

UNC Workgroup 0670R Minutes
Review of the charging methodology to avoid the inefficient bypass
of the NTS
Tuesday 03 March 2020
at Radcliffe House, Blenheim Court, Warwick Road, Solihull B91 2AA

Attendees		
Rebecca Hailes (Chair)	(RH)	Joint Office
Karen Visgarda (Secretary)	(KV)	Joint Office
Adam Bates	(AB)	South Hook Gas
Alsarif Satti	(ASa)	Ofgem
Andrew Pearce	(AP)	BP
Anna Shrigley	(ASh)	Eni Trading & Shipping
Bill Reed*	(BR)	RWE
Chris Wright	(CWr)	Exxon Mobil
Colin Williams	(CW)	National Grid
Dan Hisgett	(DHi)	National Grid
David Mitchell	(DM)	Chemical Industries Association (CIA)
David O'Neill	(DON)	Ofgem
Debra Hawkin	(DH)	TPA Solutions
Henk Kreuze	(HK)	Vermilion Energy
Jeff Chandler*	(JCh)	SSE
John Costa	(JC)	EDF Energy
Julie Cox	(JCx)	Energy UK
Kamla Rhodes	(KR)	Conoco Phillips
Kirsty Ingham*	(KI)	ESB
Laura Johnson	(LJ)	National Grid
Nick Wye	(NW)	Waters Wye Associates Ltd
Nitin Prajapati*	(NP)	Cadent
Penny Garner	(PG)	Joint Office
Riccardo Rossi	(RR)	Centrica
Richard Fairholme*	(RF)	Uniper
Richard Pomroy*	(RP)	Wales & West Utilities
Sinead Obeng*	(SO)	Gazprom
Steve Pownall	(SP)	Xoserve
Terry Burke*	(TB)	Equinor

Copies of all papers are available at: <http://www.gasgovernance.co.uk/0670/030320>

The Request Workgroup Report is due to be presented at the UNC Modification Panel by 16 July 2020.

1.0 Introduction and Status Review

1.1. Approval of Minutes (11 February 2020)

RH explained the minutes had been amended by Ofgem following the previous meeting. The minutes from the previous were then approved with the amendments.

1.2. Pre Modification discussions

1.2.1. Introduction of Conditional Discounts for Avoiding Inefficient Bypass of the NTS

Nick Wye (NW) explained that in essence, this Modification was based on the National Grid Modification addressed in item 1.2.2 below. He added that the Modification 0678/0678A did not include an Optional Commodity Charge (OCC) product and that from 01 October 2020 there would not be an OCC type tariff to discourage NTS bypass, so any inefficient NTS bypass would result in higher charges for those customers connected to the GB gas network, than they would have been if such bypasses had not occurred. He explained that the purpose of the Modification was to deliver a solution which more accurately represented the costs of bypassing the NTS, to actively discourage inefficient bypass.

NW then explained this Alternative Modification proposed a Conditional Discount Product to replace the current OCC. His proposed Modification included a discount to standard Transmission Services Capacity Charges and also included a discount to Non-Transmission Services Commodity Charges, as well as considering all costs which were to be incurred by a potential bypass. He added the application of the Non-Transmission Services Commodity Discount differed from the Transmission Services Capacity Discount on the basis that it was a flow based charge and was calculated in the same way as the National Grid Modification and that the Non-Transmission Services Commodity Discount was derived by reference to the relative max distance of potential bypass routes compared to the overall distance of the NTS. He said this ratio was then applied to System Operator (SO) Base Revenues (in including k) to generate an amount of revenue to be recovered from eligible flows, which was converted to a p/kwh rate and compared to the standard rate to produce a level of discount of 73% to standard rates. NW said he had investigated the distance of 28km and multiplied that by the 22 routes in reference to the pipeline and the overall distance was 616km, equating to 8,000 km of NTS pipeline. This ratio was 7.7%, so that was applied to the SO Business Rules in the National Grid revenue report in the form of £121m to operate the network; when converted against the 22 routes, this equated to £9.4m shorthaul, and so the discount to the commodity charge would be 73%. This is a commodity charge to flow volume and exit flow.

