

Representation - Draft Modification Report

UNC 0621; 0621A; 0621B; 0621C; 0621D; 0621E; 0621F; 0621H; 0621J; 0621K*; 0621L

Amendments to Gas Transmission Charging Regime

*** Amendments to Gas Transmission Charging Regime and the treatment of Gas Storage**

Responses invited by: 5pm on 22 June 2018

To: enquiries@gasgovernance.co.uk

Representative:	Richard Pomroy
Organisation:	Wales & West Utilities Ltd
Date of Representation:	21 st June 2018
Support or oppose implementation?	0621 - Qualified Support 0621A - Qualified Support 0621B - Oppose 0621C - Oppose 0621D - Support 0621E - Oppose 0621F - Oppose 0621H - Oppose 0621J - Qualified Support 0621K - Oppose 0621L - Oppose
Expression of Preference:	<p><i>If either 0621; 0621A; 0621B; 0621C; 0621D; 0621E; 0621F; 0621H; 0621J; 0621K or 0621L were to be implemented, which <u>ONE</u> modification would be your preference?</i></p> <p>0621D</p>

Standard Relevant Objective:

0621
a) Positive
c) Positive
d) None
g) Positive

0621A
a) Positive
c) Positive
d) None
g) Positive

0621B
a) Negative
c) Positive
d) Negative
g) Negative

0621C
a) Negative
c) Positive
d) Negative
g) Negative

0621D
a) Positive
c) Positive
d) Positive
g) Positive

0621E
a) None
c) None
d) None
g) Positive

0621F
a) None
c) None
d) None
g) Positive

0621H
a) None
c) None
d) None
g) Positive

0621J
a) Positive
c) Positive
d) None
g) Positive

0621K
a) None
c) None
d) None
g) Positive

0621L
a) None
c) None
d) None
g) Positive

Charging Methodology Relevant Objective:	0621 a) None aa) None b) Positive c) Positive e) Positive
	0621A a) None aa) None b) Positive c) Positive e) Positive
	0621B a) Negative aa) None b) Positive c) Negative e) Positive
	0621C a) Negative aa) None b) Positive c) Negative e) Positive
	0621D a) Positive aa) None b) Positive c) Positive e) Positive
	0621E a) None aa) None b) None c) Positive e) Positive
	0621F a) None aa) None b) None c) Positive e) Positive
	0621H a) None aa) None b) None c) Positive e) Positive
	(continued overleaf)

Charging Methodology Relevant Objective (continued):	0621J a) None aa) None b) Positive c) Positive e) Positive
	0621K a) None aa) None b) None c) Positive e) Positive
	0621L a) None aa) None b) None c) Positive e) Positive

Reason for support/opposition and preference: Please summarise (in one paragraph) the key reason(s)

Summary

WWU:

- opposes all proposals where the proposer did not provide specific analysis (E, F H, K, L)
- opposes all proposals that had an enduring Optional Charge (B and C)
- supports and prefers 0621D
- gives qualified support to the rest (0621, A and J).

We have not commented on features that are common features between the proposals to keep this response to a manageable length.

0621

WWU gives qualified support to 0621

This proposal continues the Optional Charge albeit with a 60km cap for the interim period and for this reason WWU does not offer full support to 0621.

0621A

WWU gives qualified support to 0621A

The difference between 0621A and 0621 is that the discount on storage is 86% rather than 50%. We believe that the analysis provided justifies this approach. This proposal continues the Optional Charge albeit with a 60km cap for the interim period and for this reason WWU does not offer full support to 0621

0621B WWU opposes 0621B

Our main opposition to 0621B is that it proposes an enduring regime for the NTS Optional Charge which we strongly oppose. We acknowledge though that this proposal puts a distance cap of 60km on the NTS Optional Charge. The comments made regarding the Optional Charge under 0621C are equally applicable to B.

0621C

WWU opposes 0621C.

