes to revenue recovery charges and if this would require a Licence change.

Workgroup members do not want revenue recovery charges changing within a gas year any more frequently than under the current charging arrangements (i.e. once per year).

FCC & Historical Contracts

The point specific capacity input to the CWD capacity calculations are net of Historical Contract capacity volumes. The FCC is therefore the non-Historical capacity bookings in the enduring and obligated net of historical capacity bookings in the transition. This is the same across all the proposals using CWD except UNCO621J which uses PS where aggregate capacity net of aggregate historical capacity is used.

This is to follow two principles:

- Capacity charges should be set to recover the target revenue from a target capacity. For any capacity for which the revenue is known (i.e. Historical) the revenue and capacity should be netted off. This retains the focus of the RPM that capacity charges are set to recover the

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Setting reserve prices; and ¶

The application of revenue recovery charges should the floating reserve prices not achieve the anticipated target revenue. ¶

In response to the discussions on FCC there were a number of options however the most appropriate, listening to feedback from industry was the use of obligated as per the Licence for a number of reasons

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Deleted: The workgroup recognised that obligated may not be the most appropriate method, when considering the potential impacts on revenue recovery options, however any methodology to determine a set of values without doing a bespoke forecast would be challenging. ¶ National Grid recognises this as a downside to using obligated for capacity price setting, and therefore is only proposing this in the transition period. The workgroup recognise this trade-off as regards to the use of obligated and some parties will see this as more or less of an issue in its application. ¶

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required revenue. Exit does not have any Historical Contracts. If there were any they would be treated as Entry ones are.

- Historical Contracts are those that have procured the capacity under the clear price auction (as defined in the UNC) under the current regime where it has not been reasonable to say that these prices would change.

Not all in the Workgroup agree with this approach. As it stands all the proposals follow the same approach. In respect of Entry Reserve prices, this approach results in relatively higher capacity charges compared with an alternative approach, where capacity inputs would not be reduced by Historical Contracts. This alternative approach would increase the Transmission Revenue recovery charges.

Some in the Workgroup expressed concerns that, depending on the levels of interim contracts, this could mean that capacity booked particularly in the enduring (e.g. new infrastructure projects), could face higher reserve prices.

Relevant Objectives (d): Competition.

For competition this approach preserves the contractual arrangements under the UNC for the rules in place prior to any changes as a result of these modifications.

Against competition this approach could result in users paying very different prices for the same product depending on when they procured it. This is not a new situation however the potential price difference under a new charging methodology could be much higher as it would be based on revenue allocation in the future.

Multipliers 0621

The Workgroup recognised that the proposal to include provision for capacity product specific multipliers (applied to the Reference Price to determine Reserve Prices) was proposed in order to comply with Article 13 of Regulation 2017/460.

National Grid stated that it has proposed to apply multipliers of one (1.0) for all capacity products on the basis that it had not identified a need to incentivise procurement of one capacity product over another and therefore this aspect of the pricing methodology would not influence Users' capacity procurement strategy. The Workgroup supported the proposed multipliers and noted that they were within the range permitted by Regulation 2017/460 Article 13(1).

[Earlier versions of the Proposal advocated that the post-year 1 multiplier values were directly subject to, and therefore potentially revised, as a consequence an annual consultation process managed by National Grid. As a consequence of concerns expressed by some members of the Workgroup, National Grid revised its Proposal such that the Multiplier value of 1.0 is enduring to the extent that it may be subject to subsequent Modification made pursuant to the UNC Modification Rules. Workgroup members support the revised (latter) approach.]

Interruptible (Discounts) 0621

The Workgroup explored the impacts on pricing stability of historical zero priced interruptible capacity products. It also considered the requirements contained in Regulation 2017/460 (Article 16)

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in relation to the extent of the future discount which can be applied to determine Reserve Prices for Interruptible Capacity. The discount is a product of the predicted probability of interruption and the economic value, of the interruptible capacity product, can be taken into consideration. National Grid presented analysis (covering the previous ten years) to the workgroup, to support the basis for the proposed discounts and although the probability was found to be very low it was agreed that it was not zero. Workgroup members therefore understood the proposed level of discount.

