









UNC Draft Modification Report	At what stage is this document in the process?
<p>UNC 0678/B: Amendments to Gas Transmission Charging Regime</p> <p>UNC 0678A: Amendments to Gas Transmission Charging Regime (Postage Stamp)</p> <p>UNC 0678C: Amendments to Gas Charging Regime (Postage Stamp)</p> <p>UNC 0678D/G: Amendments to Gas Transmission Charging Regime including a Cost based Optional Capacity Charge</p> <p>UNC 0678E: Amendments to Gas Transmission Charging Regime – Treatment of Storage</p> <p>UNC 0678F: Amendments to Gas Transmission Charging Regime – Treatment of Unprotected Entry Capacity Storage</p> <p>0678H: Amendments to Gas Charging Regime (Postage Stamp) including a Cost based Optional Capacity Charge</p>	<div data-bbox="1185 349 1453 421">01 Modification</div> <div data-bbox="1185 434 1453 506">02 Workgroup Report</div> <div data-bbox="1185 519 1453 591">03 Draft Modification Report</div> <div data-bbox="1185 604 1453 676">04 Final Modification Report</div>

<p>UNC 0678I: Amendments to Gas Transmission Charging Regime including Wheeling and an Ireland Security Discount</p> <p>UNC 0678J: Amendments to Gas Transmission Charging Regime (Postage Stamp) including a Cost based Optional Capacity Charge</p>	
<p>Purpose of Modification:</p> <p>The purpose of these Modification Proposals is to amend the Gas Transmission Charging regime in order to better meet the relevant charging objectives and customer/stakeholder provided objectives for Gas Transmission Transportation charges and to deliver compliance with relevant EU codes (notably the EU Tariff Code, also known as TAR NC).</p>	
	<p>Modifications 0678 and all Alternatives are subject to Authority Direction.</p> <p>This Draft Modification Report is issued for consultation. All parties are invited to consider whether they wish to submit views regarding this modification.</p> <p>The close-out date for responses is 08 May 2019, which should be sent to enquiries@gasgovernance.co.uk. A response template, which you may wish to use, is at www.gasgovernance.co.uk/0678.</p> <p>The UNC Modification Panel will consider the responses on 23 May 2019 and agree whether or not any of these Modifications should be made recommended for implementation.</p> <p>The Final Modification Report with the UNC Modification Panel recommendation will be issued to the Authority on 29 May 2019.</p>
	<p>High Impact:</p> <p>All parties that pay NTS Transportation Charges and / or have a connection to the NTS, and National Grid NTS.</p>
	<p>Medium Impact:</p> <p>N/A</p>
	<p>Low Impact:</p> <p>N/A</p>

Contents		 Any questions?
1	Report structure and how to use the report	6
2	Introduction	8
3	Comparison table: Differences between each of the 0678 Modifications	13
4	Workgroup Impact Assessment	16
4.1.	Approach	16
4.2.	Integration of RPM, FCC, Revenue Recovery and Existing Contracts	22
4.3.	Forecasted Contracted Capacity	22
4.4.	Revenue Recovery	30
4.5.	Existing Contracts	33
4.6.	Multipliers	36
4.7.	Interruptible Discount	37
4.8.	Specific Capacity Discounts	40
4.9.	NTS Optional Charging arrangements	43
4.10.	TAR NC Compliance Assessments	48
4.11.	Topics raised in Ofgem's Modification 0621 Decision Letter	62
4.12.	Regulatory Impact Assessment	73
4.13.	Impact Analysis	73
4.14.	Consumer Impacts	82
4.15.	DN impact	85
4.16.	Implementation timings	99
4.17.	Independent Assurances on the development of any new Charging Models	105
4.18.	General Non-Transmission Charges	105
4.19.	K Principles and adjusting revenues in subsequent years	106
4.20.	Central Systems Impacts	107
5	Relevant Objectives	107
6	Legal Text	139
7	Recommendations	141
		 enquiries@gasgov.uk rncance.co.uk
		 0121 288 2107
		Transporter (Legal Text Provider): National Grid
		Systems Provider: Xoserve
		 commercial.enquiries@xoserve.com
		Proposer: Please refer to Table 1 for the list of Modification Proposers

Timetable

Modification timetable:

Ofgem decision on urgency	25 January 2019
Workgroup 1 - "Approach. Compliance"	29 January 2019
Workgroup 2 - "Integration of RPM, FCC, Revenue Recovery and existing contracts"	31 January 2019
Workgroup 3 - "Multipliers and Discounts. 'Shorthaul' approach" (part of NTSCMF)	05 February 2019
Workgroup 4 - "Compliance. FCC"	11 February 2019
Workgroup 5 - "Non-transmission charges. Final overview"	13 February 2019
Workgroup 6 - "Workgroup Report"	14 February 2019
Workgroup 7 - "Workgroup Report"	18 February 2019
Workgroup 7a - "Workgroup Report"	20 February 2019
Workgroup 8 - "Workgroup Report"	25 February 2019
Workgroup 9 - "Workgroup Report"	27 February 2019
Workgroup 9a - "Workgroup Report"	28 February 2019
Workgroup 10 - "Workgroup Report"	04 March 2019
Workgroup 11 - "Workgroup Report"	06 March 2019
(Workgroup Extension granted)	08 March 2019
Workgroup 11 - "Review Final Modifications"	28 March 2019
Workgroup 12 - "Review and finalise analysis"	02 April 2019
Workgroup 13 - "Finalise Relevant Objectives"	03 April 2019
Workgroup 14 - "Finalise Legal Text"	04 April 2019
Workgroup 15 - "Finalise Compliance"	08 April 2019
Workgroup 16 - "Finalise Workgroup Report"	10 April 2019
Draft Modification Report finalised and issued for consultation	12 April 2019
Consultation commences	15 April 2019
Consultation Close-out for representations	08 May 2019
Final Modification Report available for Panel	15 May 2019
Modification Panel decision	23 May 2019
Final Modification Report issued to Ofgem	29 May 2019

Table 1: List of Modification Proposers

Modification	Proposer	Organisation	Email Address	Telephone
0678	Colin Williams	National Grid	colin.williams@nationalgrid.com	07785 451776
0678A	Bill Reed	RWE Supply & Trading GmbH	bill.reed@rwe.com	07795 355310
0678B	Graham Jack	Centrica	graham.jack@centrica.com	07979 564929
0678C	Jeff Chandler	SSE	jeff.chander@sse.com	07795 355310
0678D	Anna Shrigley	Eni	anna.shrigley@eni.com	020 7863 3651 07932 114 602
0678E	George Grant	Gateway LNG Company Ltd	ggrant@stagenenergy.com	0131 550 3380
0678F	Benoit Enault	Storengy UK Limited	benoit.enault@storengy.co.uk	01606 815 372
0678G	Iwan Hughes	Vitol SA Geneva	ihughes@vpi-i.com	020 3837 5795
0678H	Alastair Tolley	EP UK Investments	alastair.tolley@epuki.co.uk	020 3826 4900
0678I	Sinead Obeng	Gazprom Marketing & Trading Limited	sinead.obeng@gazprom-mt.com	020 7756 9732 07711 360905
0678J	Adam Bates	South Hook Gas Company Ltd	abates@southhookgas.com	07787 524 566

List of Tables

Table 1: List of Modification Proposers.....	5
Table 2: Part II Contents Overview.....	7
Table 3: Definitions used in the Modifications	9
Table 4: Comparison table Part 1 of 2.....	14
Table 5: Comparison table Part 2 of 2.....	15
Table 6: 0678 Modifications publication dates.....	17
Table 7: Workgroup 0678 meeting dates.....	17
Table 8: Capacity Weighted Distance: Key Elements and Issues	20
Table 9: Postage Stamp Key Elements and Issues.....	21
Table 10: Workgroup summary of its FCC Methodology review.....	30
Table 11: Compliance Themes.....	49
Table 12: Cost Forecast for WWU.....	87

Table 13: Forecast Revenue Recovery - WWU.....	88
Table 14: Ofgem Regional estimates of typical GB consumer cost to meet allowed revenue (£ Real (2017-18 price base) customer bill per typical domestic consumer)	98
Table 15: Proposed and Recommended Effective Dates by Modification	99
Table 16: Modification basis: CWD or Postage Stamp	108
Table 17: Summary of Proposer's assessments against each Standard Relevant Objectives	109
Table 18: Impact of the Modifications on the Standard Relevant Objectives	111
Table 20: Summary of Proposer's assessment against each Charging Methodology Relevant Objectives	130
Table 21: Impact of the Modifications on the Charging Relevant Objectives	132

List of Figures

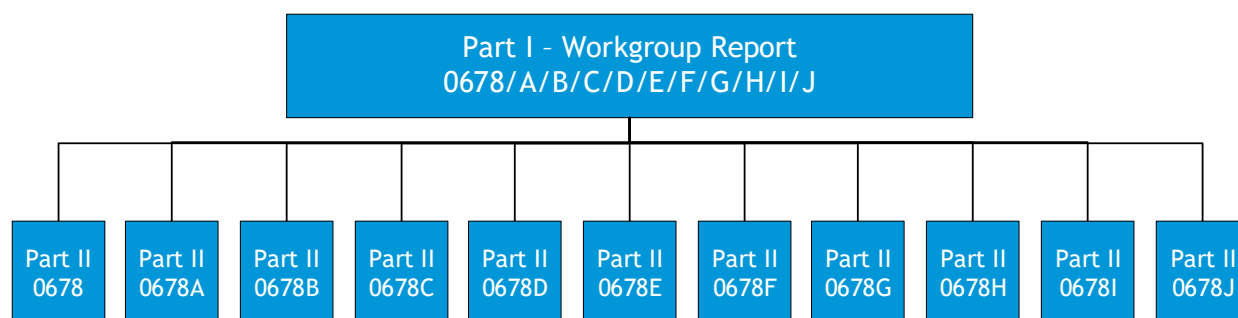
Figure 1: Workgroup Report structure	6
Figure 2: NTS Exit Capacity Cost Forecast - WWU.....	87
Figure 3: Modification 0678 impact on WWU's customer changes for domestic and small Industrial and commercial sector parties.....	88
Figure 4: Modification 0678 impact on WWU's customer changes for an example hospital type customer	89
Figure 5: Modification 0678 impact on WWU's customer changes for an example Power Station type customer.....	89
Figure 6: Correction Term K_t formula.....	90
Figure 7: SGN Cost Forecast - Scotland	91
Figure 8: SGN Allowed Revenue Recovered - Scotland	92
Figure 9: SGN Average Domestic Bill - Scotland	93
Figure 10: SGN Effect on all customer types - Scotland.....	93
Figure 11: SGN Cost Forecast - Southern.....	94
Figure 12: SGN Allowed Revenue Recovered - Southern.....	94
Figure 13: SGN Average Domestic Bill - Southern.....	95
Figure 14: SGN Effect on all customer types - Southern.....	95

1 Report structure and how to use the report

Workgroups have been well attended with wide industry participation. Workgroup has met frequently to develop and discuss these proposals.

It has been necessary to produce this Workgroup Report in a different way to those normally presented by the Joint Office. The Workgroup Report is divided into two parts, **see Figure 1**.

Figure 1: Workgroup Report structure



Part I is the overarching Workgroup Report containing all the key material relating to Modification 0678 and the 10 Alternative Modifications (0678A, 0678B, 0678C, 0678D, 0678E, 0678F, 0678G, 0678H, 0678I, 0678J). The content for this Part comprises the following:

- How to use the report, including navigation.
- Comparison Tables – an ‘at a glance’ comparison of the key elements of Modification 0678 and the Alternative Modifications and how they relate to Ofgem’s views on 0621¹.
- Key Issues – provides Workgroup analysis and views of the key regime changes and differences in the proposed approaches.
- Relevant Objectives – contains the Workgroup assessment on whether and how the Modifications better facilitate the objectives.
- Workgroup Recommendations.
- Definitions, **see Table 3**.

Part II provides an individual Workgroup Report for each Modification containing all the information specific to that Modification. The content of each Part II report comprises all the normal sections of a Modification, **see Table 2**.

Table 2: Part II Contents Overview

Part II Section number	Part II Section Title
1	Summary
2	Governance
3	Why Change?
4	Code Specific Matters
5	Solution
6	Impacts & Other Considerations
7	Relevant Objectives
8	Implementation
9	Legal Text
10	Recommendations
11	Appendix 1

Any analysis submitted by the Proposer has been reviewed by Workgroup and is covered in **Part I Sections 4.13, 4.14 and 4.15**

¹ Ofgem’s Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

Legal Text will be published as a separate document by close of play on 16 April 2019 here:

<http://www.gasgovernance.co.uk/0678/text>

At the time of publication of the Draft Modification Report, National Grid informed the Joint Office that they had not received final agreement from all Proposers for their Legal Text. Workgroup reviewed initial Legal Text at two Workgroup meetings² and was keen to review the final Legal Text for all of the Modifications wherever possible. For further information see **Part I Section 6**.

2 Introduction

National Grid submitted Modification 0678 to the Authority on 17 January 2019 for consideration of Urgency. Ofgem published its decision granting Urgency and agreeing with the proposed timetable on 25 January 2019. The aim of the Modification was to design an amendment to the gas charging regime to better meet the relevant charging objectives and customer/stakeholder provided objectives and deliver compliance with the forthcoming EU Tariff Code (Regulation 2017/460, henceforth known here as TAR NC)³.

Modification 0678 and all of its Alternative Modifications (0678A, 0678B, 0678C, 0678D, 0678E, 0678F, 0678G, 0678H, 0678I and 0678J) aim to replace the current charging methodology, which is based on Long Run Marginal Cost (LRMC).

Amendment to original Urgency timetable

Workgroup 0678 requested a View from the Authority⁴ on 29 January 2019 regarding feasibility of an effective date of 01 October 2019 and the impact of not achieving this on the need for compliance with TAR NC.

The UNC Independent Modification Panel Chair wrote to the Authority on 28 February 2019⁵ requesting consideration of an extension to the Urgency timetable originally agreed by Ofgem on 25 January 2019.

On 08 March 2019 Ofgem granted an extension to the Modification 0678 timetable⁶.

² Workgroup meeting 27 February 2019 and 04 April 2019. Documentation reviewed at these meetings can be found here: www.gasgovernance.co.uk/0678/270219 and www.gasgovernance.co.uk/0678/040419

³ See: 'COMMISSION REGULATION (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas' available here: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.072.01.0029.01.ENG&toc=OJ:L:2017:072:FULL

⁴ Seeking a View from the Authority - UNC Modification Rule 12.8. The topics where a View was requested were:

- The feasibility of achieving 01 October 2019 implementation date,
- The impact of not achieving this date, and
- The requirement to be compliant as soon as possible.

The UNC Modification Rules can be found here: www.gasgovernance.co.uk/general

⁵ UNC Independent Modification Panel Chair letter to the Authority 28 February 2019. This can be found here: www.gasgovernance.co.uk/0678 This letter superseded a request from Workgroup 0678 drafted 27 February requesting assistance from the UNC Modification Panel, to be considered at their meeting on 01 March 2018. This can also be found here: <http://www.gasgovernance.co.uk/0678>

⁶ Ofgem Decision Letter granting an extension to the 0678 timetable 08 March 2019. This can be found here:

Overview of Modifications

Modification 0678 and the 10 Alternative Modifications 0678, 0678B, 0678D, 0678E, 0678F, 0678G and 0678I all propose Capacity Weighted Distance (CWD) as the replacement methodology.

Modifications 0678A, 0678C, 0678H and 0678J propose Postage Stamp (PS) instead.

Whilst the underlying methodology of CWD or PS is proposed across the Modifications, these proposals also include additional charges/aspects that make up the overall charging framework for GB Transportation Charges. These include those charges for managing revenue recovery. These changes may be significant. (For further information regarding System Changes see Section 4.20 Central System Impacts).

Definitions

Table 3 gives a Definition of Terms used in the Modifications. The terms used within Table 3 are taken directly from the Modifications.

Table 3: Definitions used in the Modifications

Term (Abbreviation)	Description	Applicable Modification(s)
Annual Unprotected Quarterly System Entry Capacity Surrender Invitation	<p>An invitation published by National Grid setting out the Reserve Prices for Quarterly System Entry Capacity for the next Gas Year</p> <ul style="list-style-type: none"> The first Invitation will be published as soon as is practicable after the Effective Date In subsequent years publication will be at least four weeks before the publication of the Annual Invitation to Participate in the Auction of Quarterly System Entry Capacity. 	0678F
Capacity Weighted Distance (CWD) Model	<p>The CWD model produces the Transmission Services Reference Prices and, with additional adjustments, produces the Transmission Services Reserve Prices.</p> <p>The CWD approach fundamentally requires three main inputs:</p> <ul style="list-style-type: none"> A revenue value, which will be the target revenue required to be recovered from Transmission Services Charges; A distance matrix for the average connecting distances on the NTS; and A capacity value for each Entry and Exit point that will be the FCC (which is described later in this section). 	0678, 0678A, 0678B, 0678C, 0678D, 0678E, 0678F, 0678G, No 0678H, 0678J
	<p>The CWD approach fundamentally requires three main inputs:</p> <ul style="list-style-type: none"> A revenue value is required, which will be the target revenue required to be recovered from Transmission Services; A distance matrix for the average connecting distances on the NTS; and 	0678I,

	<ul style="list-style-type: none"> A capacity value for each Entry and Exit point that will be the Forecasted Contracted Capacity (FCC) (which is mentioned later in this section). <p>The CWD model produces the Transmission Services Reference Prices and with additional adjustments produces the Transmission Services Reserve Prices.</p>	
Effective Date	<p>The date from which the Modification will take effect being either:</p> <ul style="list-style-type: none"> the first day of the third month following the month in which Ofgem issues its letter directing implementation of this Proposal; or any specific date stipulated by Ofgem in its decision letter 	0678, 0678A, 0678E, 0678F, 0678G, 0678H, 0678J No 0678I (Modification Effective Date)
	The date from which the Modification will take effect as determined by Ofgem.	0678B
	<p>The later of:</p> <ul style="list-style-type: none"> 1st October of any year and charges are published 4 months in advance; and 31 May 2019 	0678C
	<p>The date from which the Modification will take effect being either:</p> <ul style="list-style-type: none"> 01 October 2020; or the first day of the third month following the month in which Ofgem issues its letter directing implementation of this Proposal; or any specific date stipulated by Ofgem in its decision letter. 	0678D
Existing Contracts (ECs)	Arrangements relating to Long Term Entry capacity allocated before 06 April 2017 (Entry into Force of EU Tariff Code)	0678, 0678A, 0678B, 0678D, 0678E, 0678F, 0678G, 0678H
Existing Contracts (ECs) (for the purposes of this Modification)	Arrangements relating to Long Term Entry capacity allocated before 06 April 2017 (Entry into Force of EU Tariff Code)	0678C, 0678I, 0678J
Forecasted Contracted Capacity (FCC)	The capacity input to the RPM that will be used in the Transmission Services capacity charges calculation that will be determined via a CWD methodology. An FCC value is required for every Entry and Exit point.	0678, 0678A, 0678B, 0678D, 0678E, 0678F, 0678G, 0678I
	The capacity input to the RPM that will be used in the Transmission Services capacity charges calculation that will be determined via a PS methodology. An FCC value is required for every Entry and Exit point.	0678C
	The capacity input to the RPM that will be used in the Transmission Services capacity charges calculation that will be determined via a Postage Stamp methodology. An FCC value is required for every Entry and Exit point.	0678H, 0678J
Formula Year	The period of twelve months commencing on 01 April at 05:00 hours;	0678, 0678A, 0678B, 0678C, 0678D, 0678E, 0678F, 0678, 0678H, 0678J

		Not 0678I
Ireland Security Discount	A 95% discount levied on Moffat IP exit tariff for nominated physical supply routes from UK Beach Terminals (as categorised by National Grid), to the Moffat Interconnector via the supply point administration process in UNC TPD Section G/UNC Transition Document.	0678I
Long Run Marginal Costs (LRMC) Model	The current underlying RPM used in the calculation of the Entry and Exit Capacity Prices. Whilst there are different approaches in Entry and Exit as to how secondary adjustments are applied, the underlying LRMC principles are there in both. The LRMC approach is an investment focused methodology where the intention is to have strong locational signals to facilitate decision making. More information is available in TPD Section Y of the UNC.	All Modifications
Modification Direction Date	The day on which the Authority gave its direction to make the Relevant Modification;	0678I
Modification Effective Date (Effective Date)	No earlier than 1 October 2019 (and subsequent to the Modification Direction Date) as the Authority may direct in its direction to make the Relevant Modification, or the subsequent 1st October date if they Modification Direction Date is later than 4 months prior to 1st October;	0678I
Maximum NTS Exit Point Offtake Rate (MNEPOR)	The rate attributed at each site currently used for the calculation of the NTS Optional Commodity Rate.	0678D
Multipliers	The factor applied to the respective proportion (runtime) of the Reference Price to calculate the Reserve Price for non-yearly standard capacity product.	0678, 0678A, 0678B, 0678C, 0678D, 0678G, 0678H, 0678I, 0678J
	The factor applied to the respective proportion (runtime) of the Base Reference Price to calculate the Reference Price for non-yearly standard capacity product.	0678E, 0678F
Network Distances (for the purposes of modelling in the RPM)	A matrix of distances used in the RPM that are the pipeline distances on the NTS.	All Modifications
Non-Transmission Services	The regulated services other than transmission services and other than services regulated by Regulation (EU) No 312/2014 that are provided by the transmission system operator.	All Modifications
Non-Transmission Services Revenue	The part of the allowed or target revenue which is recovered by non-transmission tariffs.	All Modifications
NTS Optional Capacity Charge (OCC)	Price for a capacity product for firm capacity applicable at qualifying entry and exit points in accordance with the OCC Methodology Statement. Note it is intended that Methodology Statement will be presented to Panel at the same time as completion of the Draft Workgroup Report.	0678D, 0678G
NTS Optional Capacity Charge	Price for a capacity product for firm capacity applicable at qualifying entry and exit points in accordance with the OCC Methodology.	0678H
	Price for a capacity product for firm capacity applicable at qualifying entry and exit points in accordance with the OCC Methodology Statement. Note it is intended that	0678J

	Methodology Statement will be presented to Panel at the same time as completion of the Draft Workgroup Report.	
Postage Stamp (PS)	A capacity value for each Entry and Exit point that will be the Forecasted Contracted Capacity (FCC) (which is mentioned later in this section). The PS model produces the Transmission Services Reference Prices and with additional adjustments produces the Transmission Services Reserve Prices.	0678C
Postage Stamp (PS) Model	The PS approach fundamentally requires two main inputs: <ul style="list-style-type: none"> A revenue value is required, which will be the target revenue required to be recovered from Transmission Services; A capacity value for each Entry and Exit point that will be the Forecasted Contracted Capacity (FCC) (which is mentioned later in this section). These are applied in aggregate The PS model produces the Transmission Services Reference Prices and with additional adjustments produces the Transmission Services Reserve Prices.	0678H, 0678J
Reference Price	Price for a capacity product for firm capacity with a duration of one year, which is applicable at entry and exit points and which is used to set capacity based transmission tariffs. This will be produced in p/kWh/a (pence per kWh per annum).	All Modifications
Reference Price Methodology (RPM)	The methodology applied to the part of the transmission service revenue to be recovered from capacity based transmission tariffs with the aim of deriving Reference Prices. Applied to all entry and exit points in a system. The RPM therefore is the framework to spread certain costs / revenues (relevant to the methodology in place) to the Entry and Exit points and thereby on to network users.	All Modifications
Reserve Price	Reserve Price for Yearly standard capacity = the Reference Price Reserve Price for Non- yearly standard capacity is calculated by applying any Multipliers (if applicable). This will be produced in p/kWh/d (pence per kWh per day).	All Modifications
Surrendered Unprotected Entry Capacity Contracts	Unprotected Entry Capacity Contracts which have been surrendered by Users.	0678F
Target Revenue	This is the revenue required to be recovered from a particular set of charges.	All Modifications
Transmission Services	The regulated services that are provided by the transmission system operator within the entry-exit system for the purpose of transmission.	All Modifications
Transmission Services Revenue	The part of the allowed or target revenue which is recovered by transmission tariffs.	All Modifications
Transportation Statement	The statement containing the Gas Transmission Transportation Charges applicable for a specified period.	0678, 0678A, 0678B, 0678D, 0678E, 0678F, 0678G, 0678H
	The Transportation Statement containing the Gas Transmission Transportation Charges.	0678C, 0678I, 0678J

Unprotected Entry Capacity Contracts	Arrangements relating to Long Term Entry capacity allocated between 12 February 2018 and 20 December 2018.	0678F
Wheeling	A Transmission Services charge allowing the transportation of gas from one entry point to an exit point across 0 km distance as defined in Annex A of the FCC Methodology statement. The respective entry and exit points that qualify for wheeling will be referred to as the Specified Entry Point and the Specified Exit point in this context. The Wheeling Charge will be updated as outlined in the NTS Optional Wheeling Charge methodology.	0678I
(Intentionally blank)		

3 Comparison table: Differences between each of the 0678 Modifications

A Comparison Table was developed by National Grid to show the differences between Modification 0678 and the Alternatives 0678A/B/C/D/E/F/G/H/I/J. Blue cells show variation in treatment of that element from UNC Modification 0678. Workgroup thanked National Grid for its work to provide and maintain this useful table.

This can be found at: <http://www.gasgovernance.co.uk/0678/Comparison>

A copy of this table is also included below see Tables 4 and 5. Note: The table is presented in two halves for legibility.