The key difference of 0621C is that it develops an enduring replacement for the Optional Commodity Charge that is capacity based. We understand that the rationale behind this is that

the proposed Capacity Weighted Distance model has some flaws in that the charges give inappropriate investment signals for sites close to entry points and therefore it is appropriate to add on an additional process to address this. Given that we are about to introduce a new charging model a better approach is to develop an approach that does not have these flaws. 0621C fails to justify the existence of the Optional Charge and just asserts that there is benefit in having it. There is no analysis of the effect of the optional charge and whether existing customers actually do benefit by some large customers being given a discount to dis-incentivise them from by-passing the NTS. To ensure that the generality of customers actually benefit the revenue foregone by paying the subsidy needs to be less than the revenue that would be lost if some users building by-passing pipelines. That is the subsidy should not be available to customers that will not build a by-passing pipeline. The problem with that approach is that there is arguably undue discrimination in favour of some customers by targeting the subsidy at certain customers. Secondly although some customers may have an incentive to build a by-passing pipeline there is a difference between having a potential cost saving and actually committing the resources and accepting the risks involved in building a by-passing pipeline.

0621D

WWU supports 0621D and prefers it.

The key benefit of 0621D is that it removes the unjustified cross subsidy to customers making use of the NTS Optional Commodity Charge from October 2019. We agree with the proposer that the Optional Charge currently does not satisfy the Gas Act requirement to develop an Economic and Efficient system and also agree that it does not satisfy the charging obligations in the NTS licence that charges reflect the costs **incurred** by the licensee. It is important to note that DN network operators, of which WWU is one, will not benefit from this change, however customers on DN networks and also NTS directly connected customers not making use of the Optional Commodity Charge will benefit.

0621D also recognises that the CWD model has adverse consequences for exit points close to one entry point but a considerable distance from others that are highly unlikely to feed it. For this reason it proposes to use the square root of distance rather than distance in the model. This means that the exit charges fall to between those from 0621 and 0621J (Postage Stamp).

0621D also includes the 86% discount to storage sites proposed by 0621A which we believe is justified based on the evidence submitted.

0621D also contains some useful provisions requiring NTS to publish data on its allowed revenue that will assist all shippers (for their ultimate contracts), and DNs (for their transportation revenue setting and forecasting) in turn benefiting all customers and Shippers using DN networks.

0621E

WWU opposes 0621E

A key element of the proposal is to have the interim process lasting two years for entry and three for exit. Although we acknowledge that Entry and Exit revenues are treated separately, this seems unnecessarily complex and suggests that if there is a compelling argument for a three year transition then it should be applied to both entry and exit. The proposer's argument relies on the T-4 capacity auction in electricity and therefore proposes that full capacity based exit charges should not be introduced until 1st October 2022 compared to 1st October 2021 under 0621. The implicit assumption is that bidders into this capacity market that use gas generation have already bid into this for capacity required in winter 21/22 based on existing charges and but will be charged on the revised basis from October 2021. The proposer did not provide any specific analysis to support the impact and presumed detriment to gas generators so it is not possible to assess whether this is material or not. Hence WWU opposes 0621E as no case for change has been made.

0621F

WWU opposes 0621F

The key argument seems to be that since interconnectors BBL and IUK provide a means of enabling continental storage to compete with GB storage then there should be a discount on

bidirectional flows on the in interconnector. The proposer provides analysis to support this position. Presumably if this change was made then the commercial position of GB storage operators would be adversely affected. There may be some merit in the proposer's argument but we are not convinced that it is justified. For this reason we oppose 0621F. The proposer also provides analysis of the beneficial effect that interconnection of the GB and continental gas markets have had on GB prices. This is interesting but we do not see its direct relevance to the proposal.

0621H

WWU opposes 0621H

This proposes to exclude historical contracts from the calculation of revenue recovery charges for both the interim and enduring periods. The proposer did not provide any specific analysis to support the proposal. Hence WWU opposes 0621H as no case for change has been made.