National Grid recognised the views of some Workgroup participants that attractiveness of the Interruptible capacity product is dependent upon it having a material discount to the equivalent Firm product. On this basis, National Grid put forward a banding approach such that the interruptible discount derived from the calculation prescribed by Regulation 201/460 Article 16 was rounded up to the nearest 10%. This recognises the “economic value” aspect of Article 16.

Earlier versions of the Proposal advocated that the post-year 1 interruptible discount were directly subject to, and therefore potentially revised, by an annual consultation process managed by National Grid. In response to reservations about this approach expressed by the workgroup, National Grid revised its Proposal such that the interruptible discount of 10% (at Entry Points and at Exit Points) is proposed to be enduring to the extent that it may be subject to subsequent Modification Proposal.

Specific Capacity Discounts:

Storage

The Workgroup recognised that the proposal to include provision for application of a 50% discount to the Reserve Price at Storage Connection Points was proposed in order to comply with Article 9 of Regulation 2017/460.

National Grid stated that it has proposed the minimum level of discount prescribed by Article 9(1) in order to avoid double charging and to deliver compliance with the Regulation. This level of discount was supported by [some members] of the Workgroup however [other members] supported a higher level of discount, principally based on a valuation of Storage Connection Point’s contribution to overall supply security. This higher discount level has been incorporated into a number of Alternative Proposals.

[The following provided by Nick Wye/Storengy:](#)

0621A Justification for 86% capacity charge discount

[*The 86% discount was derived in accordance with the methodology set out in the Waters Wye Associates supporting document to Mod 0621A. The document can be found here.*](#)

[*In summary, the proposer contends that the minimum discount of 50% to capacity-based transmission charges levied at storage system points in the EU Tariff Code is inadequate and does not take into account the general contribution made by storage to system flexibility and security of supply. The full benefits of storage to the NTS and its Users were detailed in two papers submitted by Storengy and GSOG to the NTSCMF in July 2017 and can be accessed here. The WWA paper*](#)

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acknowledges that the benefits are broad, but difficult to quantify, however, estimates are provided for a number of the individual benefits identified.

The proposer believes that the aggregated benefits should provide for a discount at, or very close to 100%, noting that based on Storenq's calculations that a 100% would result in only £8m of additional charges being levied on non-storage users.

In order, to derive a level of discount more aligned with the wider benefits generated by storage, the WWA document developed a methodology based on the principle that storage is embedded in the system, close to demand, akin to the justification for the application of the "shorthaul" tariff at NTS Exit Points located close to NTS Entry Points.

Using version 1.3 of the CWD model, WWA calculated that, on average, capacity charges are 36% higher when delivering gas to neighbouring exit points, via storage, than they would be if the gas was delivered directly from the non-storage NTS Entry Points to the same NTS Exit Points. On this basis, Mod 621A proposes that the 50% discount set out in Mod 621 is insufficient and that the total storage related capacity discount should equate to 86%.

Further, based on the GTCR Policy Position set out by Ofgem in Nov 2015, the Proposer believes that NTS capacity bookings at storage facilities should not attract any capacity based revenue reconciliation charges from 2021. The imposition of any such charge would result in double charging for each unit of gas delivered to, and from storage facilities

LNG

The Workgroup recognised the proposal to include provision for application of discount to the Reserve Price at Storage Connection Points in order to comply with Article 9 of Regulation 2017/460. National Grid outlined that it has proposed a 0% discount, effectively as a placeholder for compliance purposes, as unlike the case of Storage Connection Points there is no minimum level of discount prescribed in the Regulation.

Workgroup members supported the proposed level of discount.

IPs

No discount is proposed under 0621 for any Interconnection Points.

The following provided by Pav Dheshi IUK:

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Why the need for change

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Interconnector UK's proposes in its Modification 0621F that capacity discounts equal to those that apply to GB storage, are also applied to physically bi-directional interconnection points (IPs) – to the extent that they provide a comparable seasonal service through entry bookings which are equal to exit bookings within a Gas Year. With the closure of the Rough storage site it is timely to address the market distortion caused by double charging - whether for access to continental storage through physically bi-directional IPs, or for access to GB storage points. Providing for equal charging treatment will ensure a level playing field and more effective competition in the provision of seasonal flexibility to GB consumers.