NW said this Alternative Modification would be raised and that the proposal was similar to the National Grid Modification, so it made sense for them to be considered in unison with the same timelines and urgency criteria, as it addressed the same issue and contained common characteristics, albeit with the inclusion of an additional discount.

1.2.2. Review of the charging methodology to avoid the inefficient bypass of the NTS

Colin Williams (CW) provided an overview of the pre-Modification and explained that it had now gone through the Joint Office Critical Friend process and had been further amended. A brief general discussion took place in relation to the proposed timetable and in relation to the urgency status. CW added that the decision from Ofgem was needed in a timely manner, in order for the Modification to be presented to the scheduled Panel on

16 April 2020 and then to allow the sufficient time to enable the charges to be signed off in May 2020 for implementation on 01 October 2020. He added that if a decision was made after May, but prior to October, then the charges could be included in the Revenue Recovery Charges (RRC), however if the decision was not made until mid-year, then these charges would not be included in the Gas Year 2020/21.

Richard Pomroy (RP) asked where the revenue collected from this charge would go. CW confirmed that they would be capacity revenue. RP said that absolute total clarity was required in relation to this matter, as this information would have to be included within the Licence conditions in Section E. CW said that the TO and SO references would be subsequently included within the Modification.

Nitin Prajapati (NP) raised concerns about seemingly rushing ahead with Modifications which are conditional on others despite no overall decision on Modification 0678/0678A yet being confirmed and moving ahead prior to this decision. He was concerned about this setting an unhelpful precedent for the future. CW said the urgency status was surrounding the need to have charges in place for October 2020, he confirmed a purely sequential process would not put in place a replacement product by 01 October 2020.

David O'Neill (DON) said Ofgem anticipated (given recent NTS CMF discussions) receiving requests for decisions on urgency and, possibly and subsequently, on the modifications themselves. When considering those decisions Ofgem may consider the process. DON gave the example of UNC696 where Ofgem had sent back the modification because of process issues.

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Julie Cox (JCx) asked DON whose task it was to make the decision on whether it was acceptable to raise a Modification conditional on another Modification, which had not yet been formally approved. She stated that clarity was very much required, as a decision on the conditionality was needed. DON reiterated the points above.

Deleted: again reiterated what he confirmed under NTSCMF discussions that once the formal Modification(s) had been received, the urgency criteria would be assessed. He confirmed that he understood it was not Ofgem's decision to say whether the process in respect of the conditionality of the Modifications was appropriate or not.

Riccardo Rossi (RR) said he understood the need for urgency, however he did have concerns on the 'rushing' aspect and added that the Modifications needed to be looked at in line with Modifications 0678/0678A and Sinead Obeng (SO) concurred with the concerns raised by RR. RH and CW both confirmed that the analysis took into consideration the fact that Modification 0678 would be implemented for October 2020. SO also raised the question regarding the systems impact with a tight timeline and then the potential for the systems not being sufficiently developed, and she asked what was the back-up plan if the October deadline was not met. CW said that all efforts were focused on meeting this deadline and the timelines were tight, but that October was the date that was being worked towards. He said that a worst-case scenario would be if the October deadline was not met, then it would be delayed by a month, but he reiterated that everyone was working towards October 2020. Steve Pownall (SP) concurred with this statement and he added that Xoserve and National Grid had been working very closely together regarding this matter.

Deleted: said that it was not Ofgem's decision to say whether was something was appropriate or not and that the criteria for urgency would be considered once the formal Modifications were received. He added that Ofgem may take the process into account when considering the Modification(s). He added that the process suggested was the only way that a product could be introduced in time for October 2020.

CW then provided an overview of the *Conditional NTS Capacity Charge Discount (CNCCD) Modification 0XXX Analysis & Methodology* documentation and drew attention to specific areas of interest. He drew attention to the table below as detailed on Page 6 and explained that consequences if the Modification was implemented were as below and as detailed in section 3.8.