0621J

WWU gives qualified support to 0621J

This proposes a postage stamp approach to charges in which exit charges are based on capacity irrespective of the distance from the entry points. This has the benefit of simplicity and WWU has some sympathy with this approach because at a high level all users benefit from the whole system irrespective of the actual location of their exit point and the marginal cost of moving gas around is minimal and probably should be recovered by a commodity charge. We accept that in some cases, for example Scotland, it is not correct that Users benefit from the whole system because Scotland relies on St. Fergus; however the CWD model makes this assumption as well. This proposal follows 0621 by continuing with the Optional Charge albeit with a 60km cap for the interim period and for this reason WWU does not offer full support to 0621J.

0621K

WWU opposes 0621K.

This proposal proposes a 100% discount for interruptible capacity at exit. The argument is very similar to 0621A which argued for an 86% discount on the basis that this overall would mean that the transportation charges paid would have been the same as if the gas had not gone into storage. 0621K is arguing for 100% storage discount. The argument seems to be that a storage site would only take gas during times of low demand for other exit points. While this is no doubt correct, the charging methodology proposed will charge for system usage rather than charging on the basis of the marginal usage. This means that interruptible capacity now acquires a charge and we see no reason why storage users should be exempt.

There is clearly an impact of the proposed methodology on storage users in the same way that there is an impact on exit charges in Scotland but we do not see a case for making an enduring change to compensate.

The proposer did not provide any specific analysis to support the proposal so we are unable to assess the impact of this proposal. Hence WWU opposes 0621K as no case for change has been made.

0621L

WWU opposes 0621L

The main element of this proposal is that the target revenue is the gross revenue inclusive of existing and interim contracts. We assume that the problem with this is that given that the proposal is that the initial iteration will result in an under-recovery. The proposer did not provide any specific analysis to support the proposal so we are unable to assess the impact of this proposal. Hence WWU opposes 0621L as no case for change has been made.

Implementation: *What lead-time do you wish to see prior to implementation and why? Please specify which Modification if you are highlighting any issues.*

An early decision by Ofgem would help the industry prepare for this major change both commercially and to enable the system changes to be implemented. We realise that a final decision is not likely before March 2019 so failing this a minded to position would be useful. National Grid will no doubt advise on central system changes but our understanding is that these will need some time to design, test and implement so it seems likely that work will have to take place at risk pending a final decision. The industry has a number of changes in the pipeline plus a number of potential changes for which decisions are awaited so the sooner Ofgem can make decisions on those in its gift the easier it will be for the industry to make its plans.

Impacts and Costs: *What analysis, development and ongoing costs would you face?*

All proposals

Under all the proposals we expect to receive new charges from NTS, these will either be a new invoice type or new charge type. We will need to make minor changes to our systems to set these up.

Legal Text: *Are you satisfied that the legal text will deliver the intent of the Solution? Please specify which Modification if you are highlighting any issues.*

We have reviewed the legal text for WWU's Alternative D but not for the other Alternatives. We were satisfied that the legal text delivers the intended solution.

Modification Panel Members have requested that the following questions are addressed:
Please specify which Modification your views relate to.

1. *Do you believe there is specific issues that should be considered by Ofgem's Regulatory Impact Assessment?*

We think that it is important to consider the effect on customers on GDN networks in the analysis; however it is difficult to model these effects for the following reasons.

- a) For all proposals other than 0621D the Optional Charge exists in at least the interim period and owing to the confidentiality of the customer using this tariff the model outputs ignore the effect of the Optional Charge.
- b) It is not clear how Shipper behaviour will change as a result of the changes and hence the impact on DNs and in turn their customers is unclear.
- c) The effect on customers on GDN networks will depend on the allowances for NTS Exit Capacity in the DN licences for GT2 which may not match the actual NTS Exit Capacity Charges. Given the two year lag that GDNs have to give between charges in excess of allowances being charged to Shippers on GDN networks it can be seen that the effects are very difficult to model. This can lead to charges for a site directly connected to the NTS being different to the charges that the same site would face were it directly connected to a GDN due to the lag effect in passing NTS charges to GDNs through to customers. This is effectively a distortion of competition and cannot be considered a good outcome.
- d) In the enduring period NTS "k" will be recovered by means of capacity charges and GDNs will be exposed to some fluctuation due to this. For exit there is a risk that NTS "k" fluctuates between positive and negative due to the fact that charges are set in October but need to be set with a view of minimise NTS "k" over the financial year.
- e) The transitional effects on customers particularly in the Scotland LDZ although we note that no party has brought forward transitional proposals to mitigate this impact.