In summary the key reasons to make the changes in Modification 0621F are:

a) Level playing field: To avoid double charging of bi-directional IP flows, and thereby to remove a market distortion. This reflects the fact that the interconnectors, working in partnership with continental storage, provide the same seasonal flexibility benefits to the GB market as GB Storage. Double charging of bi-directional flows versus bi-directional flows at storage points is a competitive distortion.

b) System benefits: To reflect that the reasons why storage assets merit a discount apply equally to physically bi-directional interconnectors, including their contribution to security of supply and their contribution to system flexibility.

c) Practical benefits: given the closure of Rough, the GB national system has a very low level of seasonal storage capacity, compared to other large gas demand countries in Europe. This raises a number of challenges and risks for GB consumers. It is an opportune time, therefore, to remove market distortions which penalise GB shippers and consumers accessing Continental Storage assets through the bi-directional interconnectors and benefiting from non-discriminatory National Grid charges. The change is not only fully justified and necessary to remove a competitive distortion, it could also be a matter of real practical benefit to the GB system and GB consumers in the next period of the market's evolution.

The solution and how it has sought to address the feedback of stakeholders

Specific discounts were discussed by the NTSCMF in the summer of 2017. Interconnector UK submitted a detailed paper¹ in August 2017 outlining the necessity for equal charging treatment for bi-directional IPs as part of that discussion. A number of shipper Workgroup participants supported a discount at the bi-directional IPs particularly noting the market integration benefits. Some other Workgroup participants were against such a proposal fearing that additional discounts for bi-directional IPs would mean additional charges for their points.

Some Workgroup participants, whilst sympathetic, noted that the interconnectors provide arbitrage as well as seasonal flexibility and argued that, unlike Storage, it could not always be guaranteed that

¹ <https://www.gasgovernance.co.uk/sites/default/files/ggf/book/2017-08/Bacton%20IP%20capacity%20discount%20paper%20IUK%20v2.0.pdf>

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interconnector flows would be entering and exiting the NTS (the double charging argument). The solution put forward in Modification 0621F has sought to mitigate this concern.

The Modification 0621F enduring solution applies the same discount as is applied to storage sites also to physically bi-directional IPs. However this is only for the proportion of anticipated entry bookings at the physically bi-directional IPs which, over the same year, equals the anticipated exit bookings at the IP. Any additional entry/or exit bookings would receive no discount and thus would be treated in the same manner as any other entry or exit point. By combining these two discount levels in proportion to the anticipated bookings to determine a weighted capacity reserve price, it ensures an enduring solution that can adapt to, and reflects in an appropriate way, future variations in how the interconnectors may be used. If we continue to see seasonal flexibility provided via the physically bi-directional IPs a proportionate discount will be accordingly applied. If, however, we see the physically bi-directional IPs becoming predominately importing or exporting, then little or no discount would be applied through the solution.

Given obligated technical capacity will be used for forecasting bookings in the interim period (October 2019 until September 2021), it is however necessary to apply the same discount as applied to storage for all this capacity for this short period.

Impact and how the proposal 0621F furthers the relevant objectives

Using historical flows as a proxy for the enduring solution, Interconnector UK estimated that applying a 50% discount to entry =exit flows amounted to around a 2.1% additional charge to recover around £12m at other NTS points².

For the interim period, Interconnector UK estimated, based on the National Grid CWD³, the amount of money to be recovered by the redistribution of NG charges to other entry/exit points to meet any discount at the physically bi-directional IPs (Bacton) would be around £16m assuming a 50% discount at the Bacton IP (as well as for storage). This would amount to an additional 2.7% increase in charges to these other points.

However, whilst there would need to be a redistribution of NG's charges to other entry/exit points, this is happening anyway as part of the NTS Charging Review. It is important to note that NG's overall revenues would be unchanged following this redistribution. There would therefore be no additional net burden on GB consumers. Indeed, any additional cost that could arise from having to subsidise new GB seasonal storage would be avoided and by facilitating effective competition at the Bacton IP.

² Interconnector UK used the 2014/15 gas year as an illustration assuming profiled capacity bookings. In this year, there were 42TWh of GB exports and 31TWh of GB imports through the Bacton IP with a total NTS transmission volume of 750TWh (Energy Trends monthly data shown in Figure 1). Applying a discount of 50% to the Bacton net IP total of 62TWh compared to total entry + exit of $2 * 750TWh = 1500TWh$ would mean 2.1% of TSO revenue would be redistributed and recovered from other points on the network ($62/1500 * 50\%$). A 50% discount on the gross Bacton IP flows under this illustration for an option (a) approach would mean a 2.4% increase in charges at other points ($73/1500 * 50\% = 2.4\%$ impact).