Table 4: Comparison table Part 1 of 2

UNC Modification Proposals 0678 and Alternatives: Comparison of Key Elements

			0678	0678A	0678B	0678C	0678D	0678E	0678F	0678G	0678H	0678I	0678J
			v4.0 (20/3/2019)	v3.0 (21/3/2019)	v3.0 (20/3/2019)	v5.0 (4/4/2019)	v5.0 (10/4/2019)	v3.0 (3/4/2019)	v4.0 (9/4/2019)	v4.0 (5/4/2019)	v5.0 (9/4/2019)	v6.0 (10/4/2019)	v3.0 (10/4/2019)
Component	Element		National Grid	RWE Supply & Trading GmbH	Centrica	SSE	ENI	Gateway LNG Company	Storengy UK	Vitol SA Geneva	EP UK Investments	Gazprom Marketing & Trading	South Hook Gas Company
Capacity Reference Price	Reference Price Methodology		Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Postage stamp model with adjustment to minimise Revenue Recovery, CWD as counterfactual	Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Postage stamp model with adjustment to minimise Revenue Recovery	Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Postage stamp model with adjustment to minimise Revenue Recovery	Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Postage stamp model with adjustment to minimise Revenue Recovery
	Target Revenue		Net of Existing Contracts	Net of Existing Contracts	Net of Existing Contracts	Net of Existing Contracts	Net of Existing Contracts	Net of Existing Contracts	Net of Existing Contracts	Net of Existing Contracts	Net of Existing Contracts	Net of Existing Contracts	Net of Existing Contracts
	Treatment of zero Reference Prices		Uses Weighted Average Distance to determine price using nearest non-zero Reference Priced Entry or Exit Point's WAD.	Uses postage stamp prices for entry/exit.	Uses Weighted Average Distance to determine price using nearest non-zero Reference Priced Entry or Exit Point's WAD.	Uses postage stamp prices for entry/exit.	Uses Weighted Average Distance to determine price using nearest non-zero Reference Priced Entry or Exit Point's WAD.	Uses Weighted Average Distance to determine price using nearest non-zero Reference Priced Entry or Exit Point's WAD.	Uses Weighted Average Distance to determine price using nearest non-zero Reference Priced Entry or Exit Point's WAD.	Uses Weighted Average Distance to determine price using nearest non-zero Reference Priced Entry or Exit Point's WAD.	Uses postage stamp prices for entry/exit.	Uses Weighted Average Distance to determine price using nearest non-zero Reference Priced Entry or Exit Point's WAD.	Uses postage stamp prices for entry/exit.
Forecasted Contracted Capacity (FCC)	Methodology arrangements		National Grid Forecast (excluding Existing Contract capacity). Methodology not in UNC	National Grid Forecast (excluding Existing Contract capacity). Methodology referenced in UNC. Review process under the UNC. Additional information publication requirements (TAR Art 30)	National Grid Forecast. Methodology in UNC	National Grid Forecast. Methodology in UNC	National Grid Forecast (excluding Existing Contract capacity). Methodology not in UNC	National Grid Forecast (excluding Existing Contract capacity). Methodology not in UNC	National Grid Forecast (excluding Existing Contract capacity). Methodology not in UNC	National Grid Forecast (excluding Existing Contract capacity). Methodology not in UNC	National Grid Forecast (excluding Existing Contract capacity). Methodology not in UNC	National Grid Forecast (excluding Existing Contract capacity). Methodology not in UNC. Includes eligible sites for Wheeling Charge. Methodology change limit (once every 4 years)	National Grid Forecast (excluding Existing Contract capacity). Methodology not in UNC
Reserve Price - Firm and Interruptible	Multiplier (Annual Capacity Product)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Multiplier (Quarterly Capacity Product)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Multiplier (Monthly Capacity Product)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Multiplier (Daily Capacity Product)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	Interruptible / Off-peak adjustment (entry)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
	Interruptible / Off-peak adjustment (exit)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
	Interruptible /off-peak adjustments from Year 2 onwards	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
	Fixed or floating price	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating
Reserve Price - Specific Capacity Discounts	Storage	50%	50%	50%	80%	50%	80%	80%	50%	50%	50%	50%	50%
	LNG	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Ireland Security Discount	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	95%	N/A	N/A
	Minimum Reserve Price	0.0001p/kWh/d	0.0001p/kWh/d	0.0001p/kWh/d except the Optional Capacity Charge which is 0.000001p/kWh/d	0.0001p/kWh/d	0.0001p/kWh/d	0.0001p/kWh/d	0.0001p/kWh/d	0.0001p/kWh/d	0.0001p/kWh/d	0.0001p/kWh/d	0.0001p/kWh/d	0.0001p/kWh/d
Revenue Recovery Charges	Application		Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)
	Exclusions		Existing Contracts	Existing Contracts	Existing Contracts	Storage Connection Point capacity (except where booked for own use purposes)	Existing Contracts	Storage Connection Point capacity	Storage Connection Point capacity	Existing Contracts for capacity at Storage Connection Points	Existing Contracts for capacity at Storage Connection Points	Existing Contracts	Existing Contracts
	Change frequency		At any point in Gas Year with notice	At any point in Gas Year with notice	At any point in Gas Year with notice	At any point in Gas Year with notice	At any point in Gas Year with notice	At any point in Gas Year with notice	At any point in Gas Year with notice	At any point in Gas Year with notice	At any point in Gas Year with notice	At any point in Gas Year with notice	At any point in Gas Year with notice
	Status of 'Existing Contract'		Lost if traded post 5/4/17	Lost if traded post 5/4/17	Lost if traded post 5/4/17	N/A	Lost if traded post 5/4/17	N/A	N/A	Lost if traded post 5/4/17	Lost if traded post 5/4/17	Lost if traded post 5/4/17	Lost if traded post 5/4/17

Table 5: Comparison table Part 2 of 2

			0678	0678A	0678B	0678C	0678D	0678E	0678F	0678G	0678H	0678I	0678J	
			v4.0 (20/3/2019)	v3.0 (21/3/2019)	v3.0 (20/3/2019)	v5.0 (4/4/2019)	v5.0 (10/4/2019)	v3.0 (3/4/2019)	v4.0 (9/4/2019)	v4.0 (5/4/2019)	v5.0 (9/4/2019)	v6.0 (10/4/2019)	v3.0 (10/4/2019)	
	Component	Element	National Grid	RWE Supply & Trading GmbH	Centrica	SSE	ENI	Gateway LNG Company	Storengy UK	Vitol SA Geneva	EP UK Investments	Gazprom Marketing & Trading	South Hook Gas Company	
Transmission Services Charges	NTS Optional Charge	Method (rate derivation)	N/A	N/A	Reserve Prices established with reference to the ratios of the straight-line entry-exit distance to entry and exit CWD values, and the application of a "System Utilisation Factor"	N/A	Existing OCR formula adjusted by RPI, cost base subject to annual CPI adjustment. Rate converted to a capacity charge using FCC	N/A	N/A	Existing OCR formula adjusted by RPI, cost base subject to annual CPI adjustment. Rate converted to a capacity charge using FCC	Existing OCR formula adjusted by RPI, cost base subject to annual CPI adjustment. Rate converted to a capacity charge using FCC	Wheeling Charge': existing OCR formula adjusted by RPI, cost base subject to annual CPI adjustment	Existing OCR formula adjusted by RPI, cost base subject to annual CPI adjustment. Rate converted to a capacity charge using FCC	
		Eligible Quantity	N/A	N/A	Minimum of firm capacity entitlement and allocation (flow) at relevant entry point and exit point = "Applicable Quantity"	N/A	Lesser of capacity and allocation (flow) at entry point and exit point. Annual reconciliation where actual bookings are less than FCC	N/A	N/A	Lesser of capacity and allocation (flow) at entry point and exit point. Annual reconciliation where actual bookings are less than FCC	Lesser of capacity and allocation (flow) at entry point and exit point. Annual reconciliation where actual bookings are less than FCC	Lesser of capacity and allocation (flow) at entry point and exit point. Annual reconciliation where actual bookings are less than FCC	Lesser of capacity and allocation (flow) at entry point and exit point. Annual reconciliation where actual bookings are less than FCC	
		Alternative charges	N/A	N/A	Standard Transmission Services Capacity charge and General Non-Transmission Services charges	N/A	Standard Transmission Services Capacity charge and General Non-Transmission Services charges	N/A	N/A	Standard Transmission Services capacity charge and General Non-Transmission Services charges	Standard Transmission Services capacity charge and General Non-Transmission Services charges	Standard Transmission Services Capacity charge, General Non-Transmission Services charges and Revenue Recovery Charges	Standard Transmission Services capacity charge and General Non-Transmission Services charges	
		Limitations	N/A	N/A	Not available for Storage Connection Points nor DN Offtakes, minimum distance 0.1km	N/A	Not available for Storage Connection Points nor DN Offtakes	N/A	N/A	Not available for Storage Connection Points nor DN Offtakes	Not available for Storage Connection Points nor DN Offtakes	Only available to Entry and Exit Points at the same location	Not available for Storage Connection Points nor DN Offtakes	
		Application at Bacton ASEPs	N/A	N/A	Pro-rata rules for identification of eligible quantities	N/A	No specific provision	N/A	N/A	No specific provision	No specific provision	No specific provision	No specific provision	
	"K"	Application	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	
Non-Transmission Services Charges	St. Fergus Compression	Application	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	
	NTS Metering	Application	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	
	DN Pensions Deficit	Application	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	
	SSMP Administration	Application	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	
	IP Allocation	Application	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	
	Entry and Exit Charges	Application	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	Allocation (flow) based charge to recover residual Non-transmission services revenue, except non-own-use at storage	
		"K"	Application	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles
	Publication of variables	Multipliers	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement
		Interruptible Adjustment	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement
		UNG Discount	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement	Transportation Statement
CWD Distances		Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	
General	FCCs	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model	Charging Model. Published a minimum of one month ahead of the tariff period	
		Unprotected Capacity (allocated 2/18 to 12/18)	No additional rights proposed	No additional rights proposed	No additional rights proposed	No additional rights proposed	No additional rights proposed	No additional rights proposed	No additional rights proposed	User may surrender all or part where floating reserve Price is >5% of that at allocation	No additional rights proposed	No additional rights proposed	No additional rights proposed	No additional rights proposed
	Publication of Reserve Prices	NTS Entry Capacity - OSEC (Unprotected Capacity)	No proposed obligations	No proposed obligations	No proposed obligations	No proposed obligations	No proposed obligations	No proposed obligations	No proposed obligations	Additional indicative and final notices of Reserve and step prices	No proposed obligations	No proposed obligations	No proposed obligations	No proposed obligations
	Implementation	Effective Date	First day of third month following decision date (or as determined by Ofgem)	First day of third month following decision date (or as determined by Ofgem)	A date directed by Ofgem	1 October in a year (with at least 4 months notice)	First day of third month following decision date (or as determined by Ofgem)	First day of third month following decision date (or as determined by Ofgem)	First day of third month following decision date (or as determined by Ofgem)	First day of third month following decision date (or as determined by Ofgem)	First day of third month following decision date (or as determined by Ofgem)	First day of third month following decision date (or as determined by Ofgem)	1 October in a year (with at least 4 months notice)	First day of third month following decision date (or as determined by Ofgem)
Variation in treatment of element from UNC Modification Proposal 0678														

4 Workgroup Impact Assessment

Workgroup assessed the impact of the eleven Modifications by first examining the base methodologies used (Capacity Weighted Distance or Postage Stamp, see **Sections 4.1 and 4.2**) and then addressing each of the additional features (**Sections 4.3 to 4.9**). Workgroup assessed compliance with TAR NC and whether the Modifications address the comments in Ofgem's Decision Letter on Modification 0621⁷. Workgroup provided, where appropriate, commentary on any rationale given by Proposers. In Section 5 the Report captures Workgroup Participants' views on the issues and any impacts on the Relevant Objectives.

4.1. Approach

The eleven 0678 Modifications were published as shown in **Table 6**. Each Alternative was considered by Panel at various meetings, both scheduled and extraordinary. Panel Members noted Ofgem's Decision Letter granting urgency for Modification 0678 on 25 January 2019⁸. Ofgem noted that potential Alternatives should be well formed, properly considered and brought forward in a timely manner; supporting evidence should be included. Ofgem urged Proposers to act responsibly in this regard in order to ensure GB compliance with TAR NC.

Key timetables⁹ relating to Workgroup 0678 were defined in the following documents which can all be found on the Modification 0678 webpage.

- Ofgem Decision Letter granting urgency for Modification 0678 (25 January 2019);
- Ofgem Decision by email – Instruction to renumber 0679 to 0678A (31 January 2019);
- Ofgem Decision Letter granting extension of 0678 Timetable (08 March 2019).

⁷ Ofgem's Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

⁸ The Ofgem Decision letter granting Urgency for 0678 can be found here: www.gasgovernance.co.uk/0678/

⁹ All relevant documentation for the 0678 Modifications can be found here: www.gasgovernance.co.uk/0678/

Table 6: 0678 Modifications publication dates

Modification	v1.0	v2.0	v3.0	v4.0	V5.0	V6.0
0678	17-Jan-19	25-Feb-19	15-Mar-19	21-Mar 19		
0678A	28-Jan-19	26-Feb-19	21-Mar-19			
0678B	06-Feb-19	04-Mar-19	20-Mar-19			
0678C	15-Feb-19	22-Feb-19	28-Feb-19	21-Mar-19	04-Apr-19	
0678D	20-Feb-19	22-Mar-19	27-Mar-19	29-Mar-19	10-Apr-19	
0678E	20-Feb-19	21-Mar-19	03-Apr-19			
0678F	22-Feb-19	21-Mar-19	03-Apr-19	09-Apr-19		
0678G	26-Feb-19	21-Mar-19	03-Apr-19	05-Apr-19		
0678H	27-Feb-19	22-Mar-19	03-Apr-19	05-Apr-19	09-Apr-19	
0678I	27-Feb-19	22-Mar-19	27-Mar-19	28-Mar-19	08-Apr-19	10-Apr-19
0678J	19-Mar-19	05-Apr-19	10-Apr-19			

Workgroup meetings took place as follows in **Table 7: Workgroup 0678 Meeting Dates**¹⁰

Table 7: Workgroup 0678 meeting dates

First series of Workgroup 0678 meeting dates	Second series of Workgroup 0678 meeting dates
29 January	25 March POSTPONED TO 03 APRIL
31 January	28 March
05 February (NTSCMF ¹¹)	02 April (NTSCMF)
11 February	03 April
13 February (postponed)	04 April
14 February	08 April
18 February	10 April
20 February	

¹⁰ Meeting dates in bold indicate that the meetings were added to the timetable originally included in Modification 0678 v1.0.

¹¹ Joint Office was able to schedule Workgroup 0678 meetings immediately after the NTSCMF meetings in February, March and April.

25 February	
26 February	
27 February	
28 February	
04 March	
05 March (NTSCMF)	
06 March	

At various points in the first set of Workgroup meetings, between 29 January and 06 March 2019, Workgroup expressed deep concern at the lack of availability of analysis data and documentation from National Grid. In particular, Workgroup were disappointed that both the FCC Methodology Statement and a final version of Modification 0678 had not been delivered by 06 March 2019.

Ofgem granted an extension to the 0678 timetable on 08 March 2019. This allowed the following documentation to be completed:

- FCC Methodology Statement with the governance framework in Modification 0678 v3.0
- Final Modification 0678 including full accompanying analysis
- Legal text for Modification 0678 and
- Sensitivity Tool for 0678 v3.1.

In turn, this enabled Proposers of Alternative Modifications to amend their own Modifications in response, and gave time to also further update/complete their:

- TAR NC Final Compliance Assessment
- Supporting Analysis
- Specific commentary for inclusion within the Workgroup Report
- Commentary relating to Ofgem's Decision Letter on Modification 0621¹².

Data in **Table 6** reflects where the Alternatives were modified as a result of the above. Modification 0678J was also raised during the adjournment.

Ofgem in its Decision Letter granting an extension to the 0678 Timetable on 08 March 2019 also requested that National Grid carry out 'A Review of Existing Contracts'. This was due on 15 March 2019. It was published on 08 April 2019¹³

The information regarding the Existing Contracts assessment was published later than the timetable requested.

National Grid sought external assessment on this topic using external consultants. In order to allow for this, further additional time was necessary to produce this assessment which meant that it could not be delivered in time for 15 March 2019. The resulting report was subsequently made available to industry on 08 April 2019. Workgroup had limited discussion within the Workgroup meeting on 10 April 2019 and some early views are captured in this Workgroup Report. Along with a short National Grid overview

¹² Ofgem's Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

¹³ Existing Contracts review work by National Grid (with input from Baringa) can be found here: www.gasgovernance.co.uk/0678/analysis

regarding Existing Contracts, the resulting Existing Contracts report is available for stakeholders to comment on and provide additional responses and thoughts during the consultation period. These documents are available on the Joint Office website: www.gasgovernance.co.uk/0678/Analysis.

A Workgroup Participant highlighted that there may be a need for further Alternatives following review of the FCC Methodology, if it was determined that they were in the interests of the consumer.

A Workgroup Participant also wished to highlight that in their opinion the list of documents provided by National Grid was not conclusive and that some Proposers may require additional input from National Grid.

The Proposer of 0678I highlighted that National Grid assistance may be required in relation to commercially sensitive OCC information and there may be a request for additional commercially sensitive information be provided to Ofgem, as was the case previously for Modification 0636.

Production of Analysis by parties other than National Grid

National Grid stated that it would produce a sensitivity model for Modification 0678 only and a summary of data outputs for industry to use from this model. National Grid highlighted that it would be the responsibility of each Proposer to develop a sensitivity model and any analysis to support their individual Proposal. Where this may require information that the Proposer does not have access to, for example commercially sensitive information, such as Optional Commodity information, National Grid confirmed it would work with each Proposer to support in this respect where it was needed. Additionally, National Grid indicated it would be able to support each Proposer, as they developed any tools and produced any analysis, where requested. National Grid confirmed the responsibility for provision of supporting analysis for Alternative Modification Proposals remained with the Proposers.

Workgroup Participants noted that if Proposers of Alternatives produce indicative charges generated for their Modification, it removes the objectivity which National Grid would potentially provide.

Impacts on customers

Workgroup Participants noted that Impacts on Customers would be covered in the Workgroup Report (**Sections 4.13 - Impact Analysis, Section 4.14 - Consumer Impacts and Section 4.14 - DN impact**).

Workgroup Participants stated that they would also expect any impacts on customers to be fully analysed by Ofgem in their Regulatory Impact Assessment.

Ofgem input

Ofgem stated they would prepare for a Regulatory Impact Assessment (RIA). A decision relating to the need for a Regulatory Impact Assessment would be made following receipt of the Final Modification Report.

In their decision letter on Urgency for 0678, Ofgem stated that:

Chapters II, III and IV of TAR NC that relate to Reference Price Methodologies ("RPM"), Reserve Prices and Reconciliation of Revenue respectively, shall apply from 31 May 2019.

Some Workgroup Participants recognised this is likely to be after 31 May 2019, since Ofgem would likely need to come to a minded-to decision possibly involving an RIA, and given TAR NC requirements for 2 months consultation, followed by 2 months for ACER feedback, followed by Ofgem's final decision.

Workgroup noted that a notice period for advising of prices is required. Ofgem advised it will decide on this at a later point.

Some Workgroup Participants asked if the date from which charges take effect could be 01 October 2020, noting that contracts tend to start at the start of a Gas Year.

Comparison of Capacity Weighted Distance and Postage Stamp

Workgroup noted that Ofgem said in its rejection letter for Modification 0621¹⁴ that:

“... both Postage Stamp and CWD are better approaches to the recovery of network costs than the status quo. This is because all Users who benefit from access to a safe reliable flexible gas transmission network would more equally share the costs of the network in proportion to their ability to use it.”

Noting Ofgem’s statement on Postage Stamp and CWD, the Workgroup chose to highlight below the key elements of the two highlighted approaches alongside what they believed to be the issue with both. The tables below (**Tables 8 and 9**) are a presentation of those discussions.

Table 8: Capacity Weighted Distance: Key Elements and Issues

Capacity Weighted Distance
<p>Key Elements</p> <ul style="list-style-type: none"> Capacity Weighted Distance uses capacity and distance in combination which more closely reflects the TAR NC Article 8 counterfactual. It allocated revenue on the above basis. Three fundamentals are combined: Forecasted Contracted Capacity, Allowed Revenue and the average distance between Entry and Exit points. Article 4.1 of TAR NC recognises that distance is a cost driver for transmission services alongside technical or forecasted contracted capacity. The assumption is made that gas can from to/from every Entry Point to every Exit Point. Capacity Weighted Distance retains a locational signal. Distances are the average shortest network path between all Entry and Exit Points because it is not a flow-based model.
<p>Issues</p> <ul style="list-style-type: none"> Most points at the extremities of the network, have higher charges than those in the relative centre (and those derived in the Long Run Marginal Cost LRM). This is due to the methodology which does not reflect proximity to the nearest entry point. Ofgem have identified an issue for consumers in their 0621 Decision Letter¹⁵ relating to higher costs for consumers located in more remote locations. The locational signal may have behavioural consequences which are unlikely to provide any short term cost savings and could distort investment signals Distances are averaged which does not reflect physical flows on the network. Forward looking investment signals are not provided in CWD.

¹⁴ Ofgem’s Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

¹⁵ Ofgem’s Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

Table 9: Postage Stamp Key Elements and Issues

Postage Stamp
<p>Key Elements</p> <ul style="list-style-type: none"> • Postage Stamp uses Forecasted Contracted Capacity and allocates Allowed Revenue on this basis. • All prices at Entry Points are uniform. • All prices at Exit Points are uniform. • Postage Stamp does not produce a locational signal. • Postage Stamp is not designed to be cost reflective, rather it is aimed at cost recovery. • Postage Stamp is a simpler methodology than LRMC and CWD. • Postage Stamp is broadly consistent with the ongoing Electricity TCR – only for the treatment of residual charges and the recovery of historical sunk costs¹⁶.
<p>Issues</p> <ul style="list-style-type: none"> • Without locational signals, customers have no incentives as to where to locate efficiently, with respect to costs they would impose on the network, specifically power stations (taking into account Electricity Charging is locational and could be inconsistent)¹⁷. • Postage Stamp is not designed to give locational signals. • Forward looking investment signals are not provided in Postage Stamp.

After consideration of the key elements and issues for Postage Stamp and CWD, Workgroup then chose to highlight below the additional elements to either CWD or PS which are contained with Modifications 0678A-J. These are:

- Adjustment to minimise Revenue Recovery
- Treatment of Existing Contracts
- Optional charging arrangements (two base methods with variations plus a Wheeling charge)
- Specific Capacity Discounts (two values for Storage, Ireland Security Discount)
- Change frequencies for various values and elements
- Governance of FCC Methodology
- Capacity Surrender for Specified Unprotected Capacity
- Publication of charges arrangements
- Implementation arrangements.

Further details of which additional elements are contained within the various Modifications can be found in the details of the individual Modifications, given in **Part II** of this report. The reader may also find it useful to refer to the comparison table within **Section 3** and also available here:

www.gasgovernance.co.uk/0678/Comparison.

¹⁶ National Grid confirmed Allowed Revenue comprises past and future cost.

¹⁷ Workgroup noted that consideration of any similarities or otherwise with the Electricity Charging regime is a consideration of Ofgem, though it is not a UNC Relevant Objective.

4.2. Integration of RPM, FCC, Revenue Recovery and Existing Contracts

When analysing all of the 0678 Modifications, Workgroup discussion focussed on the interactions between the RPM, FCC, Revenue Recovery and Existing Contracts. Within the Workgroup there were a wide variety of views held by Workgroup Participants.

Some Workgroup Participants questioned the need for such a complex method of calculating prices. In particular, they highlighted the need for a second calculation run to adjust reference prices to cater for anticipated revenue under recovery arising from Storage and interruptible capacity discounts.

Proposers of Modifications were asked to consider providing more clarity as to how they determined the method they have applied.

Some Workgroup Participants challenged the implementation of CWD in this way, highlighting concerns relating to distortion grounds, since they felt it was a revenue recovery reference price adjustment being recovered through geographically different charges rather than a flat ('postalised') approach, noting that this is currently done at Exit.

Proposers of all Modifications clarified that their Modifications all calculate in a similar manner an adjustment within the RPM for the anticipated shortfall of interruptible and storage discounts (and in the case of Modifications 0678B, 0678D, 0678G, 0678H, 0678I and 0678J, any anticipated under recovery from the application of the Optional Capacity Charge, Wheeling Charge and Ireland Security Discount) Workgroup clarified that this is effectively re-scaling (Article 6.4c). However, the impact for CWD and PS methodologies is different.

The Workgroup considered the current arrangements, the principle drivers, tariff year modelling, allowed revenue and netting-off of allowed revenue for existing contracts.

Some Workgroup Participants believed there would be some distortion in charges between contract prices and "new" capacity prices as a result of netting-off allowed revenue for existing contracts. It was noted that the TAR NC does not cover how to treat existing contracts within the RPM. Consideration needs to be given to the interaction between under recovery of costs and the revenue recovery approach.

4.3. Forecasted Contracted Capacity

The topic of Forecasted Contracted Capacity was discussed at length by the Workgroup on a number of occasions. The discussions held are summarised, by date below. An FCC Methodology Statement has been formulated by National Grid.

In relation to the initial urgent timescale agreed by Ofgem, and during Workgroup meetings between 29 January and 06 March, the Workgroup expressed their deep concern and disappointment that National Grid had not provided a fully documented FCC Methodology.

The purpose of the FCC Methodology is to determine a forecast of capacity bookings that will be used in calculating the capacity reference / reserve prices. Recognising the likelihood of behavioural changes, it is important to put forward a Methodology that could take into account multiple data items and take into account some additional logic regarding the resulting FCC values. (For the avoidance of doubt, Forecasted Contracted Capacity is the same as Forecast Contracted Capacity; please note the latter is used in Legal Text drafting). The Methodology, whether in the UNC or not, proposes a process that can be followed and provides, in National Grid's view, a solid foundation for the new gas charging regime start from. It can be reviewed and updated over time.

Some Workgroup Participants stated that the design of the FCC Methodology, in their view, is the most fundamental element of creating charges. This is due to the fact that the FCC is deemed to be the denominator for how Transmission revenue is smeared across those putting gas on and taking it off the Transmission system, particularly under CWD. Therefore, the distribution arising from the use of the FCC needs to be fair and equitable and in the interest of consumers.

Other Workgroup Participants noted that fair and equitable must be defined. Further, they wished to have noted that in their view an accurate and predictable FCC delivers predictable charges.

It was noted that the FCC, the assumptions that accompany it, and the justification for the parameters used all have to be consulted on under Article 26 of TAR NC and published under Article 30 prior to the tariff period. As such there is an obligation to provide some justified principles and reasoning as to why the FCC values chosen are appropriate for the respective modification proposal.

The Workgroup noted that the initial Forecasted Contracted Capacity (FCC) was provided with the sensitivity tool on 21 February 2019, published on 25 February 2019, with a single set of FCC values for each year along with the methodology to derive it.

Some Workgroup Participants wished to have more clarity on the options available in relation to incorporating PARCA Reservations and new sites, further noting that PARCA should be considered as enduring contracts within the proposed FCC methodology.

Some concern was expressed about the possible variations in relation to the principles on which the FCC Methodology should be based. Some Workgroups Participants stated that the principles should be a fair and equitable distribution of costs for users.

For the avoidance of doubt, Workgroup clarified on 10 April 2019 that main principle for the FCC Methodology should be that the forecast should be as accurate as possible.

Some Workgroups Participants stated that there were a number of options that could be considered. For example, quantity booked, quantity paid for and quantity flowed against. The Workgroup asked National Grid to provide further clarity on the Principles and how these would be applied, within the Methodology.

The Workgroup also wanted to understand the timing for the provision of the Methodology, with some expressing the view that it should be set out in the Uniform Network Code. Some Workgroup Participants expressed concern about the timing of the visibility of the FCC values. Workgroup Participants were concerned that the late arrival of the FCC values did not allow time for an appropriate impact assessment. National Grid stated that it expected the methodology to accompany the UNC consultation (which according to the timetable should begin on 08 March 2019), along with clarification on the approach.

Some Workgroup Participants believed that further clarification was required on forecasting flows, along with actual data to date, which could be utilised to demonstrate the accuracy of previous forecasts. The Workgroup recognised that there is opportunity for error. The Workgroup wanted to understand the size of the potential error/tolerance in historical forecasts of flows.

A Workgroup Participant suggested Shipper inputs into flows should be required. Inputs and contributions were invited from any workgroup Participant.

National Grid was concerned about the flexibility and change governance with tying wholly into the UNC, as it was anticipated yearly changes may be required to enable periodic reviews. Some Workgroup Participants expressed concern with the level of control and visibility for change. It was

noted by some that any forecast will have a degree of error and having a methodology statement may be preferable initially over an approach in the UNC.

A Workgroup Participant expressed concern about not having the FCC methodology (as at 31 January 2019) and that this could hinder the development and assessment of potential Alternatives.

In relation to the governance arrangements to support an FCC methodology, Ofgem confirmed that there would need to be suitable justification for any Ofgem involvement.

A Workgroup Participant said the design of FCC is the most fundamental element of creating charges as it is the denominator of how Transmission revenue is smeared across those putting gas on and taking off the Transmission system, particularly under CWD. It therefore needs to be a fair and equitable distribution in the interest of consumers.

When considering an approach that could be applied using forecast and historical data sets it was considered by National Grid that it was appropriate to use a range of values. The approach uses a range values to provide an extensive data set to use and apply the methodology to.

National Grid further confirmed that where it uses a range of values it will take the 'greatest of' approach. This is due to the nature of the inputs. They are essentially using either flows or capacity values. If flows may exceed capacity then use flows, and if capacity (from non-zero priced) exceeds flows then use this. This means always aiming to set based on the highest expected commitment. To illustrate this, for setting an FCC for Gas Year Y:

- Under the proposed regime of Modification 0678 there are no zero prices (i.e. no 100% discounts for capacity). Therefore, one assumption made is that if reviewing historically bought capacity then it should not use any capacity procured for free. The direct comparison is that if the payable price was greater than zero then the User is comfortable with the liability to this level as it would be assumed to be needed and therefore the User would continue the same approach (even if greater than flows). Where there is a zero liability the same assumption of only procuring, what may be "needed" is less applicable as overbooking is possible without additional liability. The result of this is that the non-zero priced capacity for a given year (Y-2) is used.
- To manage a scenario where flows could be higher than historical capacity, historical flows for a given year (Y-2) is also an input and if higher than non-zero priced capacity it will use the higher.
- To also use the forecast of supply and demand, this reviews a point specific basis and is based on National Grid's shorter term view (up to 5 years) of supply and demand of gas year Y. This will bring in the forecast element and compare to the historical values above.
- Where relevant PARCA Values are also used for the Gas Year Y, if at stage 2.
- For Entry, known long term Entry Contracts (Existing Contracts) are also an input for gas year Y.
- For GDN offtakes only it will use only one approach which is based on the known non-zero priced capacity in Y-1, when pricing Gas Year Y. This input is not used for other offtakes.

To manage the requirement that the methodology may not be as relevant for some points in some circumstances, there is an Exception rule that permits National Grid to apply discretion on the FCC value with a requirement to provide reasoning where the methodology may not have been followed.

Ofgem veto for proposed changes to FCC Methodology 06 March 2019

Workgroup Participants noted that draft Modification 0678 v3 enables Ofgem to veto proposed changes to the FCC Methodology and questions whether such an obligation can be put on Ofgem via the UNC. Workgroup Participants suggested this may be better placed in Section 3 of the Modification.

Below, by date order, is a synopsis of Workgroup discussions related the development of the FCC Methodology.

11 February 2018

A sensitivity tool (spreadsheet) for analysis of Modification 0678 from National Grid was published on Saturday 09 February 2019.

As at 11 February 2018, National Grid had not written the FCC Methodology. As such Workgroup discussed the information given. This was an initial approach to the FCC methodology.

National Grid noted that the FCC is not defined in TAR NC. The values to be used are a hybrid of historical (preceding year) and forecasted values.

Following a presentation by National Grid Workgroup Participants asked for the following points to be noted:

- PARCAs reserved capacity and substitution consequences need to be added in.
- When assessing 'maximum of...', consideration must be given to the Obligated Capacity as adjusted for substitution.
- Clarification required as to how forecasted values relate to those values given in the various FES scenarios¹⁸.
- Clarification of treatment of new entry and exit points (possible use of proxy) and points due for closure.
- Consider five-year historical data (for each day: maximum and minimum values to be discarded then average of the three remaining).
- DN 1 in 20 forecast capacity booking for each offtake point (this data is not currently publicly available; July refinement timing of this data may not be suitable).

Workgroup Participants noted Ofgem's Modification 0621 Decision Letter¹⁹ which can be found here. Workgroup Participants reflected that the values being proposed must meet the criteria: actual utilisation and capacity bookings.

Workgroup agreed that the current plan is an improvement on using obligated capacity.

20 February 2019

Some Workgroup Participants noted that National Grid had not provided an FCC methodology and as such severely limited the opportunity for others to develop an Alternative FCC solution. Some Workgroup Participants requested that an extension be sought. Others did not agree with this view.

¹⁸ The forecast is a consolidated view of the FES forecasted scenarios: <http://fes.nationalgrid.com/fes-document/>).

¹⁹ Ofgem's Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

Within the meeting, Ofgem confirmed that they would not adjust the timeline as outlined in their 0678 Urgency decision letter.

Some Workgroup Participants asked for clarification on what would happen if Ofgem's final decision is appealed or a Judicial Review sought and whether Ofgem's decision would stand whilst the Appeal took place. Ofgem suggested Workgroup Participants engage their own Legal Counsels in relation to this question.

FCC not in UNC 26 February 2019

Some Workgroup Participants noted concerns over the potential for the FCC to be changed too frequently and there is a trade-off to be considered between certainty and flexibility.