With any arrangement that results in a discounted treatment for some users, the amount of the 'discount' or benefits realised will adjust other charges. This can often be referred to as a cross subsidy, given it results in an amount not paid by some, and picked up by others. As a result, the level of this redistribution should also play a part in the assessment of the Modification. The level of redistribution should always be kept under review and should it become necessary to update any element of the method outlined in this Modification, it would be via a UNC change at the appropriate time.

	Prevailing NTS OCC
OCC Contribution	£28,695,987.33
Potential TO Socialisation	£97,559,664.09
TO Socialisation as % of MAR	12.9%
SO Socialisation	£57,983,030.86
SO Socialisation as % of MAR	7.7%
Total Socialisation as % of MAR	20.6%
Routes Considered	37
Max Effective Rate Discount	99.3%
Longest Route Considered	244.0

Anna Shrigley (ASh) disputed these 2020/2021 figures and said they were very high due to the discount on the capacity, i.e. with 100% discount on the shorthaul capacity. CW said that all needed to be mindful to the numbers and the consequences of Modification 0678 and 0678A, as the money would be re-distributed.

A lengthy and general discussion then took place surrounding the socialisation input and output, together with the revenue re-distribution. Bill Reed (BR), RR, JCx and Jeff Chandler (JCh) all proposed that the overall methodology should be kept under review and CW agreed and confirmed that it would be. JCx asked if there was a specific review cycle referred to within the Modification and CW said there was not a defined review cycle included presently but confirmed this would be further amended with outputs over time.

CW then provided an overview of the solution and drew attention to the Conditional Discount, and quoted Point 3.22;

This Modification, raised following development within Request 0670R, is designed against the baseline of Modification 0678A and is considered conditional, based upon acceptance of Modification 0678A. Should these be rejected or another alternate accepted, we would expect this Modification to be rejected by the Authority with immediate effect.

A protracted general discussion then took place regarding the eligibility criteria, in relation to firm capacity and interruptible capacity and CW said that interruptible capacity was already discounted. Chris Wright (CWr) queried the interruptible capacity and the discounted element as per Article 4 of EU TAR. Richard Fairholme (RF) wanted to know if there was a zero-exit baseline and if so, what the position was to buy firm capacity, i.e. would this include non-obligated firm capacity? CW said this was correct and RF said in that case, there was a possibility that he may raise an Alternative Modification and that this was still being discussed internally.

CWr said in relation to Point 3.23 in the Modification, reproduced below, he felt this was counter-intuitive to the Modification, as a User would still be able to bypass, and under the shorthaul option they could apply for a price change. RR also agreed with this comment and added that there was risk of different prices being applied to different parties for the same product in relation to the transfer of capacity.

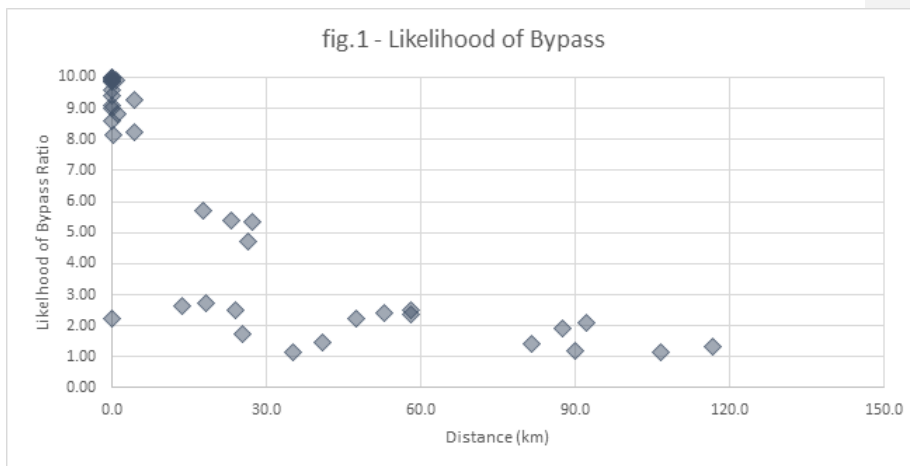
Point 3.23 For the Eligible Quantity (EQ) (which will have an Eligible Entry Quantity and an Eligible Exit Quantity), over a qualifying nominated route (an Entry point and an Exit point), as per the Licence, there will be a discount to Transmission Services Entry and Exit Capacity reserve prices. The level of discount will vary dependent on distance, reducing as distances increase up to a maximum distance. A maximum and minimum discount have been developed along with eligibility and access criteria. Any capacity or flow above the Eligible Quantity will pay the standard charges.