³ Interconnector UK analysis based on NG Transmission Services CWD Model for the 2018/19 gas year. Interconnector UK has based the revenue estimate on the obligated capacity bookings but have assumed that, as the Bacton IP is bi-directional the full obligated capacity will be booked in one or other direction, but not both at the same time.

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GB can continue to benefit from the wider societal benefits that the interconnectors provide. It should also be noted that by 2021, National Grid will be in a new price control period and its allowed revenue may be less than it is now. By the time of the enduring solution therefore, if National Grid's allowed revenue is lower, the re-distribution of charges will not increase as much as the estimates above and indeed it is possible there would be no additional increase in charges at other points.

>[end of 0621F section – still need workgroup response to this section above

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Periodic process to determine Parameters and information publication 0621

Whilst in earlier versions of the modification, National Grid has not proposed a periodic consultation process for Multipliers, Interruptible pricing, LNG discounts or Storage Discounts.

There will be an initial consultation that is for the proposals to be implemented. Thereafter any changes to these will be subject to the UNC change process.

Should it be determined at a later date that additional UNC processes are required in order to consider updates beyond 2019, i.e. for the charging year 2020/21 then UNC changes would be proposed once known.

Draft wording from JO:

National Grid proposes in Modification 0621 to utilise a so-called light-touch consultation process to determine the applicable Multipliers, Interruptible and Off peak Capacity discounts and Specific Capacity Discount for LNG which will apply to the period beyond 01 October 2020. Ofgem will have a veto option. The process is described in Section 3.30 of Section 3.

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A small number of Workgroup participants deemed this process made it too easy for National Grid to change the values and believed the transparency offered by the process as described was insufficient. One of these participants therefore included in their own Alternative Modification (e.g. 0621B) the requirement for such values to be published in Code which would therefore require a UNC Modification to change the values. Their reasoning was that the UNC Modification process is a known and accepted route likely to result in the enabling of a thought-through and transparent change.

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Most Workgroup participants agreed with National Grid that the light-touch consultation process taking place outside of Code was sufficient, given the likely materiality of any change and was therefore a pragmatic solution.

The following provided by Jeff Chandler SSE 0621E:

SSE proposes in Modification 0621E to place the values for the applicable Multipliers, Interruptible and Off peak Capacity discounts and Specific Capacity Discount for LNG in Code.

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Most Workgroup participants deemed this unnecessary and instead agreed with National Grid that the light-touch consultation process described in Modification

0621, which would take place outside of Code was sufficient, given the likely materiality of any change and was therefore a pragmatic solution.

A small number of Workgroup participants agreed that National Grid's proposed light touch consultation process made it too easy for National Grid to change the values and believed the transparency offered by the process as described by National Grid in its Modification was insufficient. They agreed with SSE that such values should be published in Code which would therefore require a UNC Modification to change the values. Their reasoning was that the UNC Modification process is a known and accepted route likely to result in the enabling of a thought-through and transparent change. >

Revenue Recovery Charges:

Revenue Recovery Charges are required in order to manage the collection of National Grids allowed revenue within year.

For any anticipated revenue shortfall from capacity charges (or any other dedicated charges) the revenue recovery charges are required and typically adjusted within year with the aim that there is no or little under or over recovery by the end of the year. Changes to these recovery charges are only on an ex-ante basis with the exception of the Entry Rebate.

Transition

Under all proposals the Transmission Services Revenue Recovery charge is commodity based at Non-IPs. Due to the uncertainty on the capacity forecast in the transition period as this new methodology comes into place, it was considered helpful to not place too many burdens on the capacity forecast as the risk of under or over recovery could be more significant without gaining more certainty on the capacity values expected. This would have the potential to add more risks on revenue recovery in the event the forecast is incorrect and capacity bookings are expected to change from 2019.

[add in sensitivity analysis on FCC % variations to demonstrate the effects].

[link to use of Transition period – in this doc]

Given it is an established method and understood and considered to be effective in managing revenue recovery, the use of a flow based commodity Transmission Services charge is to be applied at Non Interconnection Points. This is similar to the TO Commodity charges in place currently. This will not be applied to any storage flows (except own use gas).