FCC values for values for Storage Sites, Interconnector UK and BBL

04 March 2019

Workgroup Participants discussed information supplied by Energy UK relating to Storage sites, Interconnector UK and BBL Interconnector. Energy UK highlighted that the forecast FCC values for storage sites, IUK and BBL were absent in the sensitivity tool. Energy UK highlighted that this does not seem to recognise that there are expected to be Exit flows at these points during a year.

As a result of the above National Grid took an action to review the forecast elements of the FCC values for Storage Sites, IUK and BBL.

05 March 2019

Workgroup Participants noted that a zero value for Storage sites, Interconnector UK and BBL Interconnector sites should not be correct and asked National Grid to review the forecast elements of the FCC values for these sites. National Grid clarified on 05 March 2019 that no forecast values exist for these and this will continue. This is because the forecast in the Ten-Year Statement²⁰ is zero for these sites (average daily value is used).

Some Workgroup Participants noted that anticipated booking should be reflected in the FCC Methodology. Interconnector UK acknowledged that this is a difficult issue.

National Grid confirmed for Workgroup that the forecast is produced at an aggregate level and not published at a Point Specific level. It is used at a point specific level for the purposes of FCC inputs to the methodology.

Where FCC values are zeros they are listed as such with reason however for the future purpose of charging and the FCC production the values may need to be split further down with additional granularity.

This process of using the forecast is not there to challenge the forecast to be updated. It is to use this as one of the inputs National Grid can use to inform the charging calculations. Should it be necessary to review values for consideration within the FCC methodology it would be managed via the Exceptions process.

²⁰ Ten Year Statement www.nationalgridgas.com/insight-and-innovation/gas-ten-year-statement-gtys

The updated forecast has been used for several years as part of the Gas Charge Setting processes as an alternative to linking solely to one of the Future Energy Scenarios (e.g. historically, Charges used to be set against 'Gone Green'²¹).

The "Updated Forecast" represents National Grid's shorter-term view of the current trajectory of energy supply and demands.

National Grid confirmed for the Workgroup that the FCC methodology will be kept under review.

National Grid further clarified that the following is linked to the forecast input:

- The forecast may contain some but not necessarily all of the PARCA information as there will be limitations based on timing of publication of the forecast. The FCC methodology enables PARCAs to be considered separately using information known at the time of charge calculation.
- Interconnection points – Entry or Exit will show as zero because the forecast for an annual value will show the IP to be either a net importer or exporter.
- Storage - on an annual basis assume injections and withdrawals balance and therefore the values are zero (i.e. not a net importer or exporter but imports equal exports).

Workgroup Participants noted that point specific information is not available as part of the 'updated forecast' within the Ten Year Statement.

Workgroup Participants noted that the calculation of how often the FCC value uses the updated forecast rather than the other input parameter options has not yet been considered. As such the impact of this has not yet been assessed.

Workgroup Participants noted that TAR NC requires transparency of input data into the formation of reference prices. The granularity of information required here has been provided as part of the development of the FCC.

Other Workgroup Participants noted that the granularity of data is not the same as the formula, calculation and derivation in order to replicate the data.

FCC and treatment of closed sites 04 March 2019

Workgroup Participants noted information supplied by Energy UK relating to Closed Sites (Avonmouth, Deeside, Glenmavis, Dynevor, Partington and there may be others). Workgroup noted that these sites have historic flows in 2017/18 so they keep rolling forward for the next 5 years and some workgroup Participants questioned whether this is the correct assumption to use. Workgroup sought clarification from National Grid as to how the issue of Closed Sites could be better handled within the FCC Methodology, noting the impact is that an ability to forecast charges for future years is somewhat limited. Energy UK suggested it may be better to only use the Y-2 values, or some kind of average across a number of years but this should be a moving average.

As a result of the above, National Grid took an action to review the treatment of Closed Sites and later confirmed that Closed Sites would not be removed from the model.

²¹ FES scenario Gone Green information: <http://fes.nationalgrid.com/>

National Grid also took an action to review the effect on the FCC methodology and the potential for adaption in treatment of these sites in the FCC Methodology. National Grid later confirmed that a sense check would be considered and may be included in the FCC Methodology Statement.

Workgroup Participants noted information supplied by Energy UK relating to sites with PARCA stage 2 reservations. These appear where the site is an existing site, if the site is new the values are absent. Reservations exist from 2020 or 2021. (Drax 65 GWh, Eggborough 102 GWh, Tilbury Marshes 21 GWh, Hirwuan 28 GWh, Ferry bridge 80 GWh, Keadby 2 41 GWh, there may be others). Total 337 GWh or around 6% of FCC in those years. Those sites are therefore unable to use the model to produce an estimate of their charges as per Article 7a, other sites' charges will be higher than they should be. Workgroup Participants noted that National Grid had indicated it would be accommodating these sites/PARCAs and expected to see these in the distance matrix from the relevant year.

05 March 2019

Examples of Closed Sites are Theddlethorpe, Avonmouth, and Dynevor Arms.

All Workgroup Participants noted that the treatment of these sites should be addressed formally in the FCC Methodology. Some Workgroup Participants stated that if these sites are left in at a non-zero FCC value there would be a distortion to the prices, albeit probably small. Workgroup requested that the FCC Methodology reflect the situation in reality as closely as possible.

Workgroup discussed whether National Grid should be given some discretion as to the treatment of closed sites in the FCC Methodology and concluded that clarity in the treatment and consistency going forward was required (noting that the FCC Methodology is expected to be in place indefinitely, with a periodic review).

Workgroup noted that as of 05 March 2019 the FCC Methodology Statement had not yet been put before Workgroup (and not therefore published by National Grid).

National Grid noted for Workgroup that as at 05 March 2019, the sites will be zeroed out in the sensitivity model and the materiality of this will be noted; closed sites will not be removed from the model. A sense check or adaptation would be considered and may be included in the FCC Methodology Statement.

FCC values for DNs 05 March 2019

Workgroup Participants noted the concern expressed by DN Workgroup Participants over the values coming out of the FCC for DN sites; Cadent noted on 05 March 2019 that the data in the FCC was 9% lower than DN capacity bookings across all Cadent LDZs. National Grid confirmed the forecast is based on Y-2.

Workgroup Participants noted that there would be an impact of any change to FCC numbers which may be forthcoming.

28 March 2019

National Grid confirmed that discussions with the DNs had led to a recognition that a separate approach for DN offtake capacity forecasts was appropriate for the FCC Methodology.

Workgroup Participants discussed 'discrimination' and whether this approach could be applied to all points in the future.

Materiality of the update to FCC data following updates to 0678 Sensitivity Tool to v3.1 20 March 2019

National Grid clarified that it had received some questions specifically regarding FCC values and also on the current base case for revenue recovery (how much is being recovered by sector from capacity and commodity). Some numbers needed to be updated for the latter and National Grid did this when moving from v3.0 to v3.1 of the Sensitivity Tool.

This on its own did not change the sensitivity model (v3.0) in functionality however as National Grid updated some of the input data an updated Sensitivity Tool (v3.1) was provided. At the same time, whilst not essential National Grid updated some FCC values to accommodate various observations regarding PARCA start dates. The materiality of these updates to tariffs for 2019/20 illustrative prices is an average change of 0.08% to reserve prices on Entry and 0.51% on Exit.

National Grid was of the view that these changes were therefore minor in their influence. However, in the spirit of providing the best possible indicative basis to inform the Workgroup, on 20 March 2019, National Grid repeated and published their analysis and data sets previously published on 15 March 2019.

RPMs and Incremental Capacity

Workgroup Participants noted that both the CWD and the PS approaches remove the LRMC approach from the UNC, therefore they do not provide investment signals related to the transmission network. Both are cost allocation models, and neither are cost reflective in regard to incremental capacity and any subsequent NTS investment required.

Workgroup Participants noted that Ofgem's Decision Letter for Modification 0621 dated 20 December 2018 stated²²:

"Our current view is that the three RPMs proposed by the UNC621 Modifications (other than the elements we have compliance concerns about) are better approaches to the recovery of network costs than the status quo. This is because all users who benefit from access to a safe, reliable, flexible gas transmission network would more equally share the costs of the network in proportion to their ability to use it."

²²Ofgem's Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621 and here: <https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/page/2018-12/Ofgem%20Decision%20Letter%200621.pdf>

Workgroup provided a summary of Workgroup views regarding the FCC Methodology, these are given in **Table 10** below.

Table 10: Workgroup summary of its FCC Methodology review

Positive Aspects
<ul style="list-style-type: none"> • Workgroup Participants noted that the FCC Methodology v1 has been broadly adopted by all Proposers. (Modification 0678A proposes National Grid produce an FCC Methodology.) • A Workgroup Participant noted that the FCC methodology may lead to reduced under or over recovery. • Workgroup Participants noted that the FCC Methodology will be reviewed via the NTSCMF and if the Methodology is incorporated into the UNC, any Code party can raise a Modification at any point thereafter.
Areas for Improvement
<ul style="list-style-type: none"> • Some Workgroup Participants noted the different treatment for DNs based on their Licence obligations as they stand; RIIO-GD2 may change this. • Some Workgroup Participants noted that a small change in DN bookings would have a very large effect on other Users. • Some Workgroup Participants asked for clarification on how Users can communicate anomalies (what is the right of recourse on the dataset). Modification 0678A specifically provides for this.
Areas of Disagreement
<ul style="list-style-type: none"> • Some Workgroup Participants suggested that the treatment of closed sites should be clarified rather than dealt with on an exception basis.

Ofgem asked National Grid to consider the materiality of the changes discussed as being treated as exceptions. National Grid stated that the FCC values produced to date are indicative only.

4.4. Revenue Recovery

Revenue Recovery is the method by which the licensee recovers its revenue.

A Workgroup Participant noted that the Distribution Networks (DNs) are currently not exposed to a commodity charge, however they were of the view that under Modification 0678 the DNs would pick up a capacity recovery charge in the future, along with other Users.

The Workgroup considered the K Factor and the process of adjustments. A Workgroup Participant expressed concern about within year recovery and the volatility in tariffs. It was noted that National Grid have an incentive to forecast accurately and limit the use of K. Some Workgroup Participants raised the issue of why, in their view, the industry should be subject to the volatility of information created and provided by National Grid. Some Workgroup Participants wished to emphasise that National Grid should minimise the exposure for the industry because in their view, any forecasting error is pushed onto Shippers, and Users will see a change in prices for any error.

The Workgroup considered the elements that factor into the forecast and the way in which data is derived. For example, the long-term forecast will be dependent on production.

National Grid drew the attention of the Workgroup to its Licence obligation²³, which is to set charges in a way that does not under or over recovery in any given formula year and it has the ability to set revenue recovery charges to help facilitate this.

Special Condition 2A Restriction of NTS Transportation Owner Revenue Part A Licensees obligation and

Special Condition 3A. Restriction of NTS System Operation Revenue Part A Licencee's Obligation cover this.

Under 3A Part A: 3A.2 The Licensee, in setting NTS System Operation Charges, must use its best endeavours to ensure that, in Formula Year t , NTS System Operation Revenue (SOR t) does not exceed Maximum NTS System Operation Revenue (SOMR t).

Under 2A 2A.2 The Licensee, in setting NTS Transportation Owner Charges, must use its best endeavours to ensure that, in Formula Year t , NTS Transportation Owner Revenue (TOR t) does not exceed Maximum NTS Transportation Owner Revenue (MR t).

0678C and Revenue Recovery

The Proposer of Modification 0678C, explained that the exclusion of Revenue Recovery Charges at Storage points which have not been booked for "own use gas" purposes is consistent with the findings of Ofgem in its Gas Transmission Charging Review (GTCR)²⁴ on the basis that flows to and from storage (or capacity booked at an entry to deliver gas to, or an exit point to ultimately offtake from) have already made a contribution to historical cost recovery.

The Proposer of 0678C explained further that this exclusion ensures the charging structure accommodates common practice of storage operators in relation to the acquisition and subsequent release of entry capacity to Users of their facilities. In a number of cases, entry capacity at storage facilities will have been acquired by a nominated shipper user, often to trigger National Grid investment to build and release the required volume of capacity. The sale of storage services by operators is often bundled with the transfer of entry capacity from the nominated shipper holder of entry capacity to the entity acquiring storage services. If a Revenue Recovery Charge is applied to Existing Capacity transferred at any time after the 07 April 2017 "cut-off date" then, in the case of Modification 0678, the acquiring User would be subject to a Revenue Recovery, on the basis that it is not the original holder of the Existing Capacity. The Proposer of Modification 0678 stated that this approach will result in the additional costs being incurred by the storage operator and is, quite clearly discriminatory. The charging

²³ In addition, there are adjustments to revenues in the event National Grid is on course to under or over recover within the Revenue restriction with regards to interest payments. Further there are Licence conditions related to the potential for over recovery in two consecutive years. There are restrictions on whether charges can be increased.

²⁴ Ofgem's GTCR documentation can be found here:

www.ofgem.gov.uk/gas/transmission-networks/gas-transmission-charging-review

arrangements should not differentiate between Users, using the same product, but acquiring indirectly via a third party for example, the storage operator not being a UNC registered User.

Some Workgroup Participants noted that 0678C, 0678E and 0678F do not provide protection for all storage facilities. In particular, they don't provide protection for:

- a) Rough (Easington) and existing entry capacity explicitly bought for Rough when it was a Storage facility and
- b) Abandoned Storage at Bacton and as such appear to discriminate between one class of Storage and other classes. Workgroup Participants noted Modification 0662²⁵ has not yet been finished nor implemented and of course is separate to 0678.

Other Workgroup Participants noted that Rough has now been defined as a production site.

The Proposer of 0678C went on to state that Storage is exempt from Revenue Recovery Charges in line with Ofgem's GTCR position. Further, all other contracts are exposed to Revenue Recovery Charges including pre-April 2017 contracts, see SSE's legal (QC) advice on Article 35 in Modification 0678C Appendix 2. This is permitted because the separate Revenue Recovery Charge was not a reserve price fixed at the time of booking and therefore the tariff was not a fixed price in practice. The Proposer of 0678C further highlighted that failure to apply a Revenue Recovery Charge to these existing contracts will result in distortion and discrimination between existing contract holders and new entrants which will have a negative impact on competition, as noted in Ofgem's 0621 Decision Letter²⁶ which identifies a large differential in pricing between them.

Revenue Recovery and 0678C

The Proposer of Modification 0678C provided the Workgroup with extensive commentary on revenue recovery in relation to Modification 0678C.

The Proposer of Modification 0678C stated that exclusion of Revenue Recovery Charges at Storage points which has not been booked for "own use gas" purposes is consistent with the findings of Ofgem in its Gas Transmission Charging Review on the basis that flows to and from storage (or capacity booked at an entry to deliver gas to, or an exit point to ultimately offtake from) have already made a contribution to historical cost recovery.

Further, this exclusion ensures the charging structure accommodates common practice of storage operators in relation to the acquisition and subsequent release of entry capacity to Users of their facilities. In a number of cases, entry capacity at storage facilities will have been acquired by a nominated shipper user, often to trigger National Grid investment to build and release the required volume of capacity. The sale of storage services by operators is often bundled with the transfer of entry capacity from the nominated shipper holder of entry capacity to the entity acquiring storage services. If a Revenue Recovery Charge is applied to Existing Capacity transferred at any time after the 07 April 2017 "cut-off date" then, in the case of Modification 0678, the acquiring User would be subject to a Revenue Recovery, on the basis that it is not the original holder of the Existing Capacity. This approach will result in the additional costs being incurred by the storage operator and is, quite clearly

²⁵ Modification 0662 - <https://www.gasgovernance.co.uk/0662>

²⁶ Ofgem's Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

discriminatory. The charging arrangements should not differentiate between Users, using the same product, but acquiring indirectly via a third party. for example, the storage operator not being a UNC Registered User.

The Proposer of Modification 0678C stated that in 0678C Storage is exempt from Revenue Recovery Charges in line with Ofgem's GTCR position²⁷. All other contracts are exposed to revenue recovery charges including pre-April 2017 contracts. This is permitted because the separate revenue recovery charge is not a reserve price fixed at the time of booking. (This is similar to the existing charging regime where a fixed capacity price is paid, and a floating commodity price applied to recovery all of the Transporter's Allowed Revenue.). Failure to apply a revenue recovery charge to these existing contracts will result in distortion and discrimination between existing contract holders and new entrants which will have a negative impact on competition, as noted in Ofgem's Modification 0621 Decision Letter²⁸ which identifies a large differential in pricing between them.

Revenue Recovery and 0678E/F/G/H

The Proposers of Modification **0678E and 0678F** stated that their Modifications exclude all capacity held at storage points from the application of a Revenue Recovery Charge. The Proposers believe the exclusion of capacity booked at Storage points is consistent with the findings of Ofgem in its Gas Transmission Charging Review²⁹ on the basis that flows to and from storage (or capacity booked at an entry to deliver gas to, or an exit point to ultimately offtake from) have already made a contribution to historical cost recovery. In addition, the exclusion of Revenue Recovery Charges on adjusted Capacity at storage will ensure that storage owners are able to offer storage services to the third-party Users on an equivalent basis to Users who acquired capacity prior to and including 05 April 2017.

The Proposers of Modification **0678G and 0678H** stated that their Modifications exclude all Existing Capacity held at storage points from the application of a Revenue Recovery Charge. The Proposers believe that it is reasonable that non-storage Existing Contract holders would expect to make a contribution to revenue under-recoveries at the time of acquiring capacity, with the exception of Existing Contracts held at storage. The Proposers of 0678G and 0678H both believed that excluding Existing Contracts from the application of a Revenue Recovery would be discriminatory, exposing any non-Existing Contract capacity bookings to an unfair distribution of costs, resulting in charges which are unreasonably high.

4.5. Existing Contracts

GB has a large quantity of existing contracts which require careful consideration when deciding how best to implement TAR NC for the GB market. The relevant section of TAR NC is Article 35. Please

²⁷ Ofgem's GTCR documentation can be found here:

www.ofgem.gov.uk/gas/transmission-networks/gas-transmission-charging-review

²⁸ Ofgem's Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

²⁹ Ofgem GTCR policy view:

www.ofgem.gov.uk/sites/default/files/docs/2015/11/gtcr_confirmation_of_policy_view_and_next_steps.pdf

note further consideration of the compliance aspects of Existing Contracts and Article 35 is given in Section 4.10 under compliance theme C. Existing Contracts/ Revenue Recovery Charge.

Some Workgroup Participants requested clarification from National Grid as to the treatment of netting-off existing contracts volume and revenue, against Ofgem's views in their Modification 0621 Decision Letter relating to price differentials (see Annex 2: page 15)³⁰.

A Workgroup Participant noted that other EU Transmission System Operators (TSOs) do not net off within the FCC value. It was also noted that these TSOs do not offer fixed prices as is the case within GB. For estimated under recovery, approaches can include or exclude existing contract revenue recovery. A Workgroup Participant believed a Commodity Recovery Charge would be consistent with TAR NC and was not explicitly ruled out in the Modification 0621 Decision.

A Workgroup Participant believed that the Workgroup needed to consider the impact of including existing contracts in the weighting of cost step in the RPM calculation.

The Workgroup acknowledged there would be a price difference as a result of Article 35. Some Workgroup Participants wanted to understand the materiality of this and where the residual charges would reside.

Modification 0678 v1 had a revenue recovery charge which did propose to levy a revenue recovery charge on Existing Contracts. In v3 and subsequent versions a revenue recovery charge is not proposed for Existing Contracts.

Some Workgroup Participants believed there was a need to review capacity hand-backs.

A Workgroup Participant suggested that a range of interpretations of Article 35 is partly reflected in different applications of the Transmission Services Revenue Recovery Charge (TSRRC) under the 11 Modification proposals. Generally, Modifications either provide protection from the TSRRC to all Existing Contracts or to only Existing Contracts at Storage Sites. Modification 0678F provides a capacity handback mechanism for contracts entered into since the entering into force of TAR NC.

Additional work on Existing Contracts requested by Ofgem

In its extension letter for Modification 0678, Ofgem requested that National Grid provide a specific review of Existing Contracts to include analysis on price differentials³¹. Ofgem stipulated delivery of this work by 15 March 2019. As of Workgroup re-commencement on Thursday 28 March 2019 this work had not yet been delivered.

On 10 April 2019 Workgroup reviewed only the summary document of the Existing Contract work, requested by Ofgem.

This Existing Contracts additional material was published on Monday 08 April 2019 and as such Workgroup wished to note that it did not have sufficient time to consider this work.

As a result, Workgroup noted on 10 April 2019 that no Modifications have been amended as a result of the output of this work there was almost no opportunity for Proposers or potential Proposers to do so.

³⁰ www.gasgovernance.co.uk/0678/

³¹ www.gasgovernance.co.uk/0678/

A Workgroup Participant highlighted that the option of an approach that retained the Existing Contract Revenue and Capacity within the modelling for determination of reference prices was not considered by Baringa³². This approach could have gone further towards rebalancing charges between new purchases and Existing Capacity.

Some Workgroup Participants noted that the principle of applying additional charges to Existing Contracts is covered in a broad sense in Section 5 of the Baringa Report³³.

Other Workgroup Participants wished to note that the Baringa report was not that clear in responding to the exact requirements of Ofgem's request specifically in relation to consumer welfare.

Some Workgroup Participants noted that the only proposal which provides some mitigation is Modification 0678C through the application of revenue recovery charges to Existing Contracts apart from Storage.

Some Workgroup Participants highlighted that the issue has arisen because of the requirements of the TAR NC specifically protection of Existing Contracts under Article 35 and a requirement that transmission services revenue must mainly be recovered through capacity charges.

Some Workgroup Participants wished to highlight that substantial quantity of qualifying contracts for GB as a result of the fixed price for long term entry under current arrangements which have long been in place. The interpretation and implementation within GB is that fixed prices will no longer be available for new Entry capacity contracts after 06 April 2017 (Entry into Force of TAR NC).

Workgroup expect more commentary to be received as part of the Consultation Responses.

Secondary Trade of Existing Capacity 20 February 2019

Workgroup considered the effect on capacity which has been traded in a secondary manner. National Grid confirmed that tracing capacity trades will be a challenge for Gemini.

A Workgroup Participant suggested that since National Grid has tracked capacity for storage until 06 April 2017, asking whether the same process be applied to other capacity traded before 06 April 2017.

The Proposers of Modifications 0678/A/B confirmed that these Modifications protect secondary traded capacity up to 06 April 2017 from the application of the revenue recovery charge for storage sites.

The Proposer of Modification 0678B confirmed that this Modification protects secondary traded capacity up to 06 April 2017 from the application of the revenue recovery charge for all existing contracts.

The Proposers of Modifications 0678/A/B confirmed that these Modifications do not protect secondary traded capacity for all existing capacity contracts made after 06 April 2017.

The mechanism for determining who is protected (prior to 06 April 2017) is the same for both Modifications 0678 and 0678B.

³² Baringa Analysis - <https://www.gasgovernance.co.uk/0678/Analysis>

³³ Baringa Analysis - <https://www.gasgovernance.co.uk/0678/Analysis>

The Proposers of Modifications 0678G and 0678H confirmed that these Modifications protect secondary traded capacity up to 06 April 2017 from the application of the revenue recovery charge for storage sites.

Workgroup Participants asked for clarification on the effect of Transfer of Title - Traded Historical Capacity contracts (for capacity bought before April 2017) and whether they would attract revenue recovery charges Workgroup requested clarification of who the liability holder is.

National Grid clarified that for 0678, if contracts were traded before entry into force of TAR NC (06 April 2017) then revenue recovery would continue. If contracts are traded after this date then the revenue recovery charge will apply.

Unprotected Entry Capacity (Modification 0678F only)

Modification 0678F proposes the establishment of a new class of capacity called Unprotected Entry Capacity (for 01 October 2019 or from the Effective Date whichever is later) allocated after 12 February 2018 but before 20 December 2018 (the date on which the Authority published its decision to reject UNC 0621 and all of its Alternatives). Modification 0678F allows for the surrender of Unprotected Entry Capacity where the initial price for Capacity booked for the 2019/20 Gas Year, as calculated for the purpose of the Annual Invitation to Participate in the Auction of Quarterly System Entry Capacity, as stated in the Notice of Revised NTS Entry Capacity QSEC Reserve and Step Prices Notice, increases by more than 5% of the price at which the capacity was allocated, then the User may surrender some or all of the capacity back to National Grid for all qualifying capacity from the effective date without further charge. In subsequent years, any remaining Unprotected Entry Capacity can be surrendered where the price increases by more the 5% + RPI.

Workgroup agreed that a summary of the issues with Existing Contracts is centred around the application of TAR NC and specifically Article 35. This is coupled with the method by which Existing Contracts are accommodated within the proposals. A further feature to bear in mind is the quantity of potentially qualifying contracts for GB.

Workgroup confirmed that the area of primary disagreement is centred around the interpretation of Article 35.

4.6. Multipliers

Multipliers are a means of adjusting the Annual Reference Price for other capacity product specific auctions and they are a feature of the current regime. At present adjustments to shorter term Capacity are either “no adjustment or they are discounts (up to 100% discount). All Modifications include provision for capacity product specific multipliers (applied to the Reference Price to determine Reserve Prices) which is also provided for under TAR NC Article 13 where certain provisions are required:

Article 13

Level of multipliers and seasonal factors

1. The level of multipliers shall fall within the following ranges:
 - (a) for quarterly standard capacity products and for monthly standard capacity products, the level of the respective multiplier shall be no less than 1 and no more than 1,5;

- (b) for daily standard capacity products and for within-day standard capacity products, the level of the respective multiplier shall be no less than 1 and no more than 3. In duly justified cases, the level of the respective multipliers may be less than 1, but higher than 0, or higher than 3.
- 2. Where seasonal factors are applied, the arithmetic mean over the gas year of the product of the multiplier applicable for the respective standard capacity product and the relevant seasonal factors shall be within the same range as for the level of the respective multipliers set out in paragraph 1.
- 3. By 1 April 2023, the maximum level of multipliers for daily standard capacity products and for within-day standard capacity products shall be no more than 1.5, if by 1 April 2021 the Agency issues a recommendation in accordance with Regulation (EC) No 713/2009 that the maximum level of multipliers should be reduced to this level. This recommendation shall take into account the following aspects related to the use of multipliers and seasonal factors before and as from 31 May 2019:
 - (a) changes in booking behaviour;
 - (b) impact on the transmission services revenue and its recovery;
 - (c) differences between the level of transmission tariffs applicable for two consecutive tariff periods;
 - (d) cross-subsidisation between network users having contracted yearly and non-yearly standard capacity products;
 - (e) impact on cross-border flows.

The Proposal as outlined in Modification 0678 aims to achieve Compliance with Article 13 of Regulation 2017/460 and, whilst this is an Interconnection Point only article under TAR NC, National Grid has proposed to apply one methodology for shorter term multipliers across all Entry and Exit points. The EU Tariff Code permits multipliers within ranges for different capacity products. These ranges have the potential to increase or decrease prices relative to the Annual Reference Price.

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 (i.e. to incentivise long term over short term or vice versa) and therefore this aspect of the pricing methodology would not influence Users' capacity procurement strategy if the payable price is ultimately the same.

The Workgroup supported the proposed Multipliers and noted that they were within the range permitted by Regulation 2017/460 Article 13(1). Modifications 0678/A/B/C/D/E/F/G/H/I/J all have the same multipliers of one (1.0).

Whilst Multipliers (as a definition with associated ranges) are only mandated at Interconnection Points under the EU Tariff Code, the Proposals apply this approach to all Entry and Exit points. National Grid clarified that this was done with the aim of having one methodology for all points.

4.7. Interruptible Discount

The Workgroup explored the impacts on pricing stability of historical zero priced Interruptible Capacity products. It also considered the requirements contained in TAR NC Article 16 in relation to the extent of the future discount which can be applied to determine Reserve Prices for Interruptible Capacity:

Article 16

Calculation of reserve prices for standard capacity products for interruptible capacity

1. The reserve prices for standard capacity products for interruptible capacity shall be calculated by multiplying the reserve prices for the respective standard capacity products for firm capacity calculated as set out in Articles 14 or 15, as relevant, by the difference between 100 % and the level of an *ex-ante* discount calculated as set out in paragraphs 2 and 3.

2. An *ex-ante* discount shall be calculated in accordance with the following formula:

$$D_{\text{ex-ante}} = \text{Pro} \times A \times 100 \%$$

Where:

$D_{\text{ex-ante}}$ is the level of an *ex-ante* discount;

Pro factor is the probability of interruption which is set or approved in accordance with Article 41(6)(a) of Directive 2009/73/EC pursuant to Article 28, and which refers to the type of standard capacity product for interruptible capacity;

A is the adjustment factor which is set or approved in accordance with Article 41(6)(a) of Directive 2009/73/EC pursuant to Article 28, applied to reflect the estimated economic value of the type of standard capacity product for interruptible capacity, calculated for each, some or all interconnection points, which shall be no less than 1.

3. The Pro factor referred to in paragraph 2 shall be calculated for each, some or all interconnection points per type of standard capacity product for interruptible capacity offered in accordance with the following formula on the basis of forecasted information related to the components of this formula:

$$\text{Pro} = \frac{N \times D_{\text{int}}}{D} \times \frac{\text{CAP}_{\text{av. int}}}{\text{CAP}}$$

Where:

N is the expectation of the number of interruptions over D;

D_{int} is the average duration of the expected interruptions expressed in hours;

D is the total duration of the respective type of standard capacity product for interruptible capacity expressed in hours;

$\text{CAP}_{\text{av. int}}$ is the expected average amount of interrupted capacity for each interruption where such amount is related to the respective type of standard capacity product for interruptible capacity;

CAP is the total amount of interruptible capacity for the respective type of standard capacity product for interruptible capacity.

4. As an alternative to applying *ex-ante* discounts in accordance with paragraph 1, the national regulatory authority may decide to apply an *ex-post* discount, whereby network users are compensated after the actual interruptions incurred. Such *ex-post* discount may only be used at interconnection points where there was no interruption of capacity due to physical congestion in the preceding gas year.