Ofgem should also look at the effect of the changes on GDNs as there are some effects on GDNs that are different from the effects on customers connected to GDN networks due to the terms in GDN and NTS licences.

Since 1st October 2012 National Grid Transmission (NGT) has invoiced the Gas Distribution Networks (GDNs) for booked NTS exit capacity and the GDNs recover these costs from Shippers. Previously NGT invoiced Shippers directly. Ofgem set allowances for the GDNs to recover expected costs associated with NTS exit capacity charges as part of RIIO-GD1. This arrangement seeks to ensure that GDNs are held whole when taking one year with another. During the RIIO-GD1 period GDNs have faced cash flow risk if the charges levied by the NTS are not equal to those forecast at final proposals and included in GDN allowances. For WWU this resulted in adverse cash flow impacts of approximately £2M a month for 24 months, these values are similar to the costs Shippers state they are facing around the UIG issue which are receiving much focus.

Given the fundamental nature of the changes proposed in the 0621 modifications there is a considerable likelihood that Shipper behaviours will change meaning that NTS forecasts of revenue from different parties will be inaccurate. This is likely to result in NTS charges being materially different from those forecast. The RIIO-GD2 price controls start in April 2021 and from that date GDN allowances for NTS exit capacity will be fixed. These allowance will be set during 2020 which is during the interim period and it is likely that the behavioural changes will still be occurring during this period and will continue beyond October 2021 when the enduring changes come into effect. For the whole of the RIIO-GD2 period GDNs are therefore exposed to the risk that NTS exit capacity charges are materially different from the allowances and we are keen to work with Ofgem to ensure that this risk is more appropriately balanced towards the NTS and away from the GDNs. Compared to the UIG issue this is easy to solve and should be addressed given the potential impacts on affected GDNs.

Ofgem requested that the following questions be included as part of the consultation. Panel agreed to include these:

- 2. The rationale in the report for having an interim period and using the obligated capacity as the Forecasted Contracted Capacity (FCC) is to avoid significant changes to charges and have a period to understand how booking behaviour changes. How does this compare to having two structural changes to charges (one at the start of the interim period and another at the enduring period)?*

The question is not correct, for GDNs the proposal is to use GDN booked capacity, we are not satisfied that this is reasonable and this may need further consideration in the future. Had an interim and enduring proposals have been raised separately then the individual responses could have been clearer in terms of the relevant objectives, as it is the responses have to be a combined view of both the interim and enduring solutions. We do understand the logic of having one proposal as it is easier to manage and two separate modifications carry the risk of inconsistencies being introduced during the process.

- 3. What (if any) consequences do you see from 'interim contracts' being allocated at QSEC and AMSEC auctions in 2019 given the timings of these auctions in the UNC and possible date of Ofgem decision on UNC621? What options are there to deal with these consequences and what impact would these options have?*

WWU is not responding to this question because we do not participate in the NTS entry processes.

- 4. Do you consider the proposals to be compliant with relevant legally binding decisions of the European Commission and/or the Agency for the Co-Operation of Energy Regulators?*

The allocation of individual products to different revenue categories is out of the scope of the UNC modification proposals however we believe that it is relevant to compliance with Article 4 of the TAR.

Our view is that revenue from the sale of interruptible capacity and revenue from the Optional Charge should both be Transmission Services Revenue rather than Non

Transmission Services Revenue as is currently the case. These allocations are National Grid licence issues; however they are relevant to TAR compliance.