At Interconnection Points it is not possible to levy a commodity charge for the purposes of revenue recovery for Transmission Services. However the prospect of not levying a revenue recovery charge is material and would place additional revenue recovery on non interconnection points. National Grid proposes a capacity charge in the interim period for non-interconnection points that will be applied to all capacity except any storage

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Enduring

Revenue Recovery charges should be the exception rather than the norm for enduring. It is necessary to have these in order to manage revenue recovery taking note that the capacity reserve prices can only be changed once per year.

All capacity will pay the top up charge in the enduring regime, with the exception of historical storage contracts.

The top up charge will be there to manage the difference between the FCC and the anticipated bookings. Any anticipated under recovery driven by any capacity discounts (e.g. storage, interruptible) will be managed by an ex ante adjustment in the RPM to adjust the reserve prices.

As a result it is expected that the Transmission Services Revenue Recovery charges should be minimal and over the whole capacity demand base (except historical storage) it will be a small charge.

NTS Optional Charge

All proposals except UNC0621D propose an NTS optional charge that is to encourage use of the NTS and therefore avoid inefficient bypass. Through the workgroups the majority support the inclusion on a charge to take into account the potential bypass of the NTS and therefore incentivise use of the NTS rather than build additional pipelines, thereby helping avoid inefficient bypass.

UNC0621B and UNC0621C propose a methodology for the NTS Optional charge that is enduring and does not have a defined end for the methodology proposed. All other modifications (except UNC0621D) propose NTS Optional Charge arrangements that will end at the end of the transition period prescribed in the respective modifications.

The options in the proposals:

1. Same formula structure as today, costs indexed by RPI each year, exemption from Transmission and Non Transmission revenue recovery charges for eligible volumes, distance cap of 60km. UNC0621B. Under this proposal the product does not "time-out" under the proposals.
2. Same formula structure as today, costs indexed by RPI each year, exemption or discounts to Transmission and Non Transmission revenue recovery charges for eligible volumes, distance cap of 60km. End date of product at the end of the transition period. UNC0621, A, E, F, H, J, K)
3. Discounted Transmission Services Capacity charge as the result of the NTS Optional Charge arrangements (UNC0621C). Transmission Services Revenue recovery charges payable in the transition on eligible quantities. In the enduring exemption from Transmission Services and Non Transmission Services Revenue recovery charges for eligible quantities.
4. No NTS Optional Charge (UNC0621D).

Updating costs for RPI

The cost inputs to the NTS Optional charge are based on historical values from 1998. It is proposed these are indexed to 2019 and for the first year and then by RPI into each subsequent year where

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[these are used in the NTS Optional Charge proposals \(UNC0621,A,B,E,F,H,J,K\). As there is a limited cost base to update costs with confidence, the use of RPI was used as it is a publicly available value.](#)

[Use of a distance cap \(link to the 621 presentation on distance cap that profiled the range of distances\).](#)

[Several of the modifications propose the use of a distance cap of 60km. No other distances are being proposed for the distance cap. The use of the distance cap is to keep the product “short” in nature without having known routes for NTS Optional charging just missing out \(e.g. if there was a utilised route currently of 55 and 57km a cap of 56 would mean the 57 just misses out – a scenario proposals are looking to avoid\). The range of routes showed \[link\] that there is a plateau beyond 60km and was a reasonable limit to adopt.](#)

[Some have expressed this distance cap should be higher, and views on the logic behind the 60km value not being linked to investment costs, although no proposals put forward a distance cap different to 60km. The 60km value does not represent an analysis of what is an efficient or viable investment to bypass the NTS. It is trying to make the charging arrangements overall fairer and to reduce the amount not paid by NTS Optional Charge users and borne by Non NTS Optional Charge users. In the development of the changes to the NTS Optional Charge, a review of costs was considered however simply adjusting \(increasing\) the costs did not address the issue whereby high commodity incentivises use of NTS Optional charge and this in turn increases the commodity which again incentivises use of the NTS Optional Charge. The use of a distance cap does limit the access to the NTS Optional charge to what could be considered a more reasonable distance. Originally it was not envisaged it would be taken over the large distances it is currently.](#)

[Enduring arrangements](#)