The *ex-post* compensation paid for each day on which an interruption occurred shall be equal to three times the reserve price for daily standard capacity products for firm capacity.

The discount is a product of the predicted probability of interruption allows the economic value, of the interruptible capacity product, to be taken into consideration. National Grid referred to previously presented analysis (covering the previous ten years) to support the basis for the proposed discounts.

This can be found here:

<https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/book/2017-12/Gas%20Charging%20Review%20Presentation%20%28amended%29%20v2.0.pdf>

This analysis was reviewed under Modification 0621.

Modification 0678 contains the same proposed discounts as those proposed under Modification 0621.

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. Overall, the probability of interruption for the vast majority of sites is very low (but not zero). National Grid adopted a banding approach to determine the initial value whereby the resultant discount value was rounded up to the nearest 10%. Consequently, the expectation is a that change to this discount will only be justified where there is a material change to the frequency of interruption on the System.

The interruptible discount derived from the calculation prescribed by TAR NC Article 16 was rounded up to the nearest 10%. This recognises the “economic value” aspect of Article 16. The outcome for Modification 0678 is that the discount will be 10% and provides a stable value going forward, in that it would be unlikely to require a change based on the same approach as in the 10% derivation for some time. Any change would require a UNC Modification to implement and would include the rationale for change.

Income from interruptible capacity, and any capacity, contributes towards Transmission Services Revenue Recovery. This is in line with Workgroup expectations. The Price Control arrangements do not change, and National Grid will always be required to report in line with its Licence. As far as the UNC goes and tariff setting and revenue recovery alignment there are revenue mapping activities associated to this is and this is catered for in Modification 0678 when considering any capacity revenue, including that capacity revenue recognised under the System Operator under the NTS Licence.

A change to the 10% interruptible discount can be achieved through a UNC change. Some Workgroup Participants thought this was a simplistic approach to pricing interruptible discounts. If or when this value needs to be revisited, then changes to it will follow the normal UNC change process.

A Workgroup Participant noted that there are two important points to consider here. Firstly, the likelihood of an interruption – if the reality is that interruptions are a rare occurrence (there is evidence to suggest no interruptions for long periods e.g. years), then the level of discount should be reflective of this. Secondly, the impact of that interruption. If a party cannot meet its obligation then the impact is more significant. Overall a 10% discount is a good general move towards a more cost reflective approach to price interruptible capacity. This should continually be reviewed though to determine if 10% is the right level going forward.

4.8. Specific Capacity Discounts

Storage

Modification 0678 proposes a 50% storage capacity discount. The Workgroup recognised that the requirement for application of at least a 50% discount to the Reserve Price at Storage Connection Points was proposed in order to comply with TAR NC Article 9:

Article 9

Adjustments of tariffs at entry points from and exit points to storage facilities and at entry points from LNG facilities and infrastructure ending isolation

1. A discount of at least 50 % shall be applied to capacity-based transmission tariffs at entry points from and exit points to storage facilities, unless and to the extent a storage facility which is connected to more than one transmission or distribution network is used to compete with an interconnection point.
2. At entry points from LNG facilities, and at entry points from and exit points to infrastructure developed with the purpose of ending the isolation of Member States in respect of their gas transmission systems, a discount may be applied to the respective capacity-based transmission tariffs for the purposes of increasing security of supply.

Where the Proposals are at 50% National Grid believed this to be sufficient to cover this obligation under TAR NC even if the “benefit” may be less than 50%. Where it is 50%, whilst it may not be material in influencing the charges as the amount “redistributed” that would not be paid by storage would be paid for by all other parties may not be substantial, it still does mean there are parts of charges not paid by some parties that will and therefore paid by others and all proposals should be mindful of how any redistribution is managed.

Under Modification 0678/A/B/D/G/H/I/J the Proposals minimise any amounts redistributed across Users where charges are not levied on some parties and resulting revenues are therefore picked up in other charges by applying the minimum 50% level of discount.

Modifications 0678C/E/F propose a Storage discount of 80%. It is stated that this level of discount is proposed based on that prescribed by TAR NC Article 9 (1)³⁴ in order to avoid double charging and to sufficiently reflect storage’s contribution to system flexibility and security of supply (as given in Article 9(1)) and to deliver compliance with the Regulation.

An additional paper was provided by GSOG/WWA to support the 80% discount Proposal³⁵:

Storengy has also provided some analysis to support the 80% Storage Discount³⁶.

Gas storage provides shippers with access to physical flexibility to manage any physical portfolio imbalances which occur for a variety of reasons. Gas storage is an essential tool for a large number of shippers which contract directly with storage operators, but also provides wider benefits to all shippers as a result of enhanced security of supply and well-understood, significant positive externalities. These

³⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0460>

³⁵ Link for GSOG/WWA report justifying 80% storage discount: www.gasgovernance.co.uk/0678/

³⁶ Storengy analysis document can be found here: www.gasgovernance.co.uk/0678/Analysis

wider benefits dampen price volatility and reduce the likelihood of network investment, constraints, gas deficit issues and cost escalation.

Based on the outputs from the draft UNC 0678 model published on 09 February 2019, an 80% discount would result in Revenue Input Adjustments of £31.3m at Entry and £27.3m at Exit, 1.8% of total Allowed Revenue being recovered from Non-Storage Users.

On this basis, there is no cross-subsidy between storage and non-storage users, beyond perhaps that as a result of the security of supply and broader societal benefits (externalities) non-storage Users are net beneficiaries of the 80% discount.

In the event that storage is not given a discount, storage assets can be expected to close prematurely as highlighted in the initial Frontier Economics report³⁷, commissioned for Energy UK for Modification 0621 and the Baringa Report for Ofgem. Hornsea Storage has been loss making in the last 3 years, for gas storage operators it is a question of how long assets can be maintained without the prospect of making economic returns. In the event of closure other non-Storage users will pay for the missing revenue no longer paid by storage users and will have less security of supply, higher wholesale gas costs and higher system operating costs.

Ofgem stated that any discount above 50% would need a clear justification. The derivation of the 80% is based on analysis carried out by WWA as set out in its report to the Gas Storage Operators Group which the Proposer contends provides sufficient evidence to justify the proposed level of discount.

In addition to providing a quantitative basis for establishing a discount of 80% the report sets out numerous benefits of storage which reinforce the case for a discount, which when considered in aggregate, might reasonably result in a level greater than 80%. In summary, these benefits include:

- Storage flows are highly correlated to demand, or changes in demand. The main driver for this is that demand is the primary driver of price (again a very high correlation exists between these variables) and Users employing storage to capture the intrinsic value associated with market price spreads over various durations (commonly known as time shifting the value of gas). Both National Grid and customers benefit from this interaction between storage flows and demand/price as it provides assistance in balancing the network while dampening price volatility and delivering positive externalities, or societal benefits, by reducing price spreads across a range of time periods.
- Storage delivers transmission benefits in terms of avoided investment in additional capacity. The fact that it is embedded in the network, close to demand, and operates in harmony with changes in demand means that storage delivers significant cost savings to the NTS and ultimately customers.
- Security of supply is enhanced by gas storage. Gas stored in the facilities provides cost effective and reliable insurance against supply disruptions and demand spikes. The benefits will be twofold: delivering gas to the market in which it is located; and dampening the price of gas by adding volume to the available supply.

³⁷ Gas Transmission Charging Review Analysis a Report for Energy UK by frontier economics. June 2018
<https://www.energy-uk.org.uk/publication.html?task=file.download&id=6680>

Some Workgroup Participants noted that there is a requirement under the EU Tariff Code to apply discounts to storage capacity, where the discount is at least 50%. Storage provides a security of supply in extreme events therefore it seems appropriate to apply a level of discount. As the minimum level is 50%, there needs to be full justification for a discount level beyond this. Therefore, in the view of the Workgroup Participants, 50% seems to be the right level at the moment unless there is concentrated evidence to suggest otherwise going forward.

Workgroup noted that the materiality effect of moving from 50 to 80% Storage Discount was of the order of 1-2% increase on other charges as outlined above.

Some Workgroup Participants were of the view that this is an acceptable increase for the benefits that Storage provides and as such some Workgroup Participants supported the higher level of discount.

Further discussions relating to storage highlighted how some Workgroup Participants wished to query the implications of any Storage Discount for any new Storage facility, along with how any User Commitment would be derived. Workgroup Participants also noted that User Commitment is not proposed to be changed by any of these Modifications and will continue as it is done under the current regime.

LNG

Article 9 of TAR NC states a discount for LNG may be applied. Under Modification 0678 National Grid does not propose that any discount be applied to LNG. However, as it is provided for under TAR NC, it is feasible that subject to review over time, this may be applied. In order to do this, National Grid has proposed it would efficient to include the LNG discount as a concept in the UNC and set the value to 0 (zero).

The Workgroup recognised the Proposal to include the potential provision for application of discount to the Reserve Price at LNG Connection Points. All Modifications propose a 0% LNG discount. Workgroup Participants noted that this level can be changed in the future through a UNC Modification.

National Grid clarified that it does not recognise any of the GB assets as falling under the definition of “Infrastructure ending Isolation” (Article 9) and therefore provides for no other discounts when considering compliance with Article 9. This is similar for all proposals except UNC0678I that includes an Ireland Security Discount with links to its relevance and compliance referring to Article 9 of TAR NC.

Ireland Security Discount (Modification 0678I)

The Proposer of 0678I highlighted that they proposed an Ireland Security Discount of 95% to the Moffat IP Exit point for nominated supply routes from UK Beach Terminals.

The Proposer of 0678I confirmed their view that the Ireland Security Discount is consistent with Article 9 as it is recognised that Ireland is an isolated market served by supplies from GB. There is no timing factor set out in Article 9 i.e. a discount is not just valid at the time isolation is ended (prior to, enabling the construction of the Moffatt interconnector), nor is there any methodology within TAR NC in how to identify infrastructure that ends isolation. In the Proposer’s view, Article 9 in combination with the guiding principles of TAR NC provide for a discount to be applied when a member state remains at risk of isolation to ensure it Ireland continues to receive gas supplies (at reasonable prices).

The dependency of Ireland is reflected in the N-1 standard, which is a test whereby Member States must guarantee they can satisfy total gas demand if the largest piece of infrastructure fails on an exceptionally high gas demand day. This test applies to Moffat in the case for Ireland. To pass the test, the remaining gas infrastructure must be able to meet 100% of peak demand. As Ireland cannot meet

the N-1 infrastructure standard on a national level, the UK and Ireland have adopted a joint regional approach to pass the test. This is outlined in Gas Network Ireland's 2018 Network Development Plan.

Not all workgroup Participants agreed that this is compliant with Article 9 of TAR NC specifically on the point of 'infrastructure ending isolation' as given in Article 9(2).

Some Workgroup Participants noted that there are no plans for equivalent discounts on the Irish side relating to infrastructure ending isolation. This could suggest that the Gas Networks Ireland (GNI) and the Commission for Regulation of Utilities (CRU) do not consider Moffat Interconnector to be 'infrastructure ending isolation' relating to Article 9.

Other Workgroup Participants noted that in relation to the RPM for Ireland, the CRU process under TAR NC in 2015 and 2018 developed a matrix LRMC RPM with the goal that any new entry should be efficient compared with Moffat. This recognises that Moffat is and continues to be (until further notice) the marginal source of gas and price setter for Irish gas consumers. Both the Irish and Northern Ireland consultations clearly state that Moffat is the marginal source of gas. Gas Networks Ireland's (GNI) analysis for NC TAR implementation was all based around the impacts on flows from Moffat.

Some Workgroup Participants commented that the Corrib field is declining and there is little progress on LNG import facilities in Ireland, therefore the Moffat Interconnector continues to be infrastructure that ends isolation, both historically and in future.

Some Workgroup Participants, including the Proposer of Modification 0678I, noted the Moffat Interconnector should rightly be considered important in that it links to three other jurisdictions (Northern Ireland, Republic of Ireland and the Isle of Man). There are inter-governmental treaties relating to it.

Some Workgroup Participants confirmed that the Moffat Interconnector was not included in the Projects of Common Interest (PCI). However, work that was carried out in recent years to twin/double the onshore section of pipeline in Scotland was. The Proposer of 0678I highlighted that PCI projects commenced in 2013 whilst the Moffat interconnector was developed in 1994.

4.9. NTS Optional Charging arrangements

Under the current charging arrangements, there is a specific charge entitled NTS Optional Commodity Rate (also known as 'shorthaul'). The purpose of this charge has been to discourage inefficient bypass of the NTS by offering an optional charge in place of all commodity charges to encourage use of the NTS.

Under Modification 0678 and its Alternatives, there are a range of methods by which managing inefficient bypass of the NTS is incorporated into the overall methodology.

Modifications 0678, 0678A, 0678C, 0678E and 0678F contain no provision for an additional optional charge to manage the avoidance of inefficient bypass of the NTS. National Grid is of the view that it is not necessary to include such a charge in its Proposal in order to have a compliant Modification. National Grid has raised Review 0670R with the aim of achieving a wholesale review of the most efficient mechanism to incorporate a means of discouraging inefficient bypass of the NTS as part of the overall transportation charging framework.

A Workgroup Participant noted that there has been a significant increase in the use of 'Shorthaul', which has had impact on other charges which was not originally envisaged. This can result in certain Users subsidising other parts/use of the network. If the CWD approach is implemented, it could be argued there is no longer a need for 'Shorthaul' as distance is taken into consideration. Also, currently there is

no formal well-thought-out process for the qualification requirements for 'Shorthaul' which leads to risks of inappropriate use of it. Finally, in the view of the Workgroup Participant, under the proposed changes, the chances of parties using 'Shorthaul' can be considered to be lower and therefore it seems appropriate to remove 'shorthaul'.

Some Workgroup Participants confirmed the qualification criteria for 'shorthaul' are largely commercially based. This means that the decision process around electing for the new shorthaul may not be based on bypass pipeline decisions.

Other Workgroup Participants noted that 0678D, 0678G, 0678H and 0678J propose a cost-based qualification criteria. It could be argued that the addition of the fee acts to secure some User Commitment. In the case of 0678B the application of a system utilisation factor also constitutes a form of User Commitment.

Other Workgroup Participants noted that there was no detailed discussion of the underlying cost base for these Modification within Workgroup 0678.

Some Workgroup Participants noted that the distance element taken into account for the shorthaul calculations uses the average distance (see for example Bacton – 0km between Entry and Exit). Therefore, there is still a need for the shorthaul tariff.

Some Workgroup Participants noted that under 0678B National Grid's analysis suggests that all current optional routes would still benefit from the optional charge. A reduction in uptake for some of the Modifications with an optional charge does not justify removing the optional product.

Some Workgroup Participants noted that the existence of 0670R could be construed as tacit acceptance that a 'shorthaul' type concept is required, which in turn highlights this Modification 0678 could be seen as being incomplete. This leads to a fragmented approach. Compliance with EU Regulation is essential, and the Workgroup must also consider Proposals as measured against all Relevant Objectives.

National Grid clarified it believed the Modification 0678 was complete and noted that 0670R is not complete and therefore its conclusions are not yet known. All Proposers clarified that their Modifications are considered to be complete.

Other Workgroup Participants supported the view that a 'shorthaul' type concept is not required to achieve compliance with TAR NC.

One Workgroup Participant pointed out that they had not seen any analysis about the probability of those sites currently using the optional charge building bypassing pipelines. This is not just a matter of it being cheaper, though that is the initial driver.

Workgroup observed that demonstrating 'genuine risk of bypass' is difficult; it is a commercial decision.

Other Workgroup Participants noted that a holistic approach to charging could be argued to include a 'shorthaul' type concept. Ofgem's 0636 rejection letter³⁸, commented there might be benefits in not reviewing in isolation.

³⁸ Ofgem Decision Letter rejecting 0636 p.6: <http://www.gasgovernance.co.uk/0636>

NTS Optional Charge included in Modifications 0678B, 0678D, 0678G, 0678H and 0678J

Workgroup noted that within those Modifications which included an Optional type charge, there were two clear methods used.

NTS Optional Charge Method 1 in 0678B

The Proposer of Modification 0678B was asked by Workgroup to summarise Method 1.

In Modification 0678B, the Optional Capacity Charge is regarded as an integral part of the RPM.

Modification 0678B replaces the Optional Commodity Charge with an Optional Capacity Charge that is generated as part of a Capacity Weighted Distance Reference Price Methodology. Shipper Users will use normal Supply Point Administration processes to establish the pairing of an entry and exit point, and the straight-line distance (D) between them, to enable Optional Capacity Charges to be levied. D is divided by the Capacity Weighted Distances (CWDs) established for the chosen entry and exit points to calculate ratios for the (unscaled) Optional Capacity Charges to the Reserve Prices. For example, if D is 50km and the CWD at the chosen exit point is 150km, then the (unscaled) Optional Capacity Charge at the exit point is set so that it equates to one third of the exit point's Reserve Price.

The payable (or scaled) Optional Capacity Charges are derived with reference to a System Utilisation Factor (SUF) that is calculated as the sum of all entry and exit Forecasted Contracted Capacities divided by the sum of all entry and exit baseline/ obligated capacities. The SUF is divided-in to the unscaled Optional Capacity Charge to calculate the payable price. For example, if the SUF were 0.5 then the payable price would be double that of the unscaled price).

Optional Capacity Charges for a valid entry point/ exit point combination are limited to an Applicable Quantity that is the minimum of the following values for the entry and exit points on the Gas Day: firm entry capacity entitlement; firm exit capacity entitlement; allocated quantity of gas entered; allocated quantity of gas exited. Non-Transmission Services Charges are not payable on gas entry and gas exit allocations in respect of the Applicable Quantity, but Transmission Services Revenue Recovery Charges would be payable.

Any entry or exit capacity, and any allocated entry or exit allocated quantities not covered by the Applicable Quantity would be subject to prevailing non-Optional charge arrangements.

Consistent with current arrangements, the new arrangements will not apply for storage sites or NTS/DN offtakes.

Merits of Method 1³⁹:

- Intuitively derived as part of an integrated CWD methodology
- Wholly transparent in how charges are derived via deterministic calculations
- Will provide more cost-reflective charges for some sites and will help to correct instances where proximate entry and exit points both have high Reserve Prices
- Will discourage inefficient bypass of the NTS whether via new onshore pipelines or via the extensive existing network of offshore pipelines

³⁹ These are given from the point of view of the Proposer of 0678B

- Will help to attract gas to the GB market, especially Norwegian imports, LNG imports and imports via the two interconnectors at Bacton
- Will promote trade across Interconnection Points (Bacton and Moffat) and will encourage cost-effective deliveries of gas to Ireland and the Isle of Man.
- Initial assessments made by National Grid indicate that the new optional charge arrangements are expected to be available to all large consumers who currently rely on optional charge arrangements.
- Current optional charge arrangements are perceived by some industry observers to be too generous. National Grid's assessment indicates that the new arrangements will be significantly less generous.

NTS Optional Charge Method 2 in 0678D, 0678G, 0678H, 0678I and 0678J

A Workgroup Participant provided the following background on behalf of the Proposers of 0678D, 0678G, 0678H, 0678I and 0678J:

The NTS Optional Capacity (OCC) proposed in Modification Proposals 0678 D/G/H/J and the Wheeling Charge proposed in Modification Proposal 0678I are based on the principle that the costs incurred by the Users of the services should reflect the costs of building and maintaining an NTS bypass pipeline of equivalent size and duration.

The OCC and Wheeling charges are derived from applying updated cost data from National Grid to an amended NTS Optional Commodity Charge equation (similar to the Option Two proposed in National Grid discussion document GCD11⁴⁰) to obtain a relationship between the cost of providing pipeline capability to support a particular load size and distance travelled from a nominated NTS Entry Point to the particular NTS Exit Point (OCC rate given in p/kWh), known as the OCC Route.

The results of the cost function are then converted into a capacity charge by reference to the FCC and Maximum NTS Exit Point Exit Rate (MNEPOR). Consistent with the approach advocated for recovery of Transmission Services revenue, the resultant cost in p/kWh/day is then split 50:50 to apply at the relevant NTS Entry Point and NTS Exit Point.

In the case of the OCC proposals, Users of a specific OCC route (the combination of a qualifying NTS Exit Point and nominated NTS Entry Point will, in aggregate, incur an Annual OCC Fee equivalent to the cost of building and maintaining a bypass pipeline, independent of the quantity of gas flowed from the NTS Entry Point to the NTS Exit Point (to be charged monthly or annually). This is not included within Modification 0678I.

The OCC proposals do not include a distance cap i.e. there are no exclusions based on distance in relation to gaining access to the OCC. This is not the case with Modification Proposal 0678I where a maximum distance between the Entry and Exit points of 0km is a condition of use.

⁴⁰ National Grid discussion document GCD11:

<https://www.nationalgridgas.com/sites/gas/files/documents/42342-NTS%20GCD11%20-%20Optional%20Commodity%20Charge%20Change%20V1.3.pdf>

The OCC and Wheeling services are not available to DN offtakes or storage points, which is a continuation of the current rules. The Proposers believe that only those offtakes where gas is “consumed” and cannot be traded should qualify for NOC, which excludes DN offtakes and storage points.

Workgroup discussed whether this would exclude IPs.

For the avoidance of doubt the shorthaul proposed under Modifications 0678D, 0678G, 0678H, 0678I and 0678J would apply at IPs.

Merits of Method 2⁴¹

A Workgroup Participant was asked to provide the following summary of merits of Method 2, on behalf of the Proposers of Modifications 0678D, 0678G, 0678H, 0678I and 0678J:

The use of a cost-based approach to generate charges which reasonably represent the costs of building and maintaining a private pipeline of equivalent length and size is consistent with the objective to set cost reflective charges. In the case of the Proposals which include an Annual OCC Fee, these costs are borne irrespective of utilisation, which in turn furthers the achievement of this objective.

In all cases, the OCC and Wheeling Charges ensure that those offtakes located close to entry points are not unduly burdened with costs, and as result do not make excessive contributions to allowed revenues (skewing competition). This is particularly relevant where the underlying RPM is focused on the distribution of revenue, rather than a representation of costs, which is the case with CWD and PS. It should be recognised that the current LRMC RPM, although arguably more cost reflective, does generate prices which inflate the costs for transmission services across shorter distances (due to the application of theoretical supply merit order and the scaling of NTS Exit Charges to ensure revenue recovery).

In the absence of an OCC or Wheeling Charge, there is an increased likelihood of NTS bypass. Where the OCC or Wheeling Charge is based on a principle of cost reflectivity the developer/User is able to assess the relative costs of building a pipeline or using the NTS. This will result in optimal outcomes for all Users of the NTS. In particular the degree of transfer of value between OCC/Wheeling Users and non-Users is likely to be minimal, if not negative (due to the benefits generated by Users not bypassing the NTS) as the service charges are cost-reflective.

The benefits to all Users of non-NTS bypass include:

- Greater utilisation of the NTS reduces the unit cost of using the NTS
- Enhances attractiveness of UK market for supplies which can be diverted to alternative destinations, which in turn will improve market liquidity, reduce gas prices and improve UK security of supply.
- Facilitate cross border flows, to the benefit of UK gas prices and access to alternative markets for UK supplies.
- Limit unnecessary investment in private pipelines and duplication of existing pipeline infrastructure.

⁴¹ These are given from the point of view of the Proposers of Modifications utilising Method 2

The NTS Optional Capacity Charge Methodology and NTS Optional Wheeling Charge Methodology documents have been produced by National Grid on behalf of the proposers of UNC Modification 0678D/G/H/J and 0678I respectively. This includes Proposer inputs to amend the NTS Optional Commodity Charge calculation, which is applied to updated cost data from National Grid based on the parameters set out in the respective Modifications.

Modification 0678: Impacts of cessation of current NTS Optional Commodity Rate

Workgroup noted that the impact of cessation of the current Optional Commodity Rate is given within the Optional Charge Analysis document submitted National Grid. This is available here:

<http://www.gasgovernance.co.uk/0678/Analysis>

Some Workgroup Participants believed that both the CWD and PS approaches without an optional charge approach face significant challenges with respect to cost reflectivity because of some relatively high exit charges at points close to entry points.

Some Workgroup Participants expressed concern about deviating from current requirements for notice periods and potentially significant impacts on the market, in particular those customers currently using the NTS Optional Commodity Rate. It was noted that Ofgem has previously requested information about the potential impacts of Modification 0636 - Updating the parameters for the NTS Optional Commodity Charge⁴² and the information received was referenced in Ofgem's decision to reject implementation of Modification 0636⁴³. Some Workgroup Participants therefore had an expectation that a similar exercise would be undertaken by Ofgem noting the commercial confidentiality issues associated with including such information in consultation responses.

Some Workgroup Participants expressed concern at the nature of the cessation of the NTS OCR and the potential risks around this aspect.

'Wheeling Charge' approach in 0678I 06 March 2019

Workgroup Participants discussed the details of the 0678I Wheeling charge, noting it is stated to be a conditional product based on being in the same location. Discussion included how 'same location' is defined and the potential impact of physical reverse flow for BBL.

Workgroup Participants noted that the formula for 0678I Wheeling Charge is based on data from National Grid discussion document GCD11⁴⁴, assuming the cost base underneath that is appropriate.

4.10. TAR NC Compliance Assessments

The Joint Office requested that all Proposers provide to the Workgroup an assessment of how their Modification met the requirements of TAR NC. A copy of these individual assessments can be found here: www.gasgovernance.co.uk/0678/

⁴² https://www.ofgem.gov.uk/system/files/docs/2018/06/unc636_request_for_evidence.pdf

⁴³ <http://www.gasgovernance.co.uk/0636>

⁴⁴ www.nationalgridgas.com/charging-gas-charging-discussion-gcd-papers

Following completion of the Assessments by the Proposers, Workgroup then reviewed the contents. Workgroup agreed that Compliance can only be assessed to the best of the ability of the Workgroup.

Workgroup Participants are not qualified to provide any legal opinion on the merits of legal compliance in relation to TAR NC.

Workgroup noted that some Proposers have shared considered legal opinions with the Workgroup relating to their own Proposals.

Readers of this Workgroup Report may find it helpful to read these TAR NC compliance assessments alongside the Comparison table developed by National Grid and reproduced in Section 3 above.

When reviewing the Proposer's assessments, Workgroup noted observations by Compliance Theme and thereafter by specific Modification.

The Compliance Themes determined by Workgroup are shown in **Table 12**.

Table 11: Compliance Themes

Compliance Themes
A. Interim Contracts
B. Optional charging arrangements
C. Existing Contracts/ Revenue Recovery Charge
D. Reference Price Methodology (RPM)
E. Specific Capacity Discounts
F. Implementation / Effective Dates and Compliance with Article 38
G. Capacity surrender
H. Cost Allocation Assessment
I. Additional Compliance topics

A. Interim Contracts

Workgroup noted that the concept of Interim Contracts was proposed under Modification 0621⁴⁵. One of the reasons why 0621 was rejected by the Authority related to the treatment of Interim Contracts. This set the expectation that any long-term entry capacity allocated after entry into force of TAR NC (06 April 2017) will float and will be subject to the new charging regime. However, Modification 0678F includes capacity hand-back mechanism in respect of entry capacity.

⁴⁵ Ofgem's Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

Workgroup Participants noted that Storengy had made early representation and raised concerns⁴⁶.

Workgroup Participants noted Article 35 and explored compliance of top up charges (Revenue Recovery) on legacy contracts.

Workgroup noted a number of issues relating to Legacy Contracts. Workgroup wished to understand how the principle of levying a top-up charge on legacy contracts was compatible with Article 35.

National Grid clarified that the mechanism of Revenue Recovery (via a top up charge) will be subject to change, as with the current framework. Currently it is commodity based. All Modifications are capacity based for the purposes of Revenue Recovery.

Workgroup Participants noted that under some of the Proposals, Modification 0662⁴⁷ would no longer be necessary. It would no longer be necessary where Existing Contracts are exempt from paying revenue recovery charges.

B. Optional Charging arrangements

The second area Workgroup considered was Optional Charging arrangements. Within Workgroup Optional Charging was also known by the term 'shorthaul'.

In general, these arrangements are to cover the ways in which the transportation charging framework could incorporate a way to discourage inefficient bypass of the NTS and thereby pay suitable charge to use the NTS instead.

National Grid raised Modification 0670R in October 2018 as a Review Group to look at ways in which the charging framework could potentially incorporate a means to discourage inefficient bypass of the NTS. 0670R has not concluded. Whilst it is under development and progressing, any outcome will need to consider and therefore be dependent on the outcome of Modification 0678.

The current NTS Optional Commodity Charge is available at all points on the NTS where commodity charges are payable (i.e. not Storage Points and NTS/DN Offtakes).

Workgroup noted that the current NTS Optional Commodity Charge under all Proposals would no longer exist. Under 0678/A/C/E/F there are no proposals for a charge to manage inefficient bypass of the NTS.

Modification 0678B proposes an Optional Capacity Charge for the reasons set out in the 0678B proposal.

0678D/G/H/I/J all propose a way in which to manage inefficient bypass, as part of their proposals (e.g. an NTS Optional Capacity Charge for all these except 0678I and a Wheeling charge under 0678I). The full rationale for these charges is included in the relevant Modifications.

One question raised by some Workgroup Participants was around compliance with TAR NC and specifically if the relevant charges are available at all points, arguably a point to consider under Article 6 where there is reference to any RPM being applicable to all points.

⁴⁶ Storengy initial representation can be found here: www.gasgovernance.co.uk/0678/Reps

⁴⁷ Modification 0662 - Revenue Recovery at Combined ASEPs www.gasgovernance.co.uk/0662

Some Workgroup Participants noted that the arrangements are available at all points and the impacts will be point specific. Where any such charge may not be accessible it is noted that the reason for this is noted in the respective proposal.