Dan Hisgett (DHI) then provided an overview of the Eligible Quantity Calculations and drew attention to a number of examples and scenarios using the Business Rules. These can viewed at: <https://www.gasgovernance.co.uk/0670/030320>

A brief general discussion ensued in relation to the discount and Bill Reed (BR) had some questions in relation to how the formulas worked regarding the discount on the capacity and flow in the firm element. ASH said the formula was based on the commodity charge. DHI continued to move through the examples. Both BR and RR said that the way the formula was presented was not that clear, as it made it look un-accessible. Laura Johnson (LJ) explained that the existing capacity would be treated as priority for existing contracts. CWr asked what would be the price that is discounted, LJ said it would be discounted if it was bought after ~~06 April 2019~~ 06 April 2017. CW stated that they were not able to identify any party other than the original purchaser as National Grid did not track the trades. DHI then concluded the overview of the examples.

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CW moved on to provide an overview of *Determining a Discount Curve* and talked through the schematic and point 3.32 as detailed below:



Point 3.32. Using a curve, the discount level is scaled down dependant on distance from the Entry point to a minimum of 10% discount. This limit of 10% discount is also informed by the likelihood of bypass, the ratios suggest that no

User beyond 27.2km would consider investing the time, effort and capital required to bypass when the benefits over 10 years are not significant.

DON said it would be useful to consider the distance cap given this was a short-haul product (emphasising short) and he added that ACER may also be interested in this area too. RH asked if ACER had specifically commented on the discount number. DON said no, but that it would be useful to look at other Countries. CW confirmed this area was being investigated further in relation to planning consents. DON added that, on average, the greater the bypass distance, the more complex bypass is likely to be, but it of course depended on site-specific issues. CWr asked DON if Ofgem had explored distance caps in other Countries and he said yes that had been looked at. JCx asked CW from a timeline PARCA process/, development of the consent orders and national infrastructure perspective if these were required. CW said they had adopted a general approach and the timelines could possibly be a little on the generous side, but that the PARCA process seemed a reasonable proportional approach. CWr said he was aware the distance of 28km was under review and that the methodology would also be reviewed, however he wanted to know if the 28km could be changed year on year. CW said no, that was not the case and that a change would require a UNC Modification, with the distance being updated by the UNC and that the distance was going to become a defined term.

CW then gave an overview of the Application and Disapplication as defined in 3.48

Once applied for, a nomination is considered to be enduring and will not roll over for each Gas Year unless there is a disapplication.

Richard Pomroy (RP) said that he understood this was in relation to the cost saving of discounts based on 10 years. He said to apply this for a 10 year period was not logical and CW said that it was assumed the use of capacity took in the commitment side of the process too, in order to keep the barrier to entry as minimal as possible and that the Shippers could not be locked in for 10 years. RP said if the Shipper had built a bypass, then a different product would be needed, and he did not understand how the same product could be offered for two different prices. NW said in essence, this was no different to the last 20 years. CWr felt that this could be a worthy contender for discrimination.

CW then reiterated the proposed timetable and the implementation count down for October 2020, adding that presently, until Ofgem had received the formal Modification these were aspirational, although his hope was a decision would be made by Ofgem on Urgency on 11 March 2020.

He once again said that if any parties were considering raising an Alternative Modification this would have to be raised and submitted to the Joint Office by 12 noon on Thursday 05 March 2020 at the latest. He said that he would value those parties speaking to him directly as soon as possible.

In addition he added that the baseline would be Modification 0678/0678A and that National Grid was proposing workshops via WebEx to talk through the proposals. Penny Garner (PG) wanted to make it clear that these were facilitated solely by National Grid and that the Joint Office would not be managing or minuting these sessions.

CW then provided an overview of the *Likelihood of Bypass* as detailed below:

23. In assessing the routes which posed a genuine threat of bypass we have used a set of data published by the Council of European Energy Regulators.