[A review of the whole NTS Optional charging arrangements was considered beneficial if there was sufficient time. Rather than continue the current arrangements, and consider how it could work in a mostly capacity based regime, a more comprehensive review was preferred by some. For those modifications that do not have an NTS Optional Charge beyond the transition period, it is accepted that a UNC review proposal will be proposed to look at the future of the NTS Optional Charge to be effective from the end of the transition period. This will be a separate UNC change outside of UNC0621. Whilst this is expected to be raised in 2018, some concerns have been expressed in the workgroup where, under proposals that have no NTS Optional charge beyond the end of the transition period, that there is no certainty of an NTS Optional Charge in the respective UNC0621 modifications. The conclusion of any separate modification on the review of the NTS Optional Charge would only deliver a new arrangement if implemented. Without such a change to the UNC the NTS Optional charge ends at the end of the Transition phase.](#)

[UNC0621B and UNC0621C propose to have enduring arrangements for the NTS Optional Charge. UNC0621B proposes one approach from 2019 and this will continue for all years to follow. UNC0621 proposes an approach that will have one treatment in the transition and another in the enduring.](#)

[UNC0621D proposes that the current NTS Optional Charge will end on implementation of this proposal.](#)

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[In all proposals where there is an NTS Optional charge, the current NTS Optional Commodity charge will end on implementation to be replaced by the NTS Optional Charge and will therefore have to reapply/re-nominate.](#)

Non-Transmission Services Charges

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National Grid proposes that Non Transmission Services Revenue is recovered through a number of charges. These are:

- (i) St Fergus Compression Charge;
- (ii) NTS Meter Maintenance Charges;
- (iii) DN Pensions Deficit Charges;
- (iv) Shared Supply Meter Point Administration Charge;
- (v) Interconnection Point Allocation Charge;
- (vi) General Non-Transmission Services Charges.

The Calculation and application of all the above charges are to be the same as under the current methodology. The General Non Transmission Services Charges (Entry and Exit) are to be calculated in the same manner as the current SO Commodity Charges in that the other charges are forecasted then deducted from the target Non Transmission Services Revenue to derive the amount to be recovered through the General Non Transmission Services Charges (GNTSC).

National Grid proposes that Non-Transmission Services Revenue is recovered via a similar charge to the System Operator (SO) charges and two additional charges considered as contributing to Transmission Owner (TO) revenue, these being the Distribution Network (DN) Pensions Deficit Charge and NTS Meter Maintenance Charge. These have been included as Non-Transmission Services charges to ensure compliance with Regulation 2017/460 Article 4.

In addition to the specific charges for individual Non-Transmission Services, National Grid has proposed that the residual Non-Transmission Services Revenue is recovered via a flow based 'General Non-Transmission Services Charge' similar in construct to the existing SO commodity charges.

Given the limited change in approach between the current SO charging methodology and the proposed Non-Transmission Services charging principles, Workgroup members supported the proposals including the exemption from the General Non Transmission charges for eligible flows under the NTS Optional Charge.

K Principles [and adjusting revenues in subsequent years](#)

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K is the under or over recovery from a previous revenue or formula year (i.e. April to March) that is added to or subtracted from the allowed revenue for the year in which charges are being set. Under the RII0-T1 price control there is a two year lag, i.e. if K was an under recovery in the formula year 18/19 it would be added to the allowed revenue for the formula year 2020/21. If K was an over recovery it would reduce the allowed revenue. The recovery of any value under 'K' will therefore be

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added or subtracted to the part of the revenue to be recovered in the relevant year. K will continue to be split between Entry and Exit for Transmission Services, like it is in the current Transmission charges. Therefore an over recovery on Exit will reduce Exit charges in a subsequent year but not impact Entry. Likewise Entry will not influence Exit in the same manner.

Given this is the same approach comparing Transmission under the current regime to Transmission Services and also SO to Non Transmission, Workgroup members supported the proposals as it also reflected comments and feedback through the development of the proposals that Entry K values should only influence Entry charges and Exit K values should only influence Exit charges.

The enduring aim of the methodology proposed by all modifications with the exception of UNCO621B is to recover the majority of Transmission Services Revenue through capacity charges. There is an aspiration to keep the Transmission Services revenue recovery charges as low as possible.