On the specific topic as to whether the respective proposals are available at all Entry and Exit points, there was a debate linking to the DN networks. The following paragraphs summarise this discussion on this specific point and if the proposals can be considered compliant from the Proposers and Workgroup Participants point of view. In general, there are views on both sides of compliance, however the Proposers advocate compliance with TAR NC for their proposals.

Workgroup Participants noted that relevant Articles are likely to be Article 6.3 and 6.4.

Some Workgroup Participants noted that the same RPM is applied to all Points. For the relevant Modifications, the Optional Charge forms part of the overall methodology, as does the Wheeling charge for 0678I. DN points are excluded as they are not single offtakes, they are part of a combination or collection of offtakes where gas is offtaken for final delivery to the end consumer. Some Workgroup Participants were of the view that the gas hasn't left the NBP when it enters the DN network.

Some Workgroup Participants noted that from a Shipper point of view all exit points do not include DN Points.

In relation to the above, WWU provided the following view to the consideration of this first paragraph in bold:

“DN points are excluded⁴⁸ as they are not single offtakes, they are part of a combination or collection of offtakes where gas is offtaken for final delivery to the end consumer. The gas hasn't left the NBP when it enters the DN network.”

WWU view is that reference should be made to **relevant System and Total System** as defined in TPD A 1.1.1. (see below) rather than to the National Balancing Point.

It is true that Gas entering the DNs does not leave the Total System. However, since the discussion is about the NTS we should be referring to the National Transmission System. Note also that DNs are not Systems, the LDZs are the Systems. It is clear that gas leaving the NTS leaves the NTS System, this is true whether the gas is offtaken by Shipper or DNs.

This refutes the argument in the second sentence of the above statement which seems to be the major point of the argument of the Proposers of B, G, H and I.

DNs like Shippers take their gas from individual NTS Exit Points.

DNs may, like Shippers, take gas from multiple NTS Exit Points.

The reason for the gas being offtaken from the NTS is not relevant to the discussion. Notwithstanding this it is theoretically possible for a DN to exist that supplied a single customer (it would require a very unlikely set of circumstances to occur) but if it did occur then it would

⁴⁸ Some Workgroup Participants noted that the Wheeling Charge in 0678I may need to be examined in the same light, in respect of DN points.

illustrate the fallacy of the argument put forward. This refutes the first part of the above statement.

Therefore, the argument put forward for excluding DNs from the optional charge and wheeling arrangements in 0678B, 0678G, 0678H and 0678I cannot be supported. It could if there was one charging methodology covering the Total System, but this is not the case.

WWU also provided the following extract from TPD A 1.1.1:

(a) "**System**" means:

(i) *the National Transmission System; or*

(ii) *a Local Distribution Zone;*

(b) "**Total System**" means *all the Systems taken together.*

1.1.2 Subject to paragraph 1.7.2, a System does not include any independent system nor any

pipeline to which gas can only be conveyed through a pipeline system operated by a gas

transporter other than a Transporter.

1.1.3 A System does not include any Storage Facility.

Some Workgroup Participants strongly disagreed with WWU's view.

Other Workgroup Participants agreed with WWU's views.

Some Workgroup Participants strongly disagreed with the view that "**gas hasn't left the NBP when it enters the DN network.**" If a User elects for using 'shorthaul' they would be bypassing the NBP and more so, this is a Point to Point Service which is not allowed under 2009/715 (Third Energy Package⁴⁹).

Some Workgroup Participants noted that there are Point to Point Services in Europe (Germany, the Netherlands and Belgium) so in their view they are compliant with 2009/715 (Third energy package). These point to point services cover a variety of points and routes.

Some Workgroup Participants strongly disagreed with the view that using 'shorthaul' is bypassing the NBP and felt it was factually incorrect.

Some Workgroup Participants noted that the DNs book exit capacity at various Exit Points interfacing with the NTS. Shippers are supplying gas to customers within those DNs and do not nominate gas flows against individual NTS/DN offtakes. In the case of the current NTS Optional Commodity Charge, there is a linkage between the booking of capacity and the supply of gas to the customer.

⁴⁹ The Third Energy Package consists of two Directives:

- Directive 2009/72/EC concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=celex%3A32009L0072>
- Directive 2009/73/EC concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009L0073>

Some Workgroup Participants noted that within 0678B, 0678D, 0678G, 0678H, 0678I and 0678J their Optional Capacity Charge Proposals are not considered a discount.

Other Workgroup Participants questioned whether the Optional Capacity Charge is a discount and whether the Wheeling charge is a discount.

Some Workgroup Participants noted that the overriding principle for the use of the Optional Commodity Charge is there needs to be a linkage between a capacity booking and a nomination for the supply of gas. On this basis DN's are excluded and Interconnectors are included. In relation to Storage, the Tariff Code recognises that they are unique points on the network and worthy of individual treatment as detailed in Article 9.

Some Workgroup Participants noted that the issue is a matter of principle – same price for the same service. This is not the same as the practical level.

Some Workgroup Participants were of the view that the Optional Capacity Charge in those Alternatives which propose it, improves cost reflectivity of the overall RPM.

The Proposer of 0678C advised that CWD results in charges which on average are higher at beach terminals than other entry point groups. This might be distortionary and result in higher priced NBP gas as charges are incrementally passed through on a marginal basis or cheaper sources of gas being frozen out of the market. Existing contracts have significantly lower charges than new entrants and this might be discriminatory.

The Proposer of 0678C further advised Scotland has higher DN charges than other points, this is not cost reflective given that most gas used to supply Scotland will enter at St Fergus and this may be politically sensitive. St Fergus has higher entry costs under CWD than PS, given that Norway is a marginal supplier to GB this has the potential to increase NBP gas price and therefore costs to customers by up to £10/year /customer or £190 M/year. Peterhead has higher exit costs under CWD than PS, given that it may set the marginal clearing price in a future Capacity Mechanism auction this has the potential to impact customer levies therefore costs to customers by up to £5/year/customer or £117 M/year. Supporting information to the above statements is provided in Modification 0678C Appendix 4.

In conclusion, Workgroup Participants failed to agree as to whether the Optional Capacity Charge in those Alternatives which propose it, is compliant with TAR NC.

C. Existing Contracts/Revenue Recovery Charge

Some Workgroup Participants highlighted a range number of possible interpretations of Article 35, observing the breadth of Alternatives covering this, noting the distinction made between Storage or other contracts and when the contract commenced. As a result, Workgroup Participants noted that some Modifications have different treatment of Revenue Recovery charge for Existing Contracts.

A range of interpretations of Article 35 is partly reflected in different applications of the Transmission Services Revenue Recovery Charge (TSRRC) under the 11 Modification proposals.

Generally, Modifications either provide protection from the TSRRC to all Existing Contracts or to only Existing Contracts at Storage Sites or to all contracts at Storage sites.

Modification 0678F provides a Capacity Handback Mechanism for contracts entered into since the entering into force of TAR NC.

The reader is encouraged to consult the Comparison Table in **Section 3** and the individual Modification Proposals contained in Part II

Some Workgroup Participants noted that it was impossible to meet compliance with TAR NC **and** all Relevant Objectives simultaneously. As such some Proposers have chosen to focus on one or the other but mindful of the importance of both.

Workgroup noted that under TAR NC, Article 35 provides for protection of certain contracts:

Article 35

Existing contracts

1. This Regulation shall not affect the levels of transmission tariffs resulting from contracts or capacity bookings concluded before 6 April 2017 where such contracts or capacity bookings foresee no change in the levels of the capacity- and/or commodity-based transmission tariffs except for indexation, if any.
2. The contract provisions related to transmission tariffs and capacity bookings referred to in paragraph 1 shall not be renewed, prolonged or rolled over after their expiration date.
3. Before 6 May 2017, a transmission system operator shall send the contracts or the information on capacity bookings, if any, referred to in paragraph 1 to the national regulatory authority for information.

Modification 0678C and Existing Contracts

Workgroup discussed Article 35 Compliance for Modification 0678C. The Proposer of Modification 0678C stated that all non-Storage capacity is liable for revenue recovery charges as per SSE's Legal (QC) advice. All Storage Capacity is exempt from revenue recovery charges as per Ofgem's GTCR decision⁵⁰ in November 2015. Workgroup Participants noted the documentation from the Proposer of 0678C with a legal view on Article 35 which supported Modification 0678C (and thanked SSE for allowing publication). This stated that as Transmission Tariffs were variable at the point of booking pre-April 2017 due to the variable revenue recovery charge, they are deemed not to be protected from variable revenue recovery charges going forward.

A Workgroup Participant did not agree that the legal opinion provided by SSE was clear on this point made above.

National Grid noted that it does not have any visibility of who does what in terms of owners of contracts which have been secondarily traded. Workgroup Participants noted that trades through Gemini are visible.

Workgroup Participants noted that secondary trades (of all contracts, not just storage) are not mentioned under TAR NC and therefore it could be argued to not be a compliance issue.

⁵⁰ Ofgem's GTCR documentation can be found here: <https://www.ofgem.gov.uk/gas/transmission-networks/gas-transmission-charging-review>

One Workgroup Participant suggested an alternative future solution (a suggestion for another future Modification) which was to have an aggregate over-run for entry which gets around the issue of a shipper buying a certain capacity which is then traded on (similar to aggregate overrun for exit).

Workgroup Participants noted that other legal views are likely to be available supporting other Modifications.

Workgroup Participants suggested that Compliance Assessments and any legal view should ideally form an Appendix to the Modification in question.

Modification 0678D and Existing Contracts

Modification 0678D is proposed with a focus on protection for Existing Capacity Contracts with a minimum 50% Storage Discount within a CWD RPM.

Workgroup Participants noted the Proposer of 0678D Eni's legal view on TAR compliance (and thanked Eni for allowing publication) which outlines how Article 35 is fully complied with by shielding Existing Contracts. The Eni Legal View on Article 35 is published at: www.gasgovernance.co.uk/0678

Workgroup Participants noted that the legal view from the Proposer of Modification 0678C contradicts the view regarding 0678D.

D. Reference Price Methodology (RPM)

In relation to RPM, Workgroup noted that several of the TAR NC Articles refer specifically to the RPM. Workgroup discussed each Article that they deemed to be of relevance are shown below. Articles 6, 7 and 8.

Workgroup noted that for those Modifications which propose CWD, the proposed CWD methodology is a variant of the CWD Proposal in TAR NC.

Article 6

Workgroup noted that TAR NC, Article 6 relates to the application of the RPM.

Modification 0678

Some Workgroup Participants noted that the definition of the RPM and how the adjustments are applied can be interpreted in different ways.

1. Either the reference price is created from the first run of the model and then adjusted in a manner different from that specified in Article 6(4). Or
2. The RPM is considered as the entire process with the adjustment process embedded within it.

Workgroup Participants suggested that this latter case is in fact the process contained within Modification 0678.

Modification 0678F

Workgroup Participants discussed the potential impact of the Unprotected Entry Capacity from the two QSEC auctions in 2018 (the effect on FCC of surrender followed by re-purchase and the effect on revenue).

Workgroup Participants noted that TAR NC is silent on Unprotected Entry Capacity this is because it is a construct outside of TAR NC, applicable to GB.

Workgroup Participants noted that Modification 0678F requires an initial run of the model to enable the surrender process as described in 0678F to determine whether the initial prices differ from the 2018 QSEC auction prices by an amount greater than the trigger. For the avoidance of doubt this run of the model is not part of the RPM and therefore is not considered a compliance issue with Article 6.

Article 7

Workgroup noted that TAR NC, Article 7 relates to the choice of a Reference Price Methodology (RPM):

Article 7

Choice of a reference price methodology

The reference price methodology shall comply with Article 13 of Regulation (EC) No 715/2009 and with the following requirements. It 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.

Workgroup Participants thanked National Grid for the model it had created for 0678. This 0678 sensitivity tool allows Users to reproduce prices using the data given.

Workgroup Participants noted that two Sensitivity Tools have been reviewed by Workgroup (one from National Grid and one from Centrica for 0678B).

Some Workgroup Participants wished to note that the data required for Modifications including an Optional Charge (apart from 0678B) is not publicly available.

Upon implementation a model would need to be provided and some Workgroup Participants were unsure as to how this would be managed.

Workgroup Participants highlighted that any Modification implemented would require development and publication of a suitable model for generation of final prices and also that it is possible for models to be published whilst still retaining confidential information (this has been done in some other Members States).

Some Workgroup Participants representing DN Users noted that the accuracy of this final model is critical. For more information please see Workgroup's comments on Independent Assurance and accuracy with **Section 4.17. entitled Independent Assurances on the development of any new Charging Models.**

Some Workgroup Participants noted that current Licence obligation (on cost reflectivity) appear to be a major contributor to the choice of CWD as the RPM; rather than a TAR NC compliance issue.

Other Workgroup Participants noted that high exit charges close to entry points are not intuitively cost reflective.

A Workgroup Participant noted that a similar 'high' exit charge close to entry points is found with both CWD and PS methodologies.

Workgroup noted that Article 7 c, d and e were not assessed. For further information please refer to the Cost Allocation Assessment theme. Cost Allocation Assessment will form part of the Article 26 Consultation.

Article 8

Workgroup noted that TAR NC, Article 8 relates to Capacity Weighted Distance Reference Price Methodology (RPM).

Some Workgroup Participants discussed whether assuming the GB system to be an unconstrained network (without relevant flow scenarios) is appropriate and may raise issues of compliance. Opposing views were held within the Workgroup.

Workgroup Participants noted for completeness the definition of 'Cluster of entry or exit points' is also included in Article 3 paragraph 19:

"... 'cluster of entry or exit points' means a homogeneous group of points or group of entry points or of exit points located within the vicinity of each other and which are considered as, respectively, one entry point or one exit point for the application of the reference price methodology;"

The TAR NC allows for excluding of certain routes where flows between the points do not occur. This has not been considered in any of the Proposals.

Some Workgroup noted that Modifications with an optional capacity charge and CWD (0678B/D/G) as an approach builds on the CWD methodology to better reflect flows between proximate Entry and Exit Points.

E. Specific Capacity Discounts

In relation to Specific Capacity Discounts, Workgroup noted that Article 9 refers to the definition of the specific capacity discounts.

Workgroup noted that TAR NC, Article 9 states:

Article 9

Adjustments of tariffs at entry points from and exit points to storage facilities and at entry points from LNG facilities and infrastructure ending isolation

1. A discount of at least 50 % shall be applied to capacity-based transmission tariffs at entry points from and exit points to storage facilities, unless and to the extent a storage facility which is connected to more than one transmission or distribution network is used to compete with an interconnection point.
2. At entry points from LNG facilities, and at entry points from and exit points to infrastructure developed with the purpose of ending the isolation of Member States in respect of their gas transmission systems, a discount may be applied to the respective capacity-based transmission tariffs for the purposes of increasing security of supply.

Workgroup Participants noted in relation to all Modifications, that a Storage discount between 50 and 100% is deemed compliant with TAR NC Article 9.

In relation to Modification 0678I, one Workgroup Participant noted that TAR NC is silent on how to define infrastructure that ends isolation, such as the Moffat IP. The Proposer of 0678I provided an overview of external references⁵¹ that highlight imports of gas from GB via the Moffat interconnector are the marginal source of Irish gas supplies and therefore in the Proposer's view, meet the requirements under Article 9 Paragraph 2.

F. Implementation / Effective Dates and Compliance with Article 38

A Workgroup Participant noted that under Article 38 implementation should be from 31 May 2019. A Workgroup Participant noted it is expected to be effective for the beginning of the tariff year.

Other Workgroup Participants noted that TAR NC is silent on the Effective date.

Some Workgroup Participants noted some Modifications recommend a later Effective Date.

Some Workgroup Participants noted that compliance with Article 38 needs to be considered in the context of Article 29 publication of charges for the gas year ahead. This suggests that once published charges cannot be changed within year. Some Workgroup Participants were of the view that a Modification which allows for a date other than 01 October could lead to issues with compliance. Those issues would only arise if Ofgem chose an Effective Date other than 01 October.

The Proposers of Modifications 0678C and 0678I noted that 0678C and 0678I require a 01 October implementation date with four months' notice of charges as required under CAM⁵² and TAR NC. SSE's QC advice shared with Workgroup supports this view. The 0678C SSE Effective Date Legal Advice is published here: www.gasgovernance.co.uk/0678/.

Not having a transition period, the methodology required needs to avoid large stepped changes in charges, which in the view of a Workgroup Participant may be inconsistent with Article 17.1C.

A Workgroup Participant noted that TAR NC makes no provision (explicit or otherwise) for a transition period as proposed by the UNC621 Modifications: it will apply with full effect from 31 May 2019. That is not to say that a methodology could not be introduced incrementally where necessary.

Workgroup noted that there are no Modification under consideration which propose an explicit transition arrangement.

The Proposer of 0678I noted that within 0678I, the FCC Methodology can be amended one year after implementation to allow for any amendment required considering significant changes in charges. Following this it can only be amended every 4 years.

⁵¹ these links are given in Appendix 4 of Modification 0678I.

⁵² CAM NC Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems' available here:

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0459>

G. Capacity surrender

The Proposer of 0678F noted that the Modification allows for the establishment of a new process to permit users holding entry capacity allocated between specified dates to surrender some or all of the capacity subject to prices increasing beyond specified limits.

Some Workgroup Participants noted that TAR NC is silent on this issue. Other Workgroup Participants were of the view that this was a GB implementation issue rather than a compliance issue.

I. Cost Allocation Assessment (TAR NC Article 5)

Workgroup noted that TAR NC, Article 5 covers the Cost Allocation Assessment (CAA).

Workgroup Participants noted that under Modification 0621, National Grid carried out the Cost Allocation Assessment.

Ofgem confirmed on 20 February 2019, that it intends to carry out the Final Consultation for Article 26 itself. National Grid will be asked to carry out a preliminary Article 26 Consultation beginning shortly after the UNC Consultation commences, with the same end date as the UNC consultation. The CAA will be done by National Grid to be used in the Final Consultation by Ofgem. National Grid confirmed that the CAA results would be available during the UNC consultation. Ofgem confirmed it expected the CAA for all proposals would be done by National Grid with assistance from all Proposers.

Workgroup Participants expressed concern over the lack of opportunity to examine the accuracy of the CAA results for each Proposal.

Workgroup Participants expressed concern about the timelines for the interim Article 26 Consultation with the crossover of the two consultations effectively reducing the time for respondents to respond to each Consultation.

Workgroup Participants note that a CAA calculation is available for 0678 in the v2 spreadsheet model published 25 February 2019.

Workgroup Participants noted that the calculation envisaged under TAR NC is a “vanilla” version of such a calculation and as such probably did not envisage the level of existing contracts in the GB system. Existing contracts would have an undue influence on the results of such a calculation.

Workgroup Participants expressed the hope that Ofgem would strongly recommend bring out the above point in their Article 26 consultation documentation.

On 25 February 2019, Ofgem clarified that the final Article 26 Consultation would be based on a minded to decision (as against all of the 0678 Modification Proposals currently under consideration).

J. Additional Compliance topics

Compliance with Article 12

Workgroup noted that TAR NC, Article 12 refers to general provisions regarding reserve prices.

Workgroup Participants noted that the GB tariff year and Gas Year are the same. Some Workgroup Participants expressed strong concerns at the potential for charges to take effect from a non-01 October date and expected charges to apply for the whole Gas Year starting 01 October, as suggested by Article 12(2). This is covered under **Section 4.16 Implementation timings**.

Interruption and Compliance with Article 16

In relation to Article 16, the Workgroup considered that the probability of interruption under such a scenario would be very low. One Workgroup Participant expressed concern for IP connection points and all domestic points and the probability of interruption. The Workgroup recognised that when purchasing interruptible capacity there is a risk. The Workgroup considered the risk of interruption and the discount to be applied if incremental capacity is more than 20% and that the Modifications may not be compliant with Article 12.3.

Further discussion on Interruptible Discounts is given in **Section 4.5**.

Compliance with Article 27

Workgroup noted that TAR NC, Article 27 refers to periodic national regulatory authority decision-making.

Workgroup Participants noted that compliance with Article 27 is the responsibility of the NRA (Ofgem) and as such did not warrant further discussion.

Compliance with Articles 29 and 30

Workgroup noted that TAR NC, Articles 29 and 30 refer to publication timings.

Workgroup Participants noted that Compliance with Articles 29 and 30 are expected to be provided for with the UNC process and that there were overlaps with the RIIO process. There was some concern that the information for Article 30 is available in many disparate places and suggested that periodic updates could be given at the monthly NTSCMF UNC Workgroup.

Some Workgroup Participants noted that the information to satisfy Article 29 and 30 should be in the RPM introduced as part of the UNC Modification 0678.

Compliance with Article 31 - Form of publication

Workgroup considered whether the ENTSOG Transparency Platform needed to be referred to in the UNC. National Grid believed that this element would not be required in the UNC in order for it to apply; not every element of the TAR NC needs to be incorporated in the UNC in order for TAR NC to apply, similar to the EU legislation. The Workgroup considered the setting of tariffs and methodology. National Grid clarified that data that applies to each Article in the TAR NC is published on the ENTSOG Transparency Platform⁵³.

Modification 0678I Compliance with Article 4.2

Workgroup noted that under TAR NC, Article 4 paragraph 2 relates to consideration of conditions for firm capacity products and states:

⁵³ ENTSOG Transparency platform: <https://transparency.entsog.eu/>

Article 4

Transmission and non-transmission services and tariffs

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.

2. Transmission tariffs may be set in a manner as to take into account the conditions for firm capacity products.

3. The transmission services revenue shall be recovered by capacity-based transmission tariffs.

As an exception, subject to the approval of the national regulatory authority, a part of the transmission services revenue may be recovered only by the following commodity-based transmission tariffs which are set separately from each other:

- (a) a flow-based charge, which shall comply with all of the following criteria:
 - (i) levied for the purpose of covering the costs mainly driven by the quantity of the gas flow;
 - (ii) calculated on the basis of forecasted or historical flows, or both, and set in such a way that it is the same at all entry points and the same at all exit points;
 - (iii) expressed in monetary terms or in kind.
 - (b) a complementary revenue recovery charge, which shall comply with all of the following criteria:
 - (i) levied for the purpose of managing revenue under- and over-recovery;
 - (ii) calculated on the basis of forecasted or historical capacity allocations and flows, or both;
 - (iii) applied at points other than interconnection points;
 - (iv) applied after the national regulatory authority has made an assessment of its cost-reflectivity and its impact on cross-subsidisation between interconnection points and points other than interconnection points.
4. The non-transmission services revenue shall be recovered by non-transmission tariffs applicable for a given non-transmission service. Such tariffs shall be as follows:
- (a) cost-reflective, non-discriminatory, objective and transparent;
 - (b) charged to the beneficiaries of a given non-transmission service with the aim of minimising cross-subsidisation between network users within or outside a Member State, or both.

Where according to the national regulatory authority a given non-transmission, service benefits all network users, the costs for such service shall be recovered from all network users.

With reference to the above Article 4, the Wheeling charge is a Conditional Capacity Product.

Some Workgroup Participants noted that the material given by the Proposer of 0678I stated that the Wheeling charge will “*continue to attract gas to the GB market*”. Some Workgroup Participants did not believe this to be the case as in their view, the gas is not being delivered anywhere within the GB market.

The Proposer of 0678I stated that in relation to attracting gas to the GB market, the Wheeling charge will impact NBP spreads and will therefore impact the attractiveness of the GB market.

Other Workgroup Participants noted that, with the current OCR ceasing, Modification 0678I through its Wheeling charge, is providing the means not to lose some gas currently coming to the GB market and the revenue associated with it, which will contribute to the Allowed Revenue amount.

4.11. Topics raised in Ofgem’s Modification 0621 Decision Letter⁵⁴

The Workgroup considered the three issues raised relevant to the Modifications in Ofgem’s Modification 0621 Decision Letter. These are Interim Contracts, Transition Period, and NTS Optional Charges. Workgroup also made an assessment of relevant elements in Annex 2 of the Decision Letter.

1. Interim Contracts

All Modifications have no concept of Interim Contracts. The Workgroup agreed this consideration mitigated the concerns raised by Ofgem in their Decision Letter.

2. Transition Period

All Modifications have no concept of transition periods. The Workgroup agreed this consideration mitigated the concerns raised by Ofgem in their Decision Letter.

The Proposer of 0678 clarified that the concept of the transition period was not the sole aspect rejected by Ofgem, in addition concerns were also expressed around high commodity charges and the use of obligated capacity as a forecast of capacity. All Modifications mitigate these with the use of the Forecasted Contracted Methodology upon implementation.

There is no phased delivery proposed under any of the Modifications. The FCC approach is thus brought forward to day 1. An FCC Methodology Statement has been developed.

3. NTS Optional Charge

Ofgem’s Decision Letter in the view of the all Proposers was primarily concerned with the use of Commodity Charges within the some of the Modification 0621 solutions and also stated the Distance Cap should be fully justified.

Modifications 0678, 0678A, 0678C, 0678E and 0678F do not propose an Optional Charge. National Grid’s view is there is not a need for an optional charge for Modification 0678. Request 0670R is progressing independently through NTSCMF and is envisaged to provide a product to avoid the inefficient bypass of the NTS.

⁵⁴ Ofgem’s Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

Modifications 0678B, 06768D, 0678G, 0678H, 0678I and 0678J have proposed an Optional Charge, solely applying to firm capacity entitlements, that is capacity based and does not impose an artificial distance cap.

Cost Reflectivity in relation to Capacity Weighted Distance (CWD) approach (0678B, 0678D, 0678G and 0678I) and the Postage Stamp (PS) approach (0678H, and 0678J) is enhanced by the inclusion of the Optional Charge Solution.

Assessment of Annex 2 of Ofgem rejection letter of 0621

Workgroup noted that Ofgem provided non-binding views within its Modification 0621 Decision Letter, some of which are addressed by the Proposers in their Modifications.

Cost Reflectivity

Workgroup noted Ofgem's views in its Modification 0621 Decision letter ⁵⁵ relating to Cost Reflectivity (p.14). Workgroup also noted that National Grid have a Licence Obligation to provide cost reflective prices. Workgroup confirmed this is covered under the Relevant Objectives in **Section 5** of this report.

Locational Signal

The Workgroup had mixed views on whether locational signals should be a feature of the RPM which reflected a lack of consensus in Ofgem's Modification 0621 Decision Letter.

Some Workgroup Participants noted that locational signals may provide incentives to connect or increase connections or flows at certain points. The ability for some entry parties to respond to locational signals is limited and therefore the non- inclusion of locational signals is not necessarily out of line with the Code objectives.

Workgroup noted this is covered under the Relevant Objectives in **Section 5** and in the Modifications themselves.

Modifications proposing Postage Stamp (0678A, 0678C, 0678H and 0678J) - Promoting Efficiency and Economic principles associated with network charging

The Proposer of Modification 0678C explained that there are a number of economic principles which are typically associated with the appropriate determination of network charges. These are largely focused on ensuring efficient market outcomes. First, it is argued that network charges should be cost reflective. This means that they should reflect the (forward looking) costs which users impose on the network through a change in their use. This is important to achieve an economically efficient outcome: if charges are cost reflective, users will internalise the network costs which they cause when making a decision about how to use the network. This, in turn, will ensure that overall value chain costs are optimised.

The Proposer of Modification 0678C further clarified that the fact that forward looking costs should be reflected. If there is an historic cost which exists but cannot be changed in any way going forward by different use of the network by shippers, there is no value in terms of economic efficiency in sending a

⁵⁵ Ofgem's Decision Letter on Modification 0621 dated 20 December 2018 can be found here:

<http://www.gasgovernance.co.uk/0621>

signal to shippers about that cost. Cost reflectivity should therefore only relate to new costs which would be created in the future or existing costs which can be avoided in the future as a result of a particular change in use. This argument points to network prices being set predominantly according to forward looking marginal costs, as these are the costs incurred or avoided by incremental use.

However, the Proposer of 0678C further stated that it is important that marginal cost as a concept is interpreted correctly. First, when there is an excess of capacity as a result of reduction in network use over time, then the marginal cost of use may be close to or at zero. Second, it is obviously important that network companies can recover their allowed revenue. It is also clear that efficient cost reflective charges, as defined above, may not recover all costs which have been incurred. Therefore, additional charges are required to recover the full range of permissible costs.

The Proposer of Modification 0678C explained that it is typically argued that such charges should have as an objective creating minimal changes in behaviour relative to a set of efficient charges. This is because, as previously established, there is no efficiency related reason to target historic costs at a particular set of users. By definition, they cannot be “un-incurred” and so there is no point in targeting them at a certain set of users as to do so will change behaviour in a way which reduces efficiency.

Ofgem state in their Modification 0621 Decision Letter⁵⁶ that the RPM methodology

“...has the effect of combining both revenue recovery charges and forward-looking signals into a single capacity-based charge. Given low levels of anticipated new investment in gas network capacity in the near term, we anticipate this type of capacity charge would serve a predominantly revenue recovery function. We also note that in this context, the value of forward-looking signals is likely to be of lesser importance”.

In their Targeted Charging Review (TCR) document in Electricity⁵⁷, Ofgem stated that:

“Cost-reflectivity is less directly relevant for residual charges; however, it is important that residual charges do not unduly distort the signals provided by the forward-looking charges which are intended to be cost-reflective... residual charges do not relate to specific costs that any user imposes”.

The Proposer of Modification 0678C further highlighted that in the TCR debate, Ofgem is similarly clear that cost reflectivity is not a valid objective when considering charges which recover residual revenue. Instead, Ofgem proposes three different principles for assessing approaches to residual charging: *“reducing distortions, fairness and proportionality and practicality considerations”.*

Therefore, in the view of the Proposer of 0678C, in a network where there is spare capacity and low levels of investment, incremental signals are not required, and the network costs can be treated as sunk revenue to be recovered in the least distortive way. Postage stamp capacity charges achieve this.