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24. From this report, we have taken the formula below as the option presented which "defines better the costs at both ends of the graph, so for small diameters and large diameters":

$$\text{Pipeline Construction Cost (€/km)} = 642.985 D^2 (\text{"}) + 2,464.295 D (\text{"}) + 398,135.326$$

Where D is the pipe diameter in inches.

25. To calculate the pipe diameter (CW confirmed the pipe diameter was 12.2) for a range of routes we have used the General Flow Equation as below:

$$D = \left(\frac{10^4}{7.574} * \frac{Q\sqrt{K}}{E} \right)^{0.4} * \left(\frac{Ps}{Ts} \right)^{0.4} * \left(\frac{S * L * Z * T}{P1^2 - P2^2} \right)^{0.2}$$

Where:

D is the pipe diameter in mm (to be converted to inches)

Q is the Flow in mscmd, we have used the current MNEPOR as at 31/01/2020

K is the Friction Factor

E is the Efficiency of the pipe (assumed to be 1.0 for a new, perfectly efficient pipe)

Ps is Standard Pressure

Ts is Pipe Average Temperature

S is the Specific Gravity of Gas

L is the Length of Pipe taken from the Distance Matrix as described below

Z is the Compressibility of Gas

T is Temperature

P1 is the Inlet Pressure

P2 is the Outlet Pressure

All constants are taken from the current TPD Section Y 2.5.2 - The Expansion Constant. This section is used currently in reference to the Long Run Marginal Costs and will be removed from the UNC as part of the implementation of 0678A.

26. This calculation uses two sets of distances. As part of Modification 0678 a Pipeline Distance Matrix was produced, providing point to point distances for all Entry and Exit.

RH wanted to know if this information was going to be included in with the Modification and CW confirmed that yes it was, via the form of appendices.

2.0 Review of Outstanding Actions

Action 0102: ENI Trading & Shipping (AS) to provide a practical example of primary and secondary capacity. National Grid (CW) to provide a suitable worked example based on ENI's suggestion.

Update: CW confirmed this action could now be closed as the worked example had been completed. **Closed.**

Action 0201: National Grid (DHi) to provide the Excel version of the equation to enable Workgroup participants to calculate the rates.

Update: DHi confirmed this action could be closed as the equation had been supplied and published. **Closed**

Action 0202: National Grid (CW) to discuss internally with the Capacity Access Review Team the area of capacity trading for existing and non-existing contracts.

Update: CW confirmed that discussions had now taken place with the Capacity Access Review Team and so this action could now be closed. **Closed**

3.0 Consideration of Business Rules

Not discussed in the meeting.

4.0 Review of Relevant Objectives

CW provided an overview of the Relevant Objectives which are detailed below:

Relevant Objective	Identified impact
c) Efficient discharge of the licensee's obligations.	Positive
d) Securing of effective competition: (i) between relevant shippers. (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.	Positive

Demonstration of how the Relevant Objectives are furthered:

- c) Efficient discharge of the licensee's obligations.
 The proposed changes to the UNC support the implementation of the new NTS Conditional Discount. Standard Special Condition A5(5) of the NTS Licence sets out the relevant methodology objectives and National Grid NTS believes that these objectives are better facilitated for the reasons detailed below (Relevant Charging Methodology Objectives: Demonstration of how the Relevant Objectives are furthered)
- d) Securing of effective competition between relevant shippers.
 The proposed changes to the UNC support the implementation of the new NTS Conditional Discount. To the extent that this charge is expected to provide an incentive for

large consumers located close to NTS points of entry to utilise (or continue to utilise) the NTS, thereby enhancing effective competition.