TAR Article 4 states:

1. A given service shall be considered a transmission services where both of the following criteria are met:

(a) the costs of such service are caused by the cost drivers of both technical or forecasted contracted capacity and distance;

(b) the costs of such service are related to the investment in and operation of the infrastructure which is part of the regulated asset base for the provision of transmission services.

Where any of the criteria set out in points (a) and (b) are not complied with, a given service may be attributed to either transmission or non-transmission services subject to the findings of the periodic consultation by the transmission system operator(s) or the national regulatory authority and decision by the national regulatory authority, as set out in Articles 26 and 27.

Interruptible exit capacity

For interruptible exit capacity we maintain that both (a) and (b) are satisfied. For (a) the cost of the service is set with respect to the firm capacity cost which is clearly a determined by the cost drivers described in (a). A discount is applied to reflect the probability of interruption but this is to reflect that the service is not always available. For (b) The cost of interruptible capacity are related to both the investment and the operation of the regulated asset base for the provision of transmission services. More investment in the asset base will tend to make interruption less likely and so there is clearly a relationship between the two. It is clear that the operation of the assets will also affect the costs of interruptible capacity as operation of the assets will affect the cost of firm capacity and hence interruptible capacity.

The reason revenue allocation is important is due to the effect it has on the charges paid by customers on distribution networks. DN customers currently contribute about 80% of NTS Exit Transmission Services Revenue but only use about 50% of the Exit Capacity. If there are significant revenues from the sale of interruptible exit capacity to Shippers then if this is included in Transmission Services Revenue then it would reduce the share of the revenue contributed by customers on DN networks thereby addressing this disparity.

Optional Charge Revenue

We accept that the Optional Charge does not satisfy Article 4(a) of TAR. The reason is that by definition the Optional Charge is set with respect to some possible by-passing pipeline and we comment elsewhere regarding the resulting non-compliance of this approach with relevant charging objectives. We suggest that the issue of whether the Optional Charge Revenue should be regarded as Transmission Services Revenue should be subject to consultation. If Ofgem directs that a proposal including the Optional Charge is implemented (anyone other than 0621D) then our view is that since it replaces charges that are counted as part of Transmission Service Revenue then it is entirely reasonable that Optional Charge Revenues are counted as Transmission Services Revenue; albeit noting that most proposals only have the Optional Charge as a commodity charge for the interim period.

In summary, for an exit point a Shipper would as a default purchase firm exit capacity which is included in Transmission Services Revenue. Both Interruptible Exit Capacity and the Optional Charge are options for Shippers to not pay the firm exit capacity charge and in this respect it seems natural that any revenue associated with these should be counted as Transmission Services Revenue. If we were looking to determine whether these products served the same market we would observe that they were close substitutes on the demand side and conclude that they did.

5. *In what way do you consider the reference price methodologies proposed (Capacity Weighted Distance (CWD), CWD using square root of distance and Postage Stamp) to be cost reflective and meet the criteria in Article 7 of TAR?*

Article 7 of TAR states that the Reference Price Methodology shall aim at:

- (a) enabling network users to reproduce the calculation of reference prices and their accurate forecast;
- (b) taking into account the actual costs incurred for the provision of transmission services considering the level of complexity of the transmission network;
- (c) ensuring non-discrimination and prevent undue cross-subsidisation including by taking into account the cost allocation assessments set out in Article 5;
- (d) ensuring that significant volume risk related particularly to transports across an entry-exit system is not assigned to final customers within that entry-exit system;
- (e) ensuring that the resulting reference prices do not distort cross-border trade.

We have divided our comments into comments on the core methodologies and the Optional Charge.