⁵⁶ Ofgem’s Decision Letter on Modification 0621 dated 20 December 2018 can be found here:

<http://www.gasgovernance.co.uk/0621>

⁵⁷ Ofgem Targeted Charging Review: <https://www.ofgem.gov.uk/system/files/docs/2017/03/tcr-consultation-final-13-march-2017.pdf>

CWD and Market Distortion

The Proposer of Modification 0678C explained that economic theory suggests it is always relevant to set Marginal Cost related prices unless there is spare capacity. The charges from the 0678 CWD Modifications lack cost reflectivity and subsequently risk distortion to competition and wholesale market price. These are discussed below:

- Modification 0678 moves cost recovery from commodity to a capacity basis. This may distort flows if some shippers (with supplies at higher cost entry points) no longer purchase entry capacity to supply gas or if very high capacity costs are passed through to the NBP prices.
 - Postage Stamp capacity charges are less distortive because they are equitable and fair and since they are passed through uniformly to customers, they do not affect competition in gas supply or Cap Mech Auctions. Whereas, CWD Modifications, apply a capacity uplift not on an additive basis as in the current LRMC model but on a “scaling” CWD basis to compound the error of distortion.
- Charges derived from the CWD methodology will only be stable and predictable if the FCC values are stable. Postage Stamp charges exhibit less variance and more predictable. Stable charges will facilitate competition because, all else being equal, greater cost certainty will lower risk and will result in lower cost of capital for Shippers which will reduce barriers to entry and facilitate competition.
- There are unintended consequences of the CWD methodology which affect the distribution of charges to NTS customers and to end consumers. For example, regardless of how the FCC is calculated, the methodology does not demonstrate cost reflectivity for Exit points that are physically close to Entry points, i.e. Peterhead and St Fergus, Pembroke and Milford Haven. This lack of cost reflectivity is a concern given the material impact on customers.
- The CWD methodology also generates high charges for exit and entry capacity in Scotland where there is spare capacity but has relatively lower charges for exit in the South of England where there is relatively less spare capacity.

During the course of the 0678 Workgroups, interested parties were offered the opportunity to provide commentary for inclusion within the Workgroup Report. Workgroup reviewed the commentary and has included it where appropriate within the Workgroup report.

Modification Proposal 0678E - Commentary relating to Ofgem’s Modification 0621 Decision Letter

This section provides the view of the Proposer.

The Proposer of Modification 0678E stated that Ofgem rejected Modification Proposal 0621 and its Alternatives on the basis that it had concluded that they were not compliant with the EU Tariff Code (TAR NC). Ofgem identified three main areas of concern, which are detailed below and considered in respect of Modification 0678E.

- **The creation of Interim Contracts**

The Proposer of Modification 0678C explained that Modification 0678E does not propose including the concept of interim contracts. The EU TAR NC Article 35 provisions which provide for the separate treatment of contracts entered into before 06 April 2017 are adhered to in this Modification 0678E, but not extended to any contracts struck after this date.

- **Transition Period**

The Proposer of Modification 0678C confirmed that a transition period is not proposed in Modification 0678E.

- **NTS Optional Charge**

The Proposer of Modification 0678C stated that an NTS Optional Charge is not proposed in Modification 0678E.

Other areas of concern highlighted in the Ofgem's Modification 0621 Decision Letter:

- **FCC Methodology**

The Proposer of Modification 0678E noted that the Modification proposes that the FCC Methodology sits outside of the UNC, consistent with other methodologies relating to the treatment of capacity. An FCC Methodology has been provided on the Joint Office of Gas Transporters website⁵⁸.

- **Cost reflectivity (Reference Price Methodology)**

The Proposer of Modification 0678E confirmed that Modification 0678E proposes to adopt CWD as the RPM. This approach reflects the counterfactual RPM stated in the EU Tariff Code and incorporates the two primary cost drivers associated with the transportation of gas: capacity and distance. The Proposer believes that the CWD methodology is more cost reflective than the Postage Stamp Methodology, noting that although the NTS is "static", historical investment costs should be allocated on a cost reflective basis. Transmission Allowed Revenues represent an aggregation and apportionment of historical costs across time and as such allow for the rolling forward or sharing of investment costs to all Users of the network in future years. In order to ensure that the historical investment costs, which for reasons stated are treated as ongoing costs, are fairly distributed across Users of the NTS, then the primary drivers for establishing these costs must be reflected in the RPM. These are capacity and distance.

- **Treatment of Historical Contracts**

The Proposer of Modification 0678E stated that the Modification proposes that only Existing Contracts are treated separately, in accordance with Article 35 of the EU Tariff Code. It is proposed that Existing Contracts (with the exception of capacity booked at storage points) are exposed to the Transmission Revenue Recovery Charge which, when such a charge is levied, will limit the difference in the cost of service between Existing Contracts and capacity booked post 06 April 2017. Capacity at storage points is excluded from the Revenue Recovery Charge (both Existing and new contracts) to avoid double charging and is consistent with Ofgem's conclusions in its GTCR⁵⁹.

The Proposer of Modification 0678E confirmed the Modification proposes to net off Existing Contracts to ensure that reserve prices are cost reflective inasmuch as they are set to recover allowed revenue (see earlier point regarding allocation of historical costs). Were Existing Contracts to be included in the derivation of reserve prices, revenue under-recoveries would be generated,

⁵⁸ www.gasgovernance.co.uk

⁵⁹ Ofgem's GTCR documentation can be found here:

www.ofgem.gov.uk/gas/transmission-networks/gas-transmission-charging-review

leading to a non-cost reflective outcome (noting that Existing Contracts would be burdened with a greater proportion of the under-recovered revenue as capacity volumes are fixed).

- **Specific Capacity Discounts**

Ofgem noted that a discount of 50% or above could be applied at storage points. Where a discount of greater than 50% is proposed, sufficient justification must be provided to support the proposal. The Proposer of Modification 0678E confirmed this is provided in the Modification Proposal 0678E. No other discounts have been proposed, which aligns with Ofgem's views, particularly at bi-directional interconnectors.

Modification Proposal 0678F - Commentary relating to Ofgem's Modification 0621 Decision Letter

This section provides the view of the Proposer.

Ofgem rejected UNC Modification Proposal 0621 and its Alternatives on the basis that it had concluded that they were not compliant with the EU Tariff Code. Ofgem identified three main areas of concern, which are detailed below and considered in respect of Modification Proposal UNC 0678F.

- **The creation of interim contracts**

The Proposer of Modification 0678F confirmed the Modification does not propose including the concept of interim contracts. The EU TAR NC Article 35 provisions which provide for the separate treatment of contracts entered into before 06 April 2017 are adhered to in this proposal, but not extended to any contracts struck after this date.

The Proposer of Modification 0678F further confirmed that Modification 0678F proposes establishing the concept of Capacity Surrenders for capacity which qualifies as Unprotected Entry Capacity. In order to qualify for classification as Unprotected Entry Capacity, QSEC must have been acquired in either of the two 2018 QSEC auctions. Subject to the provisions set out in Modification 0678F this capacity can be surrendered. The process of surrendering is unique to this class of capacity and does not mirror in any way the treatment (protection) of Existing Contracts as permitted under EU TAR NC Article 35. As such the surrender mechanism should not be regarded as an extension of Article 35, as was the case with Interim Contracts.

The justification for the surrender mechanism is detailed in the Modification Proposal 0678F, however, it draws upon the observations made in Ofgem's rejection letter regarding Interim Contracts, where it states: *"Relevant parties therefore should have been aware of the effect of the changes to be introduced from 31 May 2019, and hence able to make allowance for the impending change in any contracts entered into after 6 April 2017."*

It is argued by the Proposer of Modification 0678F that the asymmetry in info provided by National Grid in its QSEC Auction Invitations before and after 2018 resulted in participating Users not being made properly, or consistently aware of the changes which will impact their bidding strategies.

- **Transition Period**

A transition period is not proposed in Modification 0678F.

- **NTS Optional Charge**

An NTS Optional Charge is not proposed in Modification 0678F.

Other areas of concern highlighted in the Ofgem Decision Letter follow below.

- **FCC Methodology**

The Proposer of Modification 0678F confirmed that Modification 0678F proposes that the FCC Methodology sits outside of the UNC, consistent with other methodologies relating to the treatment of capacity. An FCC Methodology has been provided on the Joint Office website.

- **Cost reflectivity (Reference Price Methodology)**

The Proposer of Modification 0678F confirmed that Modification 0678F proposes to adopt CWD as the RPM. This approach reflects the counterfactual RPM stated in the EU Tariff Code and incorporates the two primary cost drivers associated with the transportation of gas: capacity and distance. The Proposer believes that the CWD methodology is more cost reflective than the Postage Stamp Methodology, noting that although the NTS is “static”, historical investment costs should be allocated on a cost reflective basis. Transmission Allowed Revenues represent an aggregation and apportionment of historical costs across time and as such allow for the rolling forward or sharing of investment costs to all Users of the network in future years. In order to ensure that the historical investment costs, which for reasons stated are treated as ongoing costs, are fairly distributed across Users of the NTS, then the primary drivers for establishing these costs must be reflected in the RPM. These are capacity and distance.

- **Treatment of Historical Contracts**

The Proposer of Modification 0678F confirmed that Modification 0678F proposed that only Existing Contracts are treated separately, in accordance with Article 35 of the EU Tariff Code. It is proposed that Existing Contracts (with the exception of capacity booked at storage points) are exposed to the Transmission Revenue Recovery Charge which when such a charge is levied will limit the difference in the cost of service between Existing Contracts and capacity booked post 6 April 2017. Capacity at storage points is excluded from the Revenue Recovery Charge (both Existing and new contracts) to avoid double charging and is consistent with Ofgem’s conclusions in its GTCR.

The Proposer of Modification 0678F highlighted that Modification 0678F proposes to net off Existing Contracts to ensure that reserve prices are cost reflective inasmuch as they are set to recover allowed revenue (see earlier point regarding allocation of historical costs). Were Existing Contracts to be included in the derivation of reserve prices, revenue under-recoveries would be generated, leading to a non-cost reflective outcome (noting that Existing Contracts would be burdened with a greater proportion of the under-recovered revenue as capacity volumes are fixed).

- **Specific Capacity Discounts**

Ofgem noted that a discount of 50% or above could be applied at storage points. Where a discount of greater than 50% is proposed, sufficient justification must be provided to support the proposal. This is provided in the Modification Proposal 0678F.

No other discounts have been proposed, which aligns with Ofgem’s views particularly at bi-directional interconnectors

Modification Proposal 0678G - Commentary relating to Ofgem’s Modification 0621 Decision Letter

This section provides the view of the Proposer.

Ofgem rejected Modification Proposal 0621 and its Alternatives on the basis that it had concluded that they were not compliant with the EU Tariff Code. Ofgem identified three main areas of concern, which are detailed below and considered in respect of Modification Proposal 0678G.

- **The creation of interim contracts**

The Proposer of Modification 0678G confirmed that Modification 678G does not propose including the concept of interim contracts. The EU TAR Article 35 provisions which provide for the separate treatment of contracts entered into before 6 April 2017 are adhered to in this proposal, but not extended to any contracts struck after this date.

- **Transition Period**

A transition period is not proposed in Modification 0678G.

- **NTS Optional Charge**

A capacity based NTS Optional Charge (NOC) is proposed in Modification 0678G.

In its rejection letter, the primary reason for rejection of the NOC proposed in the majority of UNC 0621 proposals was that they were commodity based. Modification 0678G is capacity based and therefore in the view of the Proposer, Modification 0678G is consistent with Ofgem's stated position.

The Proposer of Modification 0678G confirmed that the NOC is not available to DN offtakes or storage points, which is a continuation of the current rules. The Proposer believes that only those offtakes where gas is "consumed" and cannot be traded should qualify for NOC, which excludes DN offtakes and storage points.

The Proposer of Modification 0678G stated that the use of MNEPOR is used to derive the (proxy) pipeline costs as this ensures that the costs of developing a bypass pipeline are accurately represented, noting that a bypass pipeline would always be constructed to meet peak day requirements (it not higher). This is balanced by the fact that the NOC rate is derived by dividing the pipeline costs by the FCC, ensuring that the full costs of the pipeline are properly represented and met by capacity bookings.

The Proposer of Modification 0678G noted that Modification 0678G includes the concept of an annual fee. This ensures that the estimated costs of laying and operating a pipeline are met on an annual basis irrespective of utilisation i.e. the fixed or sunk costs associated with the pipeline are recovered from the relevant User(s).

The Proposer of Modification 0678G confirmed that 0678G does not apply a distance cap as no reasonable rationale can be established for setting such a cap. The NOC is self-limiting, in terms of distance, and on the basis that it is cost-reflective and requires a commitment to pay an annual fee ensures that the NOC routes are appropriately utilised. The analysis indicates that the maximum distance under NOC would be 30km (subject to the limitations noted in the analysis section of UNC 0678G).

The level of "cross subsidisation" between NOC Users and non-NOC Users is indicated in the analysis provided in Modification 0678G. As stated, the Proposer of Modification 0678G confirmed that the level "cross subsidy" set out in the analysis is likely to be lower once implemented, as the analysis fails to take into account the impact of Existing Contracts, which in turn will reduce the number of Users wishing to avail themselves of the NOC. On the basis that the NOC is cost-reflective, combined with the application of an Annual Fee, then it is the case that there is no "cross subsidy" between NOC Users and non-NOC Users. It should be noted that the wider benefits of NOC Users using the NTS are not considered as part of the analysis but should not be overlooked. These benefits are stated in UNC 0678G

The Proposer of Modification 0678G confirmed that Ofgem states that there is insufficient evidence that parties would by-pass the NTS in the absence of the NOC. The Proposer contends that in the event that NTS charges are greater than the costs of bypass, then a rational developer/User would construct a bypass pipeline. On the basis that the NOC is cost reflective and is structured in such a way as to provide a reasonable proxy for the costs of laying and operating a bypass pipeline (through the Annual Fee) then developers/Users will make rational economic decisions as to whether to build a pipeline or use the NTS. Where additional burdens are placed on prospective NOC Users to “prove” an intention to build a bypass pipeline, then the costs associated with them are likely to skew the outcome towards bypassing the NTS.

Other areas of concern highlighted in the Ofgem Decision Letter:

- **FCC Methodology**

The Proposer of Modification 0678G confirmed that Modification 0678G proposes that the FCC Methodology sits outside of the UNC, consistent with other methodologies relating to the treatment of capacity. An FCC Methodology has been provided on the JO website.

- **Cost reflectivity (Reference Price Methodology)**

The Proposer of Modification 0678G confirmed that Modification 0678G proposes to adopt CWD as the RPM. This approach reflects the counterfactual RPM stated in the EU Tariff Code and incorporates the two primary cost drivers associated with the transportation of gas: capacity and distance. The Proposer believes that the CWD methodology is more cost reflective than the Postage Stamp Methodology, noting that although the NTS is “static”, historical investment costs should be allocated on a cost reflective basis. Transmission Allowed Revenues represent an aggregation and apportionment of historical costs across time and as such allow for the rolling forward or sharing of investment costs to all Users of the network in future years. In order to ensure that the historical investment costs, which for reasons stated are treated as ongoing costs, are fairly distributed across Users of the NTS, then the primary drivers for establishing these costs must be reflected in the RPM. These are capacity and distance.

- **Treatment of Historical Contracts**

The Proposer of Modification 0678G confirmed that Modification 0678G proposed that only Existing Contracts are treated separately, in accordance with Article 35 of the EU Tariff Code. It is proposed that Existing Contracts (with the exception of capacity booked at storage points) are exposed to the Transmission Revenue Recovery Charge which when such a charge is levied will limit the difference in the cost of service between Existing Contracts and capacity booked post 6 April 2017.

The Proposer of Modification 0678G confirmed that Modification 0678G proposes to net off Existing Contracts to ensure that reserve prices are cost reflective inasmuch as they are set to recover allowed revenue (see earlier point regarding allocation of historical costs). Were Existing Contracts to be included in the derivation of reserve prices, revenue under-recoveries would be generated, leading to a non-cost reflective outcome (noting that Existing Contracts would be burdened with a greater proportion of the under-recovered revenue as capacity volumes are fixed).

- **Specific Capacity Discounts**

Ofgem noted that a discount of 50% or above could be applied at storage points. Modification 0678G proposes a 50% discount at storage points.

No other discounts have been proposed, which aligns with Ofgem's views particularly at bi-directional interconnectors.

Modification Proposal 0678H - Commentary relating to Ofgem's Modification 0621 Decision Letter

This section provides the view of the Proposer.

The Proposer of Modification 0678H confirmed that Ofgem rejected UNC Modification Proposal 0621 and its Alternatives on the basis that it had concluded that they were not compliant with the EU Tariff Code. Ofgem identified three main areas of concern, which are detailed below and considered in respect of Modification Proposal 0678H.

- **The creation of interim contracts**

The Proposer of Modification 0678H confirmed that Modification 0678H does not propose including the concept of interim contracts. The EU TAR NC Article 35 provisions which provide for the separate treatment of contracts entered into before 06 April 2017 are adhered to in this proposal, but not extended to any contracts struck after this date.

- **Transition Period**

A transition period is not proposed in Modification 0678H.

- **NTS Optional Charge**

A capacity based NTS Optional Charge (NOC) is proposed in Modification 0678H.

In its rejection letter, the primary reason for rejection of the NOC proposed in the majority of UNC 0621 proposals was that they were commodity based. The Proposer of Modification 0678H confirmed that Modification 0678H is capacity based and therefore is consistent with Ofgem's stated position.

The Proposer of Modification 0678H confirmed that the NOC is not available to DN offtakes or storage points, which is a continuation of the current rules. The Proposer believes that only those offtakes where gas is "consumed" and cannot be traded should qualify for NOC, which excludes DN offtakes and storage points.

The Proposer of Modification 0678H the use of MNPPOR is used to derive the (proxy) pipeline costs as this ensures that the costs of developing a bypass pipeline are accurately represented, noting that a bypass pipeline would always be constructed to meet peak day requirements (it not higher). This is balanced by the fact that the NOC rate is derived by dividing the pipeline costs by the FCC, ensuring that the full costs of the pipeline are properly represented and met by capacity bookings.

The Proposer of Modification 0678H confirmed that Modification 0678H includes the concept of an annual fee. This ensures that the estimated costs of laying and operating a pipeline are met on an annual basis irrespective of utilisation i.e. the fixed or sunk costs associated with the pipeline are recovered from the relevant User(s).

The Proposer of Modification 0678H highlighted that Modification 0678H does not apply a distance cap as no reasonable rationale can be established for setting such a cap. The NOC is self-limiting, in terms of distance, and on the basis that it is cost-reflective and requires a commitment to pay an annual fee ensures that the NOC routes are appropriately utilised. The analysis indicates that the

maximum distance under NOC would be 30km (subject to the limitations noted in the analysis section of UNC 0678H).

The Proposer of Modification 0678H noted that the level of “cross subsidisation” between NOC Users and non-NOC Users is indicated in the analysis provided in Modification 0678H. As stated, the level “cross subsidy” set out in the analysis is likely to be lower once implemented, as the analysis fails to take into account the impact of Existing Contracts, which in turn will reduce the number of Users wishing to avail themselves of the NOC. On the basis that the NOC is cost-reflective, combined with the application of an Annual Fee, then it is the case that there is no “cross subsidy” between NOC Users and non-NOC Users. It should be noted that the wider benefits of NOC Users using the NTS are not considered as part of the analysis but should not be overlooked. These benefits are stated in Modification 0678G.

Ofgem states that there is insufficient evidence that parties would by-pass the NTS in the absence of the NOC. The Proposer of Modification 0678H contends that in the event that NTS charges are greater than the costs of bypass, then a rational developer/User would construct a bypass pipeline. On the basis that the NOC is cost reflective and is structured in such a way as to provide a reasonable proxy for the costs of laying and operating a bypass pipeline (through the Annual Fee) then developers/Users will make rational economic decisions as to whether to build a pipeline or use the NTS. Where additional burdens are placed on prospective NOC Users to “prove” an intention to build a bypass pipeline, then the costs associated with them are likely to skew the outcome towards bypassing the NTS.

Other areas of concern highlighted in the Ofgem Decision Letter:

- **FCC Methodology**

Modification 0678H proposes that the FCC Methodology sits outside of the UNC, consistent with other methodologies relating to the treatment of capacity. An FCC Methodology has been provided on the JO website.

- **Cost reflectivity (Reference Price Methodology)**

The Proposer of Modification 0678H confirmed that Modification 0678H proposes to adopt Postage Stamp as the RPM. This approach reflects the fact that the NTS is not expected to expand and as such forward looking investment signals are no longer relevant. The implementation of a Postage Stamp RPM overcomes the numerous limitations and potential distortions associated with CWD, or LRMC.

The Proposer of Modification 0678H highlighted that Postage Stamp is a simplistic methodology which apportions a share of Allowed Revenue equally to all points on the NTS. Such an approach is particularly valid when applied to a meshed network where entry and exit points are reasonably spread i.e. distances between entry and points are not significantly different, on average.

Ofgem notes in its rejection letter of Modification 0621 a number of limitations with CWD, in particular that the use of

“...distance is unlikely to generate prices that are accurately cost-reflective of the physical transportation routes”.

- **Treatment of Historical Contracts**

The Proposer of Modification 0678H noted that Modification 0678H proposed that only Existing Contracts are treated separately, in accordance with Article 35 of the EU Tariff Code. It is proposed that Existing Contracts (with the exception of capacity booked at storage points) are exposed to the Transmission Revenue Recovery Charge which, when such a charge is levied, will limit the difference in the cost of service between Existing Contracts and capacity booked post 06 April 2017.

The Proposer of Modification 0678H noted that Modification 0678H proposes to net off Existing Contracts to ensure that reserve prices are cost reflective insomuch as they are set to recover allowed revenue (see earlier point regarding allocation of historical costs). Were Existing Contracts to be included in the derivation of reserve prices, revenue under-recoveries would be generated, leading to a non-cost reflective outcome (noting that Existing Contracts would be burdened with a greater proportion of the under-recovered revenue as capacity volumes are fixed).

- **Specific Capacity Discounts**

Ofgem noted that a discount of 50% or above could be applied at storage points. Modification 0678H proposes a 50% discount at storage points. No other discounts have been proposed, which aligns with Ofgem's views particularly at bi-directional interconnectors.

4.12. Regulatory Impact Assessment

The Authority will consider whether a Regulatory Impact Assessment is required.

Some Workgroup Participants noted that it was felt the RIA was a Statutory Requirement⁶⁰ for an issue as important as this and as such if this process step was not carried out it would expose the Authority to Judicial Review. Workgroup sought urgent clarification on whether the RIA would be carried out.

4.13. Impact Analysis

This section covers analysis, and tools available to stakeholders that covers data and analysis covering UNC0678/A/B/C/D/E/F/G/H/I/J.

List of analysis received

- National Grid
 - 0678 and additional data
- Vermillion
- RWE – 0678A
- Centrica – 0678B
- SSE – 0678C
- South Hook - 0678J

Other analysis can be found in the Modifications themselves.

⁶⁰ Small Business, Enterprise and Employment Act 2015.

http://www.legislation.gov.uk/ukpga/2015/26/pdfs/ukpga_20150026_en.pdf

National Grid analysis and other data

Workgroup noted the analysis/data provided by National Grid⁶¹ for other stakeholders to model 0678 sensitivities. This consisted of

1. Data extracts that can be used by all interested stakeholders of 0678 illustrative modelling including comparisons to current prices and current revenue distribution. This includes:
 - The source model used to produce the indicative prices the CWD 0678 Sensitivity Model v3.1
 - Revenue comparisons
 - Tariff comparisons
 - Indicative FCC input and resulting output data from the FCC methodology
 - Non-transmission services sensitivity model
 - Models for UNC0678 provided by National Grid available here:
www.gasgovernance.co.uk/0678/models
 - Data here: www.gasgovernance.co.uk/0678/analysis
2. Optional Charge modelling as a general piece to summarise across all those proposals that include an Optional charge (Modification 0678D/G/H/I/J) – including 0678I that contains a wheeling charge.
 - The Optional charge analysis has been produced with the Proposers of the Modifications that propose an Optional Charge, which includes the wheeling charge and does not include the specific discount proposed under Modification 0678I (Ireland Security Discount).
 - This analysis has been produced to help support Proposers of Modifications 0678D/G/H/I/J in the ability to present their analysis for their Modifications, and for stakeholders to understand potential impacts of proposals that include optional charges.

These items (1) and (2) have been provided to assist stakeholders and other Modification Proposers in calculating and presenting either their own assessments of potential impacts from 0678 or from the alternatives.

If Proposers of Alternatives or other stakeholders provided models and or additional / supporting analysis or data for their modifications these have been made available on the same webpage or as part of their proposal.

As part of 0678 Analysis, the summary (1) contained in Appendix 3 of UNC0678 covers the following:

- A comparison of the capacity and revenue recovery charges (unadjusted and adjusted for anticipated revenue shortfalls in the illustrative charges). This is provided for Entry and Exit.
 - The purpose of this is to illustrate the emphasis in the methodology of the RPM which will determine charges that aim to recover more of the required revenue. It also shows

⁶¹ National Grid Analysis: <https://www.gasgovernance.co.uk/0678/Analysis>

the impact the revenue adjustment has on the current methodology, which is far less pronounced in the proposed CWD than the version of LRMC applied currently.

- Complemented by the tools, it enables a view to be given on the impact of the key drivers of changes which will be FCC and revenue values.
- Using the CWD modelled under Modification 0678, the spread of prices between the highest and lowest is reduced from current which it to be expected and also it should be more evident when comparing the combined charts. This adds the current commodity to the current published capacity charges for current which shows the significant impact the revenue recovery charges has and also that when combined the overall charge for any unit of capacity booked and used (i.e. booked and flowed against) is likely to be lower and more consistent year to year under CWD.
- **Comparison of anticipated Revenue Collection** – comparison of the potential revenue distribution across all Entry and Exit point types modelled across 5years compared to the current actual paid charges from gas year 2017/18.
 - The charges mentioned above relate to published charges for “current”. In practice there are discounts as a result of the relative capacity discounts and the NTS Optional Commodity charge which reduce the amount paid for those availing of each. In order to illustrate this, the revenue values can be seed showing the total amount paid by the types of entry and exit point. This shows the under recovery driven from discounted capacity requiring high commodity collections.
 - Under Modification 0678 the methodology puts more emphasis on recovering revenues from capacity charges. With lower interruptible / off-peak discounts the revenues from capacity are increased as a proportion likely to require lower revenue recovery amounts to be collected from revenue recovery charges.
 - The revenue profile across the years modelled as mentioned in (2) above show how this is relatively consistent without significant variation year to year. Where this is evident it will be driven and influenced largely by the FCC changes and / or the allowed revenue values.
 - Revenue values in the CWD Sensitivity Model version 3.1. Revenue values are different in each year up to and including 2021/22. For 2022/23 onwards they use the same value.
- Overall, the analysis in Appendix 3 of Modification 0678 shows the potential distribution of prices and revenues based on the methodology with Beach terminals paying the largest proportion for Entry and DNs paying the largest proportion for Exit.
- When compared to current charges on Entry, the overall distribution of which categories of User pay which proportions is the same result in terms of overall transmission charges recovered from a specific point type. For Exit, it can be considered the same, however the DN Shippers no longer pay commodity with the resulting capacity amounts paid by DNs. For all other User types, there is naturally some rebalancing across the other Entry and Exit point types as the 0678 proposals have fewer discounts and alternative charges than the current regime, which may be used across some of these types.

Consistent presentation of analysis (formatting) is important for comparison purposes. From the start of Workgroups on 29 January 2019 to the end of the first series of Workgroups on 06 March, the Joint Office and Workgroup Participants consistently requested analysis for Modification 0678, on which to make assessments of the impact of the Modification 0678 and its Alternatives.

From the outset, National Grid, stated that analysis would be provided for Modification 0678 only. National Grid also made it clear that when parties wishing to have access to data which was not available and was required for other analysis approached National Grid for assistance it would be given.

Analysis and Sensitivity Tool for 0678B

Workgroup noted the Proposer of Modification 0678B had provided a sensitivity tool for 0678B and thanked the Proposer for this. This analysis helped inform some of the OCC analysis carried out and published by National Grid.

This analysis can be found here: www.gasgovernance.co.uk/0678/Models

Future years analysis

Some Workgroup Participants noted that the Allowed Revenue and FCC values for 2021 and the years beyond were shown in the analysis by National Grid (www.gasgovernance.co.uk/0678/Analysis) to be stable, as are the FCC values.

Some Workgroup Participants highlighted that this appears to provide stability which may be misleading.

Some Workgroup Participants noted that the only variable input to the calculation of the charges for reference prices is the FCC, once the Allowed Revenue is set (apart from Existing Contracts which will gradually expire). Therefore, there is still value in the analysis results given by National Grid as they merely demonstrate how the charges will be calculated and the sensitivity of the charges to the FCC.

National Grid provided a reminder that the sensitivity tool and the analysis provided therein are given in order to illustrate subtle variations based on a range of scenarios (see description at the beginning of **Section 4.13**).

Workgroup Participants noted that the sensitivity tools provide results and analysis that are dependent on the input selected. Behavioural aspects are not provided for.

Workgroup Participants noted that different parties will have different booking strategies (DNs will book in line with 1 in 20, others will have different commercial goals to achieve).

Workgroup Participants noted that the package of documentation which Panel and Ofgem will need to use for assessment of the Modifications includes the Workgroup report (which contains all the Modifications), and all the consultation responses. This is standard process.