Section Y (Charging Methodology) Modifications

Impact of the modification on the Relevant Charging Methodology Objectives:	
Relevant Objective	Identified impact
a) Save in so far as paragraphs (aa) or (d) apply, that compliance with the charging methodology results in charges which reflect the costs incurred by the licensee in its transportation business;	Positive
aa) That, in so far as prices in respect of transportation arrangements are established by auction, either: <ul style="list-style-type: none"> (i) no reserve price is applied, or (ii) that reserve price is set at a level - <ul style="list-style-type: none"> (I) best calculated to promote efficiency and avoid undue preference in the supply of transportation services; and (II) best calculated to promote competition between gas suppliers and between gas shippers; 	Positive
b) That, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business;	Positive
c) That, so far as is consistent with sub-paragraphs (a) and (b), compliance with the charging methodology facilitates effective competition between gas shippers and between gas suppliers; and	Positive
e) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	Positive

BR said he questioned Relevant Objective e) as above, from avoiding potential bypass costs being levied and CW said those costs would find a way into the bypass regardless. BR felt the wording should be amended in relation to the bypass costs and CW agreed to change the definition and would include the use of flow to show dedicated commitment. Paul Youngman (PY) agreed it undermined the capacity bypass and needed more detail to provide clarity. BR said if a booking for firm capacity to flow was confirmed and then the party did not flow against it, in the new world, this would then become a commodity charge and could not be against the flow. JCh agreed with this comment and said this could result in a party being forced into building their own pipeline. CW disagreed with these comments and said that it was not a commodity charge at all and that it was compliant with Article 4 of EU TAR.

RH suggested that Workgroup could consider if any additional questions should be included in the consultation template, especially as it was wholly possible that Panel would not get a chance to consider the Modifications. She added that Ofgem would need to make a decision regarding whether additional questions were required. RR said that a question should be included in the consultation template around the conditionality regarding the Modifications and this should be worded by Ofgem and baseline being other than the UNC.

BR reiterated that he felt there was an issue in relation to the commodity and capacity charges, as these had not been fully debated within the Modification, as the discount could be related to the capacity and not the flow. CW reiterated that the utilisation of capacity flows and the overall premise had been in place since 2019 and that he was comfortable with the proposal from a

utilisation of capacity perspective. Both JCx and BR said that there was scope for taking a longer term view of the flows, in order to provide a more realistic view, as in, if the pipeline had been built, together with the fact that some of the power stations could be decommissioned over time, and that this needed to be recognised.

5.0 Review of UNC process

Not discussed in the meeting.

6.0 Next Steps

RH said her aspiration was for the alternative Modifications to be submitted to the Joint Office in an expedient manner, by 12 noon on Thursday 05 March 2020, in order for them to be forwarded to Ofgem for them to make a decision on 11 March 2020 and then to proceed in line with the suggested timetable to enable Ofgem to make a final decision around the same time as with Modification 0678/678A.

RH said the next meeting would be held on 07 April 2020 in Solihull and the areas of discussion would potentially include:

- Review of amended and Alternative Modifications
- Review of Business Rules
- Review of Impacts and Costs
- Review of Relevant Objectives
- Consideration of Wider Industry Impacts
- Consideration of Legal Text
- Review of Relevant Objectives
- Review of UNC process and next steps
- Development of Workgroup Report

7.0 Any Other Business

None.

8.0 Diary Planning

Further details of planned meetings are available at: <https://www.gasgovernance.co.uk/events-calendar/month>

Workgroup meetings will take place as follows:

Time / Date	Venue	Workgroup Programme
10:00 Tuesday 07 April 2020	Radcliffe House, Blenheim Court Warwick Road Solihull B91 2AA	<ul style="list-style-type: none">• Review of amended and Alternative Modifications• Review of Business Rules• Review of Relevant Objectives• Review of UNC process and next steps

Action Table (as at 03 March 2020)

Action Ref	Meeting Date(s)	Minute Ref	Action	Owner	Status Update
0102	28/01/20	1.0	ENI Trading & Shipping (AS) to provide a practical example of primary and secondary capacity. National Grid (CW) to provide a suitable worked example based on ENI's suggestion.	ENI (AS) and National Grid (CW)	Closed
0201	11/02/20	3.0	National Grid (DHi) to provide the Excel version of the equation to enable Workgroup participants to calculate the rates.	National Grid (DHi)	Closed
0202	11/02/20	3.0	National Grid (CW) to discuss internally with the Capacity Access Review Team the area of capacity trading for existing and non-existing contracts.	National Grid (CW)	Closed