Core methodology

- a) We believe that they all comply.
- b) All broadly meet this but we believe that CWD using the square root of distance most closely meets it. One criticism of CWD is that it assumes that gas may flow from any entry point to any exit point. In reality it is more likely that entry points that are closer to an exit point will be the source of the gas. This is a particular problem for exit points towards the extremity of the network that are relatively close to one entry point but a long way from others, for example those in Scotland. We believe that the CWD with the square root of distance goes some way to addressing this by giving relatively more weight to entry points that are closer to the exit point in question but without removing the distance entirely from the calculation as is the case with the postage stamp model.
- c) We consider that the three core methodologies proposed all broadly comply with Article 7. We believe that Article 5 allows the postage stamp model for Transmission Services Revenue recovery
- d) We consider that the core methodologies comply
- e) We consider that the core methodologies comply

Optional Charge (not applicable to 0621D)

- a) We believe that they all comply although we note that the identity of those using the Optional Charge is regarded as commercially confidential. We think that the identity of parties making use of the Optional Charge should be published so all interested parties are informed. Currently some people know this information due to their contacts in the relevant part of the industry but it is not generally available. The lack of transparency of those using the Optional Charge means that others have to guess the revenue not recovered by Transmission Services for these customers and the consequent impact on those customer paying Transmission Services charges.
- b) The Optional Charge clearly does not comply with this as it is based on the estimated (using a number of favourable assumptions) cost of building a bypassing pipeline. The TAR requires “taking into account the **actual costs incurred** in the provision of Transmission Services..”. If some parties believe that the core methodologies are not sufficiently cost reflective then the appropriate option is to propose a revised core methodology that addresses this issue.
- c) The optional Charge does not comply with any of the cost allocation assessments set out in Article 5 for commodity based charges (applies to all except 0621C) because, although the Optional Charge is based on distance and gas flows and therefore appears to comply with Article 5 b (ii), this requires charges to be based on cost drivers, that is the costs of using the Transmission System not the cost drivers from some theoretical bypassing pipeline. 0621C seeks to have a capacity charge basis for

the Optional Charge and therefore the relevant comparison is with Article 5 b (i), however the same objections apply as for the other proposals.

- d) All the proposals except 0621C have a distance cap, which will prevent the Irish Interconnector benefiting from the Optional Charge so they comply. It is not clear whether 0621C will prevent the Irish Interconnector using the Optional Charge so it is not clear whether 0621C is compliant.
- e) All the proposals except 0621C have a distance cap, which will prevent the Irish Interconnector benefiting from the Optional Charge so they comply. It is not clear whether 0621C will prevent the Irish Interconnector using the Optional Charge so it is not clear whether 0621C is compliant.

Taking the comments together we believe that 0621D is the most compliant with Article 7 as in our view the Optional Charge is not compliant. We accept that most of the proposals, with the exception of 0621B and 0621C, have the Optional Charge ending on 30th September 2020 so when considering only the enduring solution these are compliant. In our view, 0621B and 0621C are not compliant for both the interim and enduring solutions.

6. *The proposals have different combinations of specific capacity discounts for storage sites and bilateral interconnection points. In what way do you consider the different combinations facilitate effective competition between gas shippers and gas suppliers?*
- Some of the later proposals had no specific analysis provided so it is not possible without much work to substantiate whether there is a benefit. Alternatives F and K appear to be special pleading on behalf of the proposers. Alternative A (86% discount for storage operators also adopted by B,C,D,J and K) was backed by analysis and made an convincing case that with that level of discount they would be paying the same transportation charges in total as if the gas had not spent some time in storage. This should mean gas from storage is equally attractive as gas from other sources and would be expected to facilitate competition. Alternative K which gives 100% discount seems intuitively wrong and suggests an unjustified subsidy to storage operators which seems likely to have an adverse effect on competition. We are not convinced by the logic of the argument behind alternative F (100% discount for bilateral flows), it seems to give a subsidy to enable continental storage to compete on preferential terms with GB storage and on that basis seems likely to have an adverse effect on competition. f correct this would run counter to the principle that the applicable transportation charges should be clear in advance. We further believe that whilst flows of Interconnector and Storage sites may historically have been similar, interconnectors do have the ability to move gas to and from GB without drawing on European storage. As such there are additional differences between the two businesses that are not considered in proposal F.