- With the overall changes to the charging framework the industry feedback was to allow aspects of the methodology to bed in for a period;
- Ultimately a move to 100% capacity requires a forecast or methodology to produce a forecast of capacity bookings. This would benefit from having data on behavioural changes to capacity bookings, especially with the removal of zero priced capacity and changes to interruptible pricing. National Grid has proposed a two year period for the transition whereby there is a fixed approach for setting the charges (i.e. obligated capacity), then the transition to an enduring approach that will use a forecast of capacity and will, in addition to developing a strawman and method for creating a forecast, it should also benefit from taking into account the capacity bookings up to that point and the behavioural changes from the new methodology.
- A transition with a specified end point provides certainty of when the changes take effect. Given the aspirations of National Grid's proposal, in line with the EU Tariffs Code to achieve a majority of Transmission revenue via capacity, this provides a short and predictable path to deliver this objective.

SoS and NBP impacts 0621

Workgroup raised some concerns on this but one for the responses / IA.

Impact on security of supply and the National Balancing Point (NBP) price and any potential unintended consequences.

Several Workgroup participants requested analysis relating to the impact of Modifications 0621/A/B/C/D/E/F/G/H/J on security of supply. Several Workgroup participants felt that aspects of the changes proposed by National Grid in its Modification 0621 were likely to have effects or consequences which could contribute to an improvement in the security of supply such as

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Deleted: Use of Transition period (relevant to all proposals except UNCO621B) ¶

Transition period for UNCO621, A, C, D, F, H, J is between October 2019 and September 2021, inclusive. UNCO621E is the same for Entry with Exit between October 2019 and September 2022 for Exit. UNCO621B does not have a transition period. ¶

Ideally the methodology proposed from 2019 for an FCC would produce reserve prices that will recover most of the transmission services revenue. ¶ would do this from 2019 however recognising that (The main rebenefit identified in having a transition period have is to a been a number of factors raised and considered in the development of the modification, National Grid believes there is merit in having a transition period) ¶ low time to see behavioural responses to fundamental changes to the charging framework and to develop a more informed capacity forecast. ¶

Moving from low capacity charges, high commodity charges to a framework with high capacity charges and low, or zero commodity charges is a fundamental shift in the charging methodology. ¶

Moving to a completely new methodology from that currently in place resulting in prices that can be materially different and a transition period allows market participants time to adapt. ¶

Scope and depth of changes is significant and the impact on Users of the NTS, a transition period would provide time to understand the impacts and to provide data to better inform a forecast; ¶

Buying behaviours will change and, with the removal of zero prices, this is unpredictable. ¶

[Refer to some text for B which does not have a transition period] ¶

Relevant Objectives for the Transition Period ¶

Relevant objective (b). Competition is based on having stable and predictable charges which can only be generated if National Grid has reliable data on which to build a capacity forecast. This data is expected to be generated during the transition period as behavioural responses emerge. E.g. reaction to the removal of zero reserve prices. ¶

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Others proposed consequences of the proposed changes which were likely to have a detrimental effect on security of supply were suggested, such as increasing charges for onshore storage facilities which may lead to economic decisions to close such facilities. Other consequences were proposed with regard to charges at entry points, in particular St Fergus, where potential charge increases may lead to economic decisions which could affect the viability of the facilities at the entry point, with concomitant effects on those North Sea fields supplying gas to the GB market through such facilities.

Changes to charges at Interconnection Points could also clearly affect the NBP with more liquidity provided where flow to the GB market was favourable compared with other destinations and vice versa.

The Workgroup as whole recognised that any quantified analysis of this nature would not be provided by National Grid and therefore requested that the Regulator to assess this factor in its Regulatory Impact Assessment.

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Unintended (or simply) consequences (Draft)

Outcomes of the methodology all combined for Transmission has some effects that some parties have raised as concerns on aspects of the resulting charges. Some that have been identified are:

- Geographic distribution of prices. Under CWD the geographic distribution plays a part however it creates more of a level playing field with the ranges of charges between points being narrower than under CWD. In some cases this does mean prices rise from current levels and others fall.
- Prices of points, specifically Exit points that are close to Entry points. Similar to above, for some prices do rise from current levels.
- Whilst the size of the band of prices is narrower under CWD than LRMC, there are some prices that are potentially more significantly higher than others, even if in keeping with the methodology applied. Perhaps more noted in the enduring for Entry (St Fergus).
- Comparisons between the Existing or Historical Contract prices and all others generated under the RPM.

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