Workgroup examined the graphs relating to Exit prices in the 0678 v4.0 Appendix 3, on p.42⁶²

Both graphs show Published vs Calculated Tariffs. The second graph appears to show future Exit prices sitting below current levels however some Workgroup Participants noted that this may be misleading since the Allowed Revenue in those years is different. Other Workgroup Participants noted that the

⁶² Modification 0678 is published here: www.gasgovernance.co.uk/0678

graph shows average combined Exit prices (capacity + commodity) which are expected to be lower for 2018 using CWD, as compared with 2018/19 LRMC average capacity prices. Other Workgroup Participants noted that the comparison is not helpful because capacity is being compared with capacity and commodity (effectively assuming 100% Load Factor, 'capacitising' the commodity charge). Transparency is key here.

National Grid responded that the graph (on p.42 of Modification 0678 v4.0) shows data against published tariffs for 18/19. The payable prices that are actually levied can differ due to the discounting arrangements under the prevailing framework such as the application of off-peak capacity discount and the use of the NTS optional charge. Payable prices as a result of these discounts and the nature of setting the revenue adjustment in Exit capacity charges drive a large commodity charge.

The two charts on Exit show both the capacity and commodity as published tariffs, which may not be for all parties but do represent the published calculated tariffs in line with the current framework. As a result of assumptions for these discounts in the current framework in setting charges, it demonstrates the impact on capacity and commodity combined and the potentially significant effect discounts can have. Under the CWD years, as modelled, the adjustment, is considerably lower due to the nature of how capacity charges are set, and the anticipated revenue shortfall is accommodated.

Comparison of anticipated Revenue Collection

Workgroup Participants noted that comparing prices between different methodologies doesn't explain how revenues will necessarily be recovered by National Grid. For example, different patterns of chargeable capacity can be expected as a result of the non-availability of zero priced capacity should any of these Modifications be implemented.

Workgroup Participants then considered the tables on p.43 of Modification 0678 v4.0⁶³.

Some Workgroup Participants noted that the understanding of this data requires background information⁶⁴ on the flow or capacity booked at each point so that proportionality of charges can be assessed.

These tables show that by taking into account the aforementioned discounts (interruptible/offpeak and 'shorthaul') this is the resulting effect on the capacity and the commodity revenue collected. In addition, these are put into context by the data in tables on p.46.

Optional Capacity charge analysis

National Grid's Optional Charge analysis v.1.1 was presented to Workgroup. Some Workgroup Participants noted that all of the 'shorthaul' options on the table under the 0678 Modifications which offer an optional charge, they appear to result in a lower redistribution of the charges to those not on the optional type charge, as compared with the current charging methodology.

⁶³ Modification 0678 is published here: www.gasgovernance.co.uk/0678

⁶⁴ This information can be found in a file called Analysis Modification 0678 vs Current Revenue for workgroup (21 March 2019) here: www.gasgovernance.co.uk/0678/Models

The Optional Charge Analysis document v1.3⁶⁵ has been produced by National Grid in support of the 0678 Workgroup. It is intended to provide indicative information regarding the potential impact of any optional charges proposed or lack thereof. Due to the commercially sensitive nature of NTS Optional Commodity Charge (NTS OCC) data, this analysis could only be undertaken by National Grid on behalf of Proposers with optional charge components within their respective modifications.

This analysis is structured in the following way:

- a. Description of the assumptions that have been made in order to carry out a consistent method of analysis
- b. Some non-modification specific analysis related to actions raised in UNC0678 Workgroup and UNC0670R Workgroup.
- c. Analysis of any specific UNC0678 modifications that contain an optional charge, which consists of:
 - i. an assessment of the number of routes applicable
 - ii. the potential under recovery of transmission services revenue the specified charges could generate
 - iii. the indicative impact this could have on reference and reserve prices for the relevant RPM and the same approach for non-transmission charges.

According to National Grid's analysis under Modification 0678B all existing routes might be expected to continue to utilise the optional charge, whereas under Modifications 0678D/G/H and Modification 0678J, for 19/20 and 20/21, the present analysis is showing that only 17 or 18 of the c.60 offtakes continue to avail themselves of the optional charge. All of these have a distance under 30km. Similarly, under Modification 0678I eight offtakes continue to avail themselves of the optional charge.

Workgroup noted that for Users of the current NTS Optional Commodity Charge, should they no longer be able to access such a product, the impact would be significant, but Workgroup was unable to assess the impact on individual sites (with concomitant subsequent consumer impact) due to both timing of this Workgroup process and the commercial sensitive nature of OCC data. Workgroup Participants expect Ofgem to perform a more detailed assessment in this area.

Other Workgroup Participants did not agree with the above two paragraphs, because only the existing 2017-18 routes were considered. New, potential routes were not considered, despite potentially being more attractive to some Users than the standard tariffs. This especially applies to Modification 0678B, where analysis showed the same routes still being attractive with no consideration of new routes.

Other Workgroup Participants noted that the number of additional new routes is not known at this point.

Workgroup Participants noted that there is no consideration in the optional charge analysis of the effect of lower priced Existing Contracts which may lead to a lower uptake of the optional capacity product.

Workgroup noted that Modification 0678B has an iterative process within its optional charge calculation which leads to a different effect on the impact to prices. A Workgroup Participant noted that, due to the nature of the data, it is not possible for Workgroup to examine the model behind this analysis and thus

⁶⁵ National Grid's Optional Charge Analysis Report can be found here:

<http://www.gasgovernance.co.uk/0678/analysis>

intuitively understand the percentage differences applied to reference prices between the Modifications with an optional charge.

Some Workgroup Participants noted that Modifications 0678D, 0678G, 0678H and 0678J would apply to significantly shorter distances than currently and would result in much lower level of Revenue under Recovery.

Some Workgroup Participants noted that these solutions better reflect the cost of these Users bypassing the NTS which then minimises the risk of bypass. Therefore, this aligns better with the requirement for cost reflectivity stated by Ofgem in the Modification 0621 Decision letter.

One Workgroup Participant disagreed that the risk of bypass is minimised, noting that opportunities for bypassing the NTS currently exist, especially via utilisation of offshore pipeline infrastructure (e.g. the SEAL Pipeline).

Modification 0678I includes a Wheeling Approach which is applicable across 0km distance as outlined by the distance matrix contained in the CWD sensitivity tool.

The Proposer of Modification 0678I agrees with National Grid as Proposer of Modification 0670R⁶⁶, that a wider consideration, beyond the scope of the 0678 Alternatives, is required for the management of the avoidance of inefficient bypass of NTS

Some Workgroup Participants noted that since 75% of Entry Capacity is under Existing Contracts, then this must be taken into account when assessing the use of Existing Contracts for 'shorthaul' as in those cases people pay the 'shorthaul' entry charge instead of the Existing Contract price.

Workgroup Participants noted that National Grid responded to Ofgem's request for additional information on the Median and Mode for the NTS OCC distance, though there was some discussion about the applicability of the mode in this context.

Initial Analysis of Modification 0678A

Workgroup Participants thanked the Proposer of Modification 0678A for their analysis on 0678A received on 04 March 2019. The analysis showed Revenue Recovery, highlighting the differences for Entry and Exit Points (distributional analysis). This material can be found under the Workgroup meeting 04 March 2019⁶⁷. This analysis was based on the Sensitivity Tool provided by National Grid and published on 25 February 2019 (v2). Workgroup Participants noted the difference from a CWD vs PS stance, relating to the distributional impact for 2019/20. Workgroup Participants noted that it would be ideal to extend this analysis into subsequent years.

Postage stamp reduces charges at the periphery of the system and increases them towards the centre.

Analysis from Vermillion based on Sensitivity Tool v2

Workgroup Participants thanked Vermillion for the analysis received by Workgroup on 04 March 2019. This can be found here: www.gasgovernance.co.uk/0678/Analysis

⁶⁶ Modification 0670R www.gasgovernance.co.uk/0670/

⁶⁷ <http://www.gasgovernance.co.uk/0678/040319>

The analysis showed Entry and Exit Revenue, FCC (kWh/d) and Average Tariff (p/kWh/d) for 2019/20 and beyond: 2020/21 to 2023/24. Slides four and five of the Vermilion analysis have the April 2019 TO exit commodity charge listed for comparison. This material can be found under the Workgroup meeting 04 March 2019⁶⁸. This analysis was based on the Sensitivity Tool provided by National Grid and published on 25 February 2019 (v2).

Workgroup noted in the Entry Revenue 2019/20 chart found on the second slide that Existing Contracts represented 17% of revenue with Beach Terminals representing 75%, IPs representing 7% and Storage negligible ~1%. Workgroup noted in the Exit Revenue 19/20 chart, found on the third slide, that most of the Exit revenue (over ~66%) is derived from the DNs; power stations represent the next largest segment.

Some Workgroup Participants discussed whether the analysis in Exit Revenue 19/20 chart, found on the third slide, represents what might actually happen. Calculation of prices using the FCC then allows calculation of revenue utilising the FCC again; this assumes the flows equal to capacity indicated in FCC. National Grid further explained that the outputs from the sensitivity tool are provided in good faith and provide an illustration limited by the inputs. Individual shippers should understand and use the model at their own risk.

Some Workgroup Participants noted that the revenue distribution charts are useful however they were based on a premise that shippers flow to the same booking under which FCC was calculated. In reality historical flows would be a better indicator of longer-term bookings over the five years. Going forward Users will optimise their capacity bookings to more accurately reflect utilisation.

Some Workgroup Participants did not agree that historical flows would be a better indicator because of the risk of substitution.

Workgroup Participants pointed out that the FCC approach utilises five different numbers, one of which is supply and demand.

Some Workgroup Participants noted that DNs will be booking to meet their full 1 in 20 peak day levels and that booking is likely to be flat across the year. DN Workgroup Participants confirmed this is required.

Some Workgroup Participants noted that use of the greatest of the five data sets in FCC requires justification.

National Grid noted for Workgroup that the greatest value is used to capture Capacity paid for or flows.

Workgroup noted that this analysis showed that with 50% storage discount and 80% storage discount the increase effect for 19/20 and 20/21 on other charges is between 1% and 2%, with CWD giving a slightly smaller effect than PS within this range. Proposers of 0678, 0678E and 0678F noted that this is consistent with the analysis contained within these Modifications, showing around 1% increase effect on other charges. In terms of materiality, the Proposers of 0678E and 0678F commented that the difference in effect moving from a 50 to 80% storage discount amounts to approx. £7mn decrease for 19/20 in revenue recovered from Entry and Exit storage points.

⁶⁸ <http://www.gasgovernance.co.uk/0678/040319>

A Workgroup Participant highlighted that from the charts one can see that the price differential between the average Existing Contract price (0.0036p/kWh adjusted price) at all sites under CWD for 19/20 and 20/21 (see slide 7 of the Vermilion analysis slide pack⁶⁹) is a factor of ten lower than the average Beach terminal price for new capacity (0.0402p/kWh adjusted price). Under PS the same order of magnitude applies (see slide 10 of the Vermilion analysis slide pack⁷⁰).

Analysis provided by Storengy to support Modification 0678F

The Workgroup considered the analysis provided by Storengy noting that the outputs are relevant to Modifications 0678E and 0678F. The key information is set out in Table 3 given in Appendix 2 of the Storengy analysis document which can be found here: www.gasgovernance.co.uk/0678/Analysis

The comparison between the effect on NTS revenue of the 50% and 80% storage discount is a decrease of approx. £2.5mn which represents around 0.3% of Total transmission services revenue for 19/20. The reason for the difference to the figures highlighted by Vermilion above is that the Storengy analysis is based on actual 2018 historical flows but adding in a change for Stublach to account for a move from 10 caverns to 20.

Workgroup noted the impact of the surrender of capacity mechanism which is specific to Modification 0678F, this enables up to £1.3mn decrease in committed NTS revenues paid for at the Cheshire Entry Point for 2019/20. Storengy estimates this would be similar in future years.

Workgroup Participants noted that this revenue would need to be recovered from other points, Modification 0678F provides for National Grid to adjust this through the RPM.

Workgroup Participants also noted that Modification 0678F actually provides for capacity surrender at all Entry capacity points for capacity bought in 2018 QSEC auctions. The analysis in Modification 0678F Appendix 3 shows that the effect of this could be up to a maximum of £41mn over 16 years (based on floating prices, £2.5 - £3mn per year representing around 1% of Entry NTS recoverable revenues). The actual effect would be dependent on the amount surrendered and subsequent bookings.

Some Workgroup Participants noted that this will result in more uncertainty around reference prices in future years (due to unknown quantity to be surrendered).

Some Workgroup Participants noted there was a possibility that the definition of the process may need some clarification in the Modification 0678F.

Analysis for Modification 0678I

Gazprom as Proposer of the Modification 0678I confirmed that it would share the results of its internal analysis directly with Ofgem but not to a wider audience as it was confidential. Impacted stakeholders were encouraged to do likewise.

The Proposer of Modification 0678I noted two areas for Workgroup to consider, these are felt to be key analysis relating to 0678I in the view of the Proposer. The first was the conclusions of Gazprom's current analysis on the potential impact of implementing Modification 0678 on the Republic of Ireland, Northern

⁶⁹Vermilion analysis slide pack: www.gasgovernance.co.uk/0678/Analysis

⁷⁰Vermilion analysis slide pack: www.gasgovernance.co.uk/0678/Analysis

Ireland and Isle of Man gas markets, as highlighted in Appendix 3 of Modification 0678I which is entitled 'Ireland Security Discount distributional impact'. The increased cost to these markets is estimated to be between ~£15m (0.022p/KWh) to ~£30m (0.043p/KWh) (based on 2017/18 figures) however this does not consider the impacts on the Integrated Single Energy Market.

Alongside this, the Proposer of 0678I provided an overview of the distributional impact for Modification 0678I of the Ireland Security discount (95%) on other NTS exit points (expanding on information given in Appendix 3 of Modification 0678I). The additional cost to the GB system can be modelled by all Users using the CWD model. In the 0678I analysis it has been assumed that all volumes to Moffat would qualify for a discount. The difference in revenue recovery that would be to be recovered by all other exit points (based on the FCC) is 0.000695p/kwh.

It is the view of the Proposer of 0678I that this is a minimal and insignificant cost to achieve wider European wider security of supply objective and ensuring the impact on marginal supplies can have on consumer welfare is considered as mentioned in Baringa's Modification 0621 analysis.

The proposer has also referenced the following analysis in **Appendix 4** of the Modification 0678I.

- GNI (the Republic of Ireland TSO)
- CRU (the Irish regulator)
- Oxford institute for Energy Studies (analysis that can be applied to the potential trading impacts of increasing the cost of transportation on the NBP).

Some Workgroup Participants noted that the Consumer Welfare referred to above was considering Irish consumers.

Ofgem clarified that when a Modification is submitted, it is compared against the GB market Relevant Objectives and also Ofgem's requirements under the TAR NC; neighbouring NRAs will be informed appropriately as part of the Article 26 consultation. Neighbouring NRAs along with any other party can respond to the consultation appropriately.

The Proposer of Modification 0678I reminded Workgroup that TAR NC is partly aimed at consideration of security of supply of Member States.

4.14. Consumer Impacts

There will be impact on different consumer groups, but the Allowed Revenue collected by National Grid NTS will not change.

A Workgroup Participant noted the Baringa analysis associated with the Ofgem 0621 Decision Letter⁷¹ (p.6) which states:

".... A useful message from our modelling results is that levying higher charges on marginal supplies can have a significant impact on wholesale gas prices and therefore on consumer welfare."

Workgroup noted that the effect on consumer bills is one of the highlighted aspects of analysis provided by the Proposer of Modification 0678C; this is contained in the Modification 0678C.

⁷¹ Ofgem's Decision Letter on Modification 0621 can be found here: www.gasgovernance.co.uk/0621

Workgroup noted the scale of change from the current regime to any new charging methodology which removes commodity-based charging, either moving to CWD or PS and, in addition, the removal of discounts (under the current regime, shippers are able to buy capacity for free).

The Proposer of 0678C offered the following assessment of consumer impact (supporting information to the below five statements is provided in UNC Modification 0678C Appendix 4):

1. CWD results in charges which on average are higher at beach terminals than other entry point groups. This might be distortionary and result in higher priced NBP gas as charges are incrementally passed through on a marginal basis or cheaper sources of gas being frozen out of the market.
2. Existing contracts have significantly lower charges than new entrants and this might be discriminatory.
3. Scotland has higher DN charges than other points, this is not cost reflective given that most gas used to supply Scotland will enter at St Fergus and this may be politically sensitive.
4. St Fergus has higher entry costs under CWD than PS, given that Norway is a marginal supplier to GB this has the potential to increase NBP gas price and therefore costs to customers by up to £10/year /customer or £190 M/year.
5. Peterhead has higher exit costs under CWD than PS, given that it may set the marginal clearing price in a future Capacity Mechanism auction this has the potential to impact customer levies therefore costs to customers by up to £5/year /customer or £117 M/year.

Workgroup noted the significant task of determining an overall picture of the effect on consumers, whilst noting that the total amount recovered by National Grid is not changing.

On 10 April 2019 Workgroup noted the following:

- Geographical changes (distributional impacts) associated with all Modifications
- A shift to recovery from capacity charges (rather than commodity). Some of this is covered in the DN impact analysis provided in **Section 4.15** below.
- All recipients of the NTS charges will be impacted immediately.
- The regulated entities have a particular mechanism of how this is passed through. It can reasonably be assumed that other parties will pass this through immediately or very quickly. DNs have a two-year lag in when they can pass the costs on to customers (interest charges may come into play here).
- NTS Direct Connects (NTS customers) will see a more immediate impact of changes to charges from the effective date as they have pass-through of costs.
- A reduction in commodity charges will be seen immediately and will potentially affect the whole market, depending on assumptions.
- The effect of uncertainty and the impact of changes on both the wholesale gas and electricity markets is unknown.
- Security of both supply and price could be impacted by changing tariffs. Transportation prices impact the hub price therefore if the cost to import into the GB market increases, this will impact wholesale prices.
- The future for Storage facilities is uncertain, the effects of changes to the charges on these may affect their economic viability (both existing and any potential future facilities), noting there are other factors at play for Storage facilities.

- Flows across Interconnection Points and from LNG terminals may change as a result of the changes in tariffs, and
- Behavioural/market impacts are expected but are extremely difficult to predict.

4.15. DN impact

DN Workgroup Participants confirmed by email that DN analysis would begin upon receipt of the final FCC Methodology from National Grid on 15 March 2019. A full presentation of the Gas Distribution Networks (DNs) analysis, observations and concerns on potential charge changes is published here: www.gasgovernance.co.uk/0678/Analysis. Workgroup briefly reviewed this analysis on 02 April 2019.

The below commentary should be read in conjunction with the analysis itself.

The four DN Workgroup Participants also provided the following as a summary of this work.

- A. Cadent,
- B. WWU,
- C. SGN and
- D. NGN.

The Sensitivity Tool v3.0 provided by National Grid (published on the Joint Office website www.gasgovernance.co.uk/0678/Models), has been utilised to perform the DN's analysis. The impacts shown in this **Section 4.15** reflect the charging year March to April.

A. Cadent

Cadent has undertaken analysis to assess the domestic bill impact when comparing the current charging regime (rates published by National Grid in May 2018) against three modifications raised by the industry. The three modifications that have been analysed are; Modification 0678 which utilises the CWD approach; Modification 0678A containing the Postage Stamp approach and; Modification 0678E, which again uses the CWD approach but applies an 80% discount for storage sites.

The domestic bill impact has been conducted for the four Cadent networks:

- East of England,
- London,
- North West and
- West Midlands.

The analysis has been conducted on the basis that Cadent will absorb National Transmission System (NTS) prices changes within the relevant Formulae Year (March – April). Costs are then assumed to be pass through, where the supplier passes costs to the customer. Customers' bills are then impacted 2 years later as per the two-year lagged mechanism.

Modification 0678 vs Current Methodology

When comparing Modification 0678 against the current Charging Methodology it can be observed that the average costs per customer increase by £2.26 in charging year 2021/22 and £3.10 in 2022/23 for the East of England Network. However, for London, North West and West Midlands we see the opposite effective with prices decreasing with impact more pronounced in the North West. For 2021/22 and 2022/23 London shows a decrease of £0.52 and £0.84, North West decreases by £8.92 and £12.54 and West Midlands declines by £6.04 and £8.39.

Modification 0678A vs Current Methodology

The Postage Stamp methodology demonstrates a split increase and decrease bill impact across the four networks. The East of England and London both show customer bills increasing from 2021/22 onwards. In 2021/22 domestic bills are shown to increase by £5.15 and £6.86 in 2022/23 for the East

of England. With London the cost increase is more minimal, £0.44 and £0.47 in the respective years. The North West indicates a reduction in bills by £8.78 and £12.30 for the same years, proving to be the biggest impact. Finally, West Midlands also shows a decrease in bills by £3.61 and £5.09 for respective years.

Modification 0678E vs Current Methodology

This Modification utilises the CWD approach with an 80% discount for storage. As distance is not utilised, WWU sees flat prices across all exit points, which has a varying impact at network level. For the East of England, WWU sees domestic bills increase by £2.52 and £3.23 in 2021/22 and 2022/23 respectively. With London there are smaller downward movements in domestic prices of £0.24 and £0.46. North West shows the greatest decrease with a projection of bills moving down by £8.62 and £12.13 in the respective years. In comparison West Midlands shows declines of £5.83 and £8.09.

B. WWU

WWU has carried out analysis on the impact of Modification 0678 and Modification 0678 using a Postage Stamp Methodology. Currently DNs pay NTS exit capacity charges and shippers on DN networks pay NTS exit commodity charges. DNs recover NTS exit capacity charges from Shippers. Under Modification 0678, there will be a change in methodology from LMRC to CWD and NTS commodity charges to shippers will cease. All NTS exit revenue from customers on DN networks will therefore be recovered by means of NTS exit capacity charges to DNs, who will in turn recover this from their charges to Shippers by means of capacity charges. The impact of these factors in WWU's costs can be seen in the analysis below which shows forecasted NTS exit capacity charges for WWU under the base case scenarios of a Proposal with no NTS optional charge and no use of interruptible capacity by Shippers.

Table 12: Cost Forecast for WWU

Cost Forecast	19/20	20/21	21/22	22/23	23/24	24/25
Current regime	25.92	27.73	24.34	28.13	31.94	31.94
MOD 678 CWD	26.65	35.14	37.74	38.44	39.14	39.79
MOD 678 PS	24.75	30.46	32.17	32.54	32.92	33.23

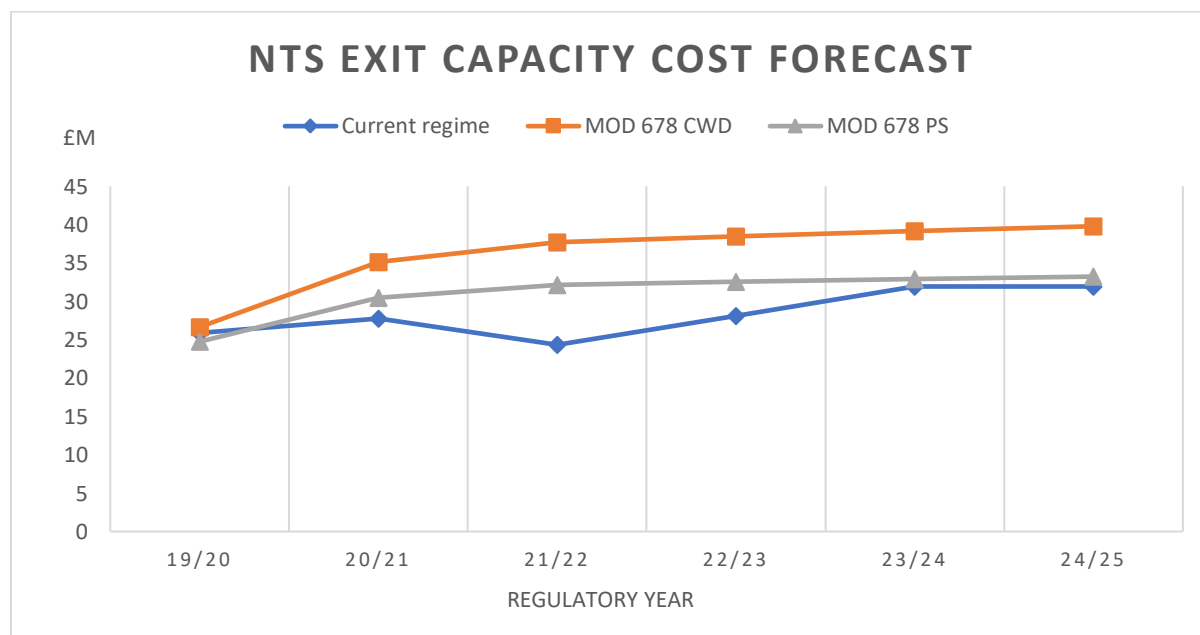


Figure 2: NTS Exit Capacity Cost Forecast - WWU

As can be seen from the above analysis in **Table 12** and **Figure 2**, WWU's costs under Modification 0678 are forecast to increase significantly from 20/21 onwards, as compared to the current regime.

Due to the two-year lag cost true up mechanism, (whereby any difference between costs and the allowance set in the price control is recovered in two years' time), DNs would bear these cost increases for two years. This may have a significant negative impact on cash flow and financing arrangements. As this change impacts all networks and external parties no individual party or network should gain or lose as a result of timing. The allowed revenues of gas distribution networks must be changed to reflect any cost change this October. If this does not happen there may be significant unintended consequences and market distortions may arise. The two year lag mechanism, combined with the mid-year change in NTS exit charges, the impact of the increases in cost will not be a direct correlation to the effect on our allowed revenue and therefore customer bill.

As can be seen below in **Table 13**, the revenue impact of Modification 0678 would start in 2021/22 and have its most pronounced effect in 2022/23 due to the cost true up from 2020/21. The cost true up adjusts for the differences between cost allowance and actual costs. The adjustment is made to allowed revenue in on a two-year lag. The table shows the forecasted revenue required to recover NTS exit capacity charges.

Table 13: Forecast Revenue Recovery - WWU

Forecast revenue recovery	19/20	20/21	21/22	22/23	23/24	24/25
Current regime	57.67	27.70	9.75	22.65	31.94	32.89
MOD 678 CWD	57.67	27.70	23.98	41.30	39.14	39.79
MOD 678 PS	57.67	27.70	21.83	36.04	32.92	33.23

The impact on customers would also therefore be largest in 2022/23 as shown through the graphs below (**Figures 3-5**) which shows the effect of Modification 0678 compared to the current methodology on customer charges for a selection of customers.

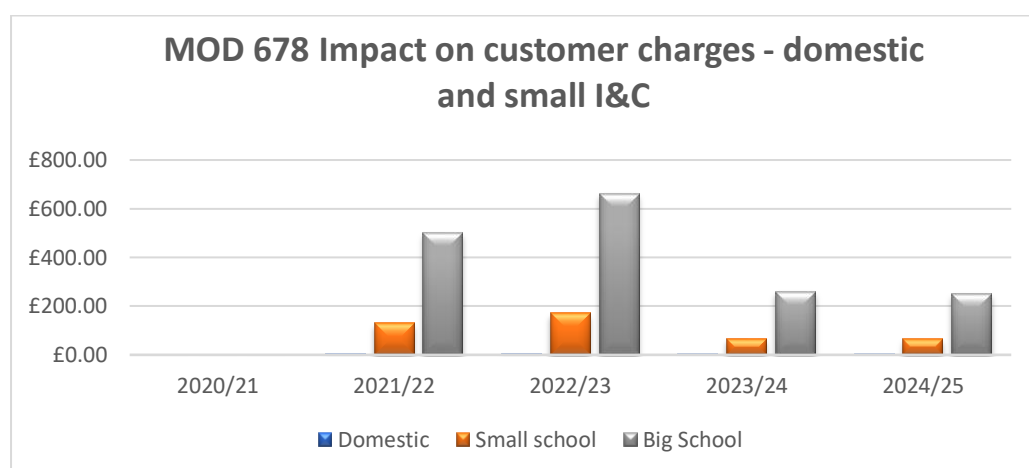


Figure 3: Modification 0678 impact on WWU's customer changes for domestic and small Industrial and commercial sector parties

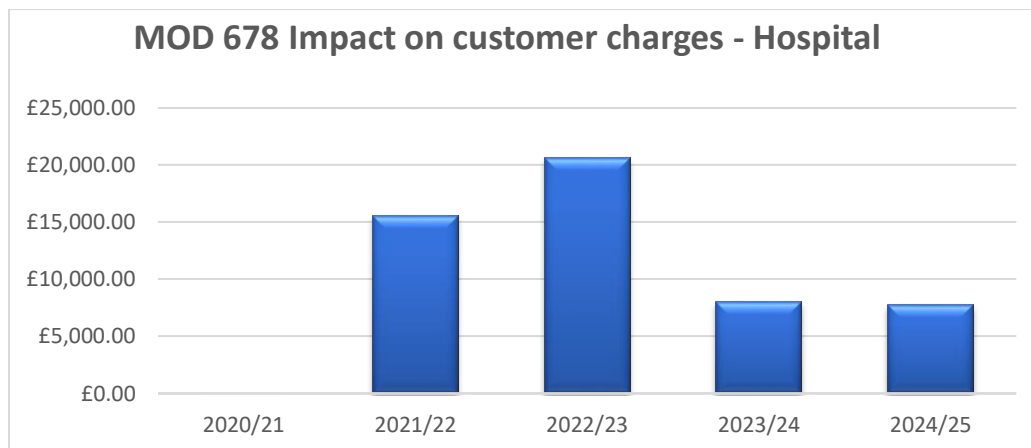


Figure 4: Modification 0678 impact on WWU's customer changes for an example hospital type customer

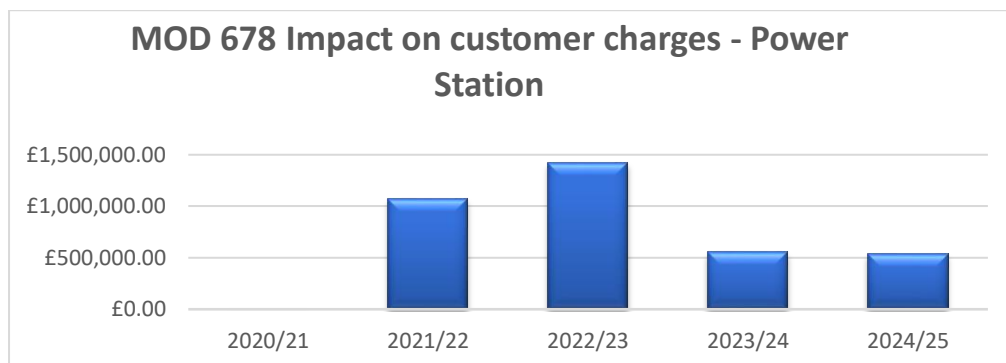


Figure 5: Modification 0678 impact on WWU's customer changes for an example Power Station type customer

It is important to note that as NTS commodity charges are effectively being passed on to DN's, who will then charge this on to end customers, the actual impact on end consumers will be lower than the above assuming Shippers pass on the benefit on no longer paying NTS exit commodity charges. Overall as the change is to all revenues being recovered through capacity charges rather than a mixture of capacity and commodity charges the net effect on end consumers is likely to be redistribution from customers with a high load factor towards customers with a low load factor.

The above analysis has been done assuming that cost true up impacting 22/23 and after is zero. In so far as it is not zero this will cause further fluctuations in the revenue that WWU needs to recover.

Additional WWU commentary 08April 2019

DN's were asked by Workgroup to provide further information on any factors impacting allowed revenue which are not related specifically to the effect of Modification 0678.

For WWU the largest of these factors is the cost true up. In October 2016, WWU was subject to a large increase in NTS prices (this resulted from Supply Matching Merit order reducing the model input from Milford Haven, the impact of which was especially large in South Wales). As a result of this WWU's Exit capacity costs in 16/17 increased significantly (half a year's impact of the NTS price increase) and by even more in 17/18 (a full year's impact).

Indicative prices from NTS at the time remained at this level, therefore a request was made to increase WWU's base allowance in 18/19 and then 19/20. This therefore increased WWU's allowed revenue in these years.

In addition to this the difference between allowance and actual cost in 16/17 and 17/18 was handed back to us through the cost true up in 18/19 and 19/20 (£14m), thereby increasing our allowed revenue further.

In October 2018 NTS prices dropped significantly, therefore WWU's allowance was higher than our actual cost. This will be a reduction to revenue in 20/21 through the cost true up mechanism (£14m) and 21/22 (£24m under current regime).

WWU and Cadent provided an explanation of the impact of interest on the cash flow differences because of the two year lag when adjusting their charging revenues.

The initial view from Cadent and W&W Utilities is given below.

Any over or under recovery on allowed revenue is adjusted for in two years time through the Correction Term, K_t (i.e. any over recovery will be paid back in two years time and vice versa for under recovery). The amount is calculated using the following formula from Gas Transporters Licence section 1B.11

$$K_t = (R_{t-2} - AR_{t-2}) \times \left(1 + \frac{I_{t-2} + PR_t}{100}\right) \times \left(1 + \frac{I_{t-1} + 1.5}{100}\right)$$

Figure 6: Correction Term K_t formula

Where "I" - The average specified rate, is derived from the Bank of England base rate.

Further details can be found in the DN Licence.

Any over or under recovery of ECN revenue in any year is driven by changes to DN SOQs relative to the positions assumed at price setting and is not related in the slightest with NTS price setting.

Cadent confirmed the formula shown above for the Correction Term K_t is the Collected Revenue less Allowed Revenue multiplied by the bank rate "x" an interest rate adjustment (1.5) as specified in the Licence, unless the DN over or under collects more or less than 6% of Allowed Revenue. If more, then the interest rate is 3%, otherwise it is 0%.

C. SGN

SGN has carried out analysis as requested under section 4.15 of the workgroup report for the both Scotland and Southern networks. The analysis was completed for modification 0678 (CWD) and 0678A (Postage Stamp) using version 3.0 of the sensitivity tool.

The analysis assumes the new methodology impacts costs from October 2019. 2018/19 is included in the cost analysis as this is the last full year under the existing methodology (LMRC), so is a comparison vs the new proposed methodologies. Due to the DN tariff year running from April to March, the 2019/20 tariff year sees six months under LMRC and six months under the proposed new methodology. 2020/21 is the first full year impacted by the change.

NTS costs are a pass-through item for DN's, any increase/decrease in NTS costs will flow through to shippers on a two year lag mechanism.

The commentary below relates to the joint DN presentation from the 2 April 2019 workgroup.

What the results actually mean to the Scotland costs

As the reader can see from the presentation and subsequent chart below (**Figure 7**) forecast costs increase substantially under the proposed new methodologies, from £0.2m (LMRC) in 2018/19 to £29m (0678) and £22m (0678A) in 2020/21, the first year full of the proposed changes. SGN absorb these additional costs for two years, due to the two-year lag on costs, after which these will be included in the tariffs.

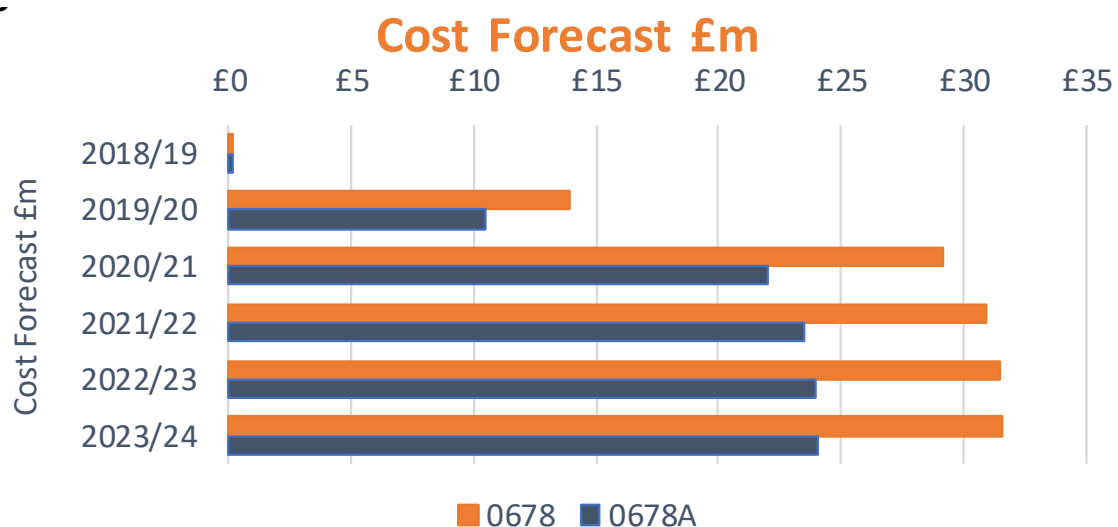


Figure 7: SGN Cost Forecast - Scotland

Due to the two-year lag mentioned above the impact on the tariffs is not visible until 2021/22, the first year of GD2 (**Figure 8**). The impact on the tariffs in 2021/22 and 2022/23 is accentuated due to the two-year lag and the assumed reset of allowances in GD2. For example, the £45m seen below (**Figure 8**) in year 2021/22 for 0678 relates to the £31m costs in 2021/22 plus a £14m under recovery of costs from 2019/20. It is not until 2023/24 where one can see a *clean* year i.e. no +/- lagged true up, resulting in tariff impacts of £32m under 0678 and £24m for 0678A.

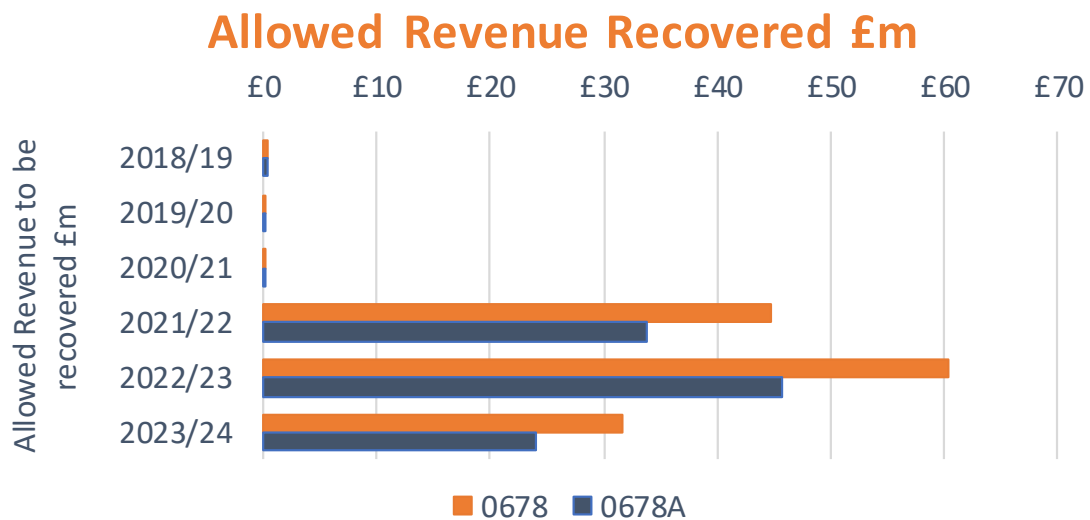


Figure 8: SGN Allowed Revenue Recovered - Scotland

What the results actually mean to the Scotland customers

Due to the two year lag the new methodology does not impact customer bills until 2021/22. 2020/21 has been included in the below analysis to give perspective to the increases likely to be seen under the proposed methodologies. As one can see from the graph below (**Figure 9**) an average Domestic customers bill would see significant impacts under 0678 and 0678A from 2021/22. 2021/22 and 2022/23 see steep increases due to the two-year lagged true up of costs. 2023/24, the first year of the new methodology with no cost true up, sees bill of £9 (0678) and £7 (0678A) rising from £0.04 seen under the last year of LRMC (2020/21). It is not only Domestic customers that would be impacted, as one can see from **Figure 10** all customer types would see significant increases. The figures show the average bill for each customer type. It is worth emphasising these are average bills, there would be significant variance in bills between each exit zone within Scotland as each has its own charge rate.

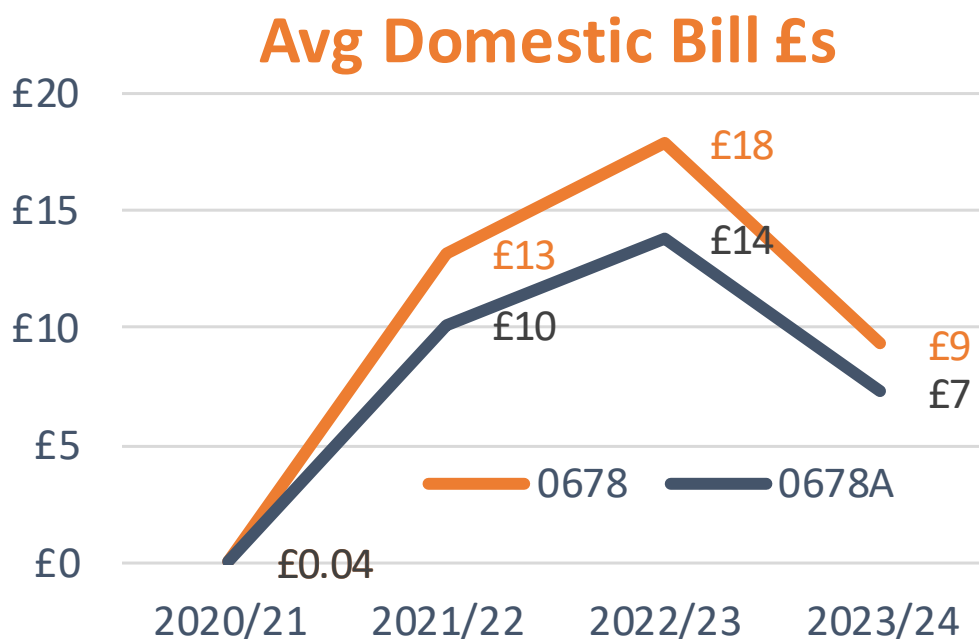


Figure 9: SGN Average Domestic Bill - Scotland

		0678	0678A			0678	0678A
£'s (73.2 - 732 Kwh)	2020/21	£1	£1	£'s (732 - 5,861 Kwh)	2020/21	£4	£4
	2021/22	£179	£138		2021/22	£1,314	£1,010
	2022/23	£242	£187		2022/23	£1,774	£1,370
	2023/24	£126	£98		2023/24	£927	£723
Average SOQ 1,529 (Kwh)				Average SOQ 11,231 (Kwh)			
£'s (> 5,861 Kwh)	2020/21	£69	£69	£'s (Large User)	2020/21	£548	£548
	2021/22	£22,264	£17,124		2021/22	£175,474	£134,959
	2022/23	£30,062	£23,220		2022/23	£237,580	£183,503
	2023/24	£15,717	£12,244		2023/24	£123,872	£96,497
Average SOQ 190,323 (Kwh)				Average SOQ 1,500,000 (Kwh)			

Figure 10: SGN Effect on all customer types - Scotland

What the results actually mean to the Southern costs

As Workgroup Participants can see from the presentation and subsequent chart below (**Figure 11**) forecast costs will steadily increase under the proposed new methodologies. From £48m in 2018/19 (LRMC) to £54m (0678) and £49m (0678A) in 2020/21, the first year full of the new proposals. SGN absorb these additional costs for two years, due to the two year lag on costs, after which these will be included in the tariffs.

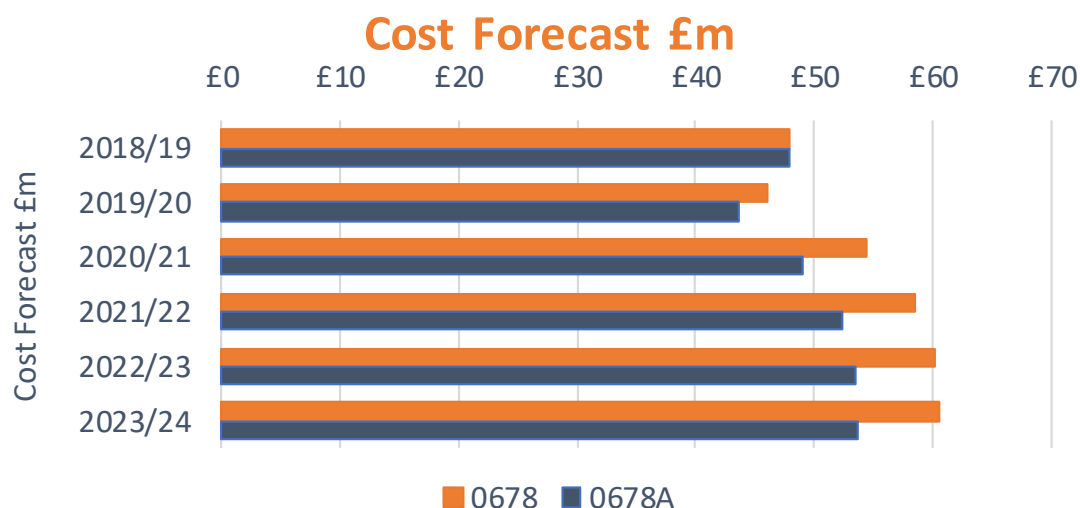


Figure 11: SGN Cost Forecast - Southern

Due to the two year lag mentioned above the true impact of the new methodologies on the tariffs is not visible until 2021/22, the first year of GD2 (**Figure 12**). The impact on the tariffs in 2021/22 and 2022/23 sees a reduction due to the two year lag and the assumed reset of allowances in GD2. For example, the £41m seen below in year 2021/22 for Modification 0678 relates to the costs of £59m in 2021/22 minus a £17m over recovery of costs from 2019/20. It is not until 2023/24 where one can see a *clean* year i.e. no +/- lagged true up, resulting in tariff impacts of £61m under 0678 and £54m for 0678A.

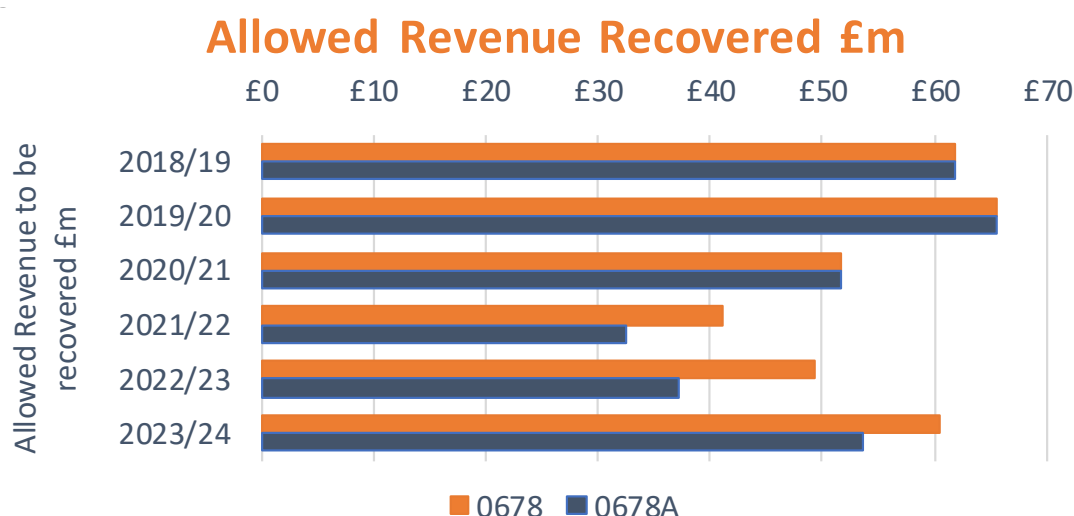


Figure 12: SGN Allowed Revenue Recovered - Southern

What the results actually mean to the Southern customers:

Due to the two year lag the new methodology does not impact customer bills until 2021/22. 2020/21 has been included in the below analysis to give perspective to the increases likely to be seen under the proposed methodologies. As one can see from the graph below (**Figure 13**) an average Domestic customers bill would see reductions until 2023/24, this is because both 2020/21 and 2021/22 includes over recovery of costs from LRMC. 2023/24, the first year of the new methodology with no cost true up, sees bill of £10 (0678) and £9 (0678A) rising from £8 seen under the last year of LRMC (2020/21).

It is not only Domestic customers that would be impacted, as one can see from **Figure 14** all customer types would see significant increases. The figures show the average bill for each customer type. It is worth emphasising these are average bills, there would be significant variance in bills between each exit zone within Southern, as each has its own charge rate.

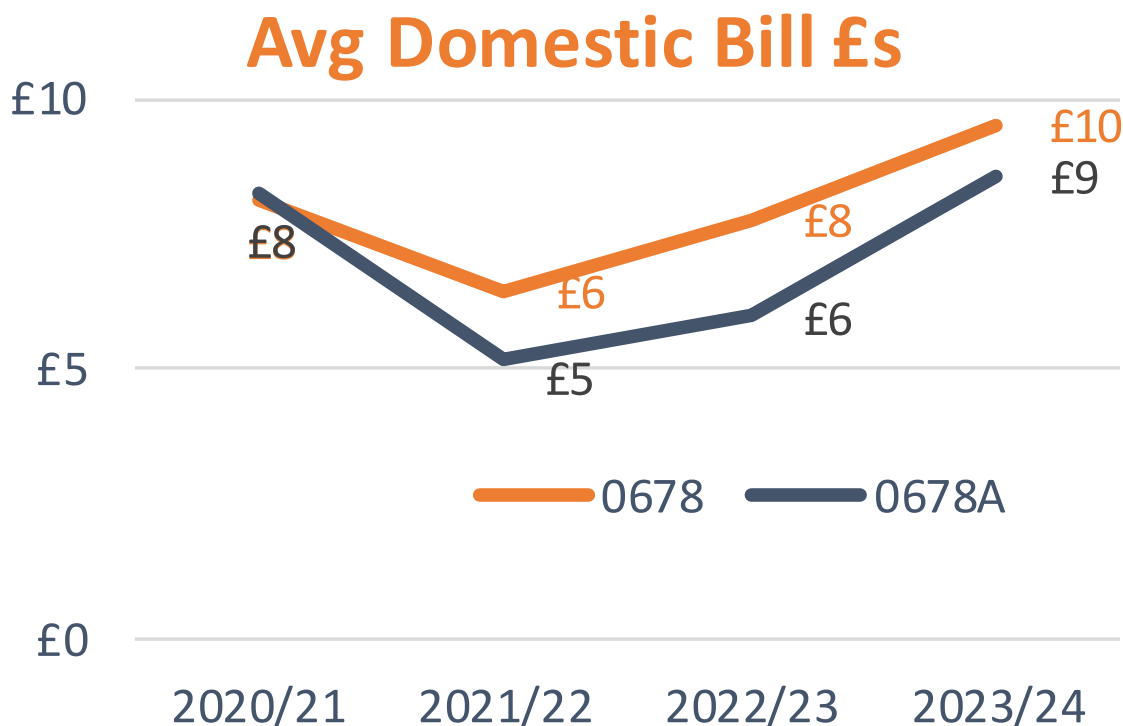


Figure 13: SGN Average Domestic Bill - Southern

		0678	0678A			0678	0678A
£'s (73.2 - 732 Kwh)	2020/21	£98	£99	£'s (732 - 5,861 Kwh)	2020/21	£772	£784
	2021/22	£78	£62		2021/22	£614	£493
	2022/23	£93	£72		2022/23	£737	£566
	2023/24	£114	£103		2023/24	£906	£815
Average SOQ 1,529 (Kwh)				Average SOQ 11,231 (Kwh)			
£'s (> 5,861 Kwh)	2020/21	£9,418	£9,571	£'s (Large User)	2020/21	£92,391	£93,896
	2021/22	£7,493	£6,014		2021/22	£73,502	£58,993
	2022/23	£8,999	£6,907		2022/23	£88,526	£67,939
	2023/24	£11,050	£9,948		2023/24	£108,405	£97,592
Average SOQ 190,323 (Kwh)				Average SOQ 1,500,000 (Kwh)			

Figure 14: SGN Effect on all customer types - Southern

Concerns SGN have on the impacts:

- Increase in cost will have a big impact on Scottish customers in particular. There is also the double impact in the first two years of GD2 due to the assumed reset of allowances and the two-year lag true up of costs

- How substantial increases are messaged to Scottish customers. In our 0621 response we stated that we feel ...'Ofgem has a role to play in communicating the substantial increases in costs faced by consumers and businesses.... This message will be complex given the substantial proportion of the UK gas supply being beached in Scotland'
- Currently there is no obligation to produce a sensitivity tool for all proposals. We require clarification regarding this as we are unsure how Industry can assess the impact of the proposals if a set of prices have not been generated to enable suitable financial analysis
- National Grid, due to time restraints, will not be taking ownership of adapting their sensitivity tool for each of the alternates (unlike 0621). We would request that there are sufficient assurances in place for those alternates adapting the National Grid tool, as any inconsistencies could impact analysis
- SGN were also concerned by potential price volatility post implementation. There is likely to be continued volatility due to behavioural changes to bookings and the raising of counter mods from different areas of the industry
- SGN consider neither CWD nor Postage Stamp to be cost reflective.

D: NGN

NGN's analysis focuses on the following areas for Modification 0678 Capacity Weighted Distance and Modification 0678A Postage Stamp:

1. The annual costs that NGN will be charged.
2. The movement from 0621 for these scenarios.
3. The movement from a "do nothing" scenario i.e. if the current charging regime continued as-is how much difference would mod678 generate?
4. The impact on NGN cash flows and customer bills.

Modification 0678 Capacity Weighted Distance – NGN analysis

- With an implementation date of October 2019 costs would be £14m in 19/20, £27m in 20/21 and then c.£29m thereafter.
- Compared with current charges this is between c.£7-£20m additional costs per year which would be passed directly on to the end consumer.
- In comparison to Modification 0621, costs have increased at a more rapid rate and the maximum is almost reached in the 2nd year of Modification 0678.
- An increase in costs between Oct-19 and Mar-21 would impact on cash flow. Revenue allowances would not be reset until GD2 so NGN would have to bear the additional cost exposure during this time (£25m).
- With a 2 year lag before revenue catches up this results in a larger impact in the early years of RIIO - GD2 – base allowances would be reset to the new level of c.£29m per year plus a £25m catch up would be needed from RIIO - GD1.
- Domestic customer bills would increase between £3.50 and £8 per year as a result.

Modification 0678A Postage Stamp - NGN analysis

- This Modification results in higher costs than Modification 0678 - costs would be £16m in 19/20, £31m in 20/21 and then c.£33m thereafter.
- Compared with current charges this is between c.£8m and £24m additional cost per year which would be passed directly on to the end consumer.
- NGN would be charged £31m additional costs during RIIO - GD1, with no corresponding revenue catch up allowance until RIIO - GD2.
- Domestic customer bills would increase between £4.60 and £10 per year as a result.

Customer Impacts Comparison with Ofgem RIIO Gas Transmission Annual Report 2017-18

A Workgroup Participant wished to draw Workgroup's attention to previously published Ofgem estimates of typical GB consumer cost to meet allowed revenue in customer bills⁷² (2017-18 prices base, for typical domestic consumer). Please see **Table 14** for details.

Workgroup noted the 2017-18 price base.

Table 14: Ofgem Regional estimates of typical GB consumer cost to meet allowed revenue (£ Real (2017-18 price base) customer bill per typical domestic consumer)

Year:	Apr-15	Apr-16	Apr-17	Apr-18	Apr-19
GB average:	9	9	9	9	10
Licensee					
Cadent - East of England	9	8	7	7	8
Cadent - London	10	10	9	8	9
Cadent - North West	13	13	13	12	12
Cadent - West Midlands	11	10	10	10	10
Northern Gas Networks	6	6	6	5	6
Scotia Gas Networks - Scotland	5	4	4	4	4
Scotia Gas Networks - Southern	13	13	13	12	13
Wales and West Utilities	10	10	10	15	15

Workgroup Participants noted that Ofgem's analysis uses a national average annual quantities for usage which drives the cost estimates contained in table 7 above. DNs have used the actual averages for their own network. This may therefore account for the difference in the above consumer costs as compared with the information given by the DNs earlier in this section.

Workgroup could not verify whether this accounted for the mismatch in the numbers within the time allotted.

⁷² Taken from page 20 Table 3.3 Ofgem RIIO Gas Transmission Annual Report 2017-18
https://www.ofgem.gov.uk/system/files/docs/2019/03/riio_gas_transmission_annual_report_2017-18.pdf

4.16. Implementation timings

Workgroup developed its views on providing a distinction between Decision Dates (when Ofgem will decide to implement a Modification) and Effective Dates (when the new charges first become payable).

Proposed Effective Date

National Grid confirmed that the Effective Date is the date from which new charges are first payable.

Workgroup noted that Modification 0678 proposes that the Effective Date would be

- Two clear months after the Modification Direction Date or
- Any other date stipulated in Ofgem's Direction.

Modifications 0678A/D/E/F/G/H and 0678J are aligned with Modification 0678.

Workgroup Participants observed that this may not provide for a minimum of two months' notice of the new charges, depending on how quickly actual charges are published after the Modification Direction Date. For the avoidance of doubt this could be a period longer than two months.

Workgroup Participants observed and National Grid confirmed that a derogation from Licence may be required where the capacity charges would take effect other than 01 October and potentially with regards to the notice period.

A Workgroup Participant noted that Proposers could have specified that the two months' notice could begin after publication of charges. No Proposers have chosen to make this a rule, however all of the Proposals have the flexibility to cater for this scenario, subject to when the decision is made and the time available between the decision and the effective date.

Table 15 below provides a summary of what each Modification proposes.

Table 15: Proposed and Recommended Effective Dates by Modification

Modification	Proposed Effective Date	Recommended Effective Date
0678	01 October 2019 or as soon as possible afterwards	01 October 2019 or as soon as possible afterwards
0678A	01 October 2019 or as soon as possible afterwards	01 October 2019 or as soon as possible afterwards
0678B	As directed by Ofgem	01 October 2020
0678C	01 October*	01 October*
0678D	01 October 2019 or as soon as possible afterwards	01 October 2020
0678E	01 October 2019 or as soon as possible afterwards	01 October 2019 or as soon as possible afterwards
0678F	01 October 2019 or as soon as possible afterwards	01 October 2019 or as soon as possible afterwards

0678G	01 October 2019 or as soon as possible afterwards	01 October 2020
0678H	01 October 2019 or as soon as possible afterwards	01 October 2020
0678I	01 October 2019 or 01 October* as soon as possible	01 October 2019 or 01 October* as soon as possible
0678J	01 October 2019 or as soon as possible afterwards	01 October 2019 or as soon as possible afterwards

***The Proposers of Modifications 0678C and 0678I Transportation charges must be published at least 2 months in advance, as such this would need to be by 01 August⁷³.**

Workgroup Participants discussed how two months is normal practice for notice periods.

Some Workgroup Participants did not agree that the effective date could be after 01 October 2019, noting that GB will not be compliant if GB does not have TAR NC compliant charges effective 01 October 2019.

A Workgroup Participant noted that in the Netherlands, TAR NC has been implemented with charges taking effect from 01 January 2020. For the Netherlands this is the beginning of the Tariff year. According to Article 38 a compliant Methodology shall apply from 31 May 2019.

Some Workgroup Participants strongly supported the charge change dates of 01 October 2020. An October – only implementation is exceptionally important. Charging methodology changes outside of an October timeframe are believed to be unprecedented in the last 15 years.

Some Workgroup Participants did not support an 01 October 2020 charge change date because this suite of Modifications is aimed at compliance with TAR NC which says a methodology should