Are there any errors or omissions in this Modification Report that you think should be taken into account? *Include details of any impacts/costs to your organisation that are directly related to this.*

Given the time available and the analysis provided by the proposers the workgroup report is as complete as it could be.

Please provide below any additional analysis or information to support your representation

Future developments

Given the complexity of these proposals and the likelihood of changes in behaviours which may take a while to settle down, we expect that there may be further modifications following the implementation of one of these proposals. These may include the treatment of Forecasted Contracted Capacity and the difference in treatment between DNs where booked capacity is used and Shippers where flows are used; the values of multipliers; transparency of who is using the

Optional Charge if it continues in the enduring period (B and C). There may also be scope for having more exit products.

We observe that the basic assumption in this model is that the NTS is unconstrained. In so far as this is correct then the logical development is to see this worked out in the availability of flex to DNs and requests for small increases in capacity at offtakes.

Interactions between 0636 series and 0621 series

In the workgroup some participants were very concerned about the interactions between the 0636 series and the 0621 series. The issue being that if 0636 was delayed by Alternatives then the baseline on which 0621 series was assessed would change. We believe that too much was made of this issue and that the 0636 series could have finished earlier had the 0636 workgroup members collectively made more effort to do so. We also observe that the 0621 series of modifications has wide ranging impacts and covers much more than the Optional Charge important though that is. The key point at issue is the level of the Optional Charge that will be in effect on 1st October 2019 when the 0621 proposals take effect.

Interim period

The 0636 workgroup report makes clear that the largest effect will be caused by 0636 and the smallest effect by 0636B and D which have little impact compared to the current position. Therefore when analysing the effect of 0636 changes on the 0621 it is relatively easy to establish a range of impact which will range between zero and the effect of 0636.

Enduring

In terms of the enduring impact all the 0621 series with the exception of B and C remove the Optional Charge.

The table below shows our view of the interactions between the 0636 series and the 0621 series. Except where stated the position on the date stated is compared to the position immediately before that date.

Optional Charge interactions	1st October 2018 (0636) (1)	1st October 2019 (0621 interim) (2)		1st October 2021 (0621 enduring) compared to 1st October 2018	
		Minimum effect	Maximum effect	Minimum effect	Maximum effect
Minimum effect	None of 0636 series implemented or 0636B or 0636D no effect or very small compared to previous position	One of 0621 series implemented except C and D (2) All 0621 proposals except B,C, D make no changes for the interim period	0621D implemented removes Optional Charge for interim period	0621B and C optional charge exists in enduring period	All (except B, C) remove Optional Charge for enduring period
Maximum effect	0636 implemented	One of 0621 series implemented except C and D (2) All 0621 proposals except B,C, D make no changes for the interim period	0621D implemented removes Optional Charge for interim period	0621B and C optional charge exists in enduring period	All (except B, C) remove Optional Charge for enduring period

Notes

- (1) The effect of 0636A and C fall in between the minimum and maximum
- (2) 0621B falls in between, effect of 0621C not clear as proposer provided no specific analysis

For example if 0636 is implemented on 1st October 2018 the next change will be implementation of one of the 0621 series on 1st October 2019. Most of the 0621 series will have no effect as most continue with the existing Optional Charge (as of 30th September 2019) for the interim period. The maximum effect will be caused by 0621D which removes the Optional Charge on 1st October 2019. 0621C probably falls in between the two. Turning to the enduring period the minimum effect compared to 1st October 2018 is 0621B and C as they have an Optional Charge in the enduring period and the maximum effect is caused by the rest which remove the Optional Charge for the enduring period. An additional column could be added to show the effect of changes between the interim and enduring period.

Our view is that this analysis shows that at a high level although the interactions between 0636 series and 0621 series do add some complications there are only a limited number of combinations that need to be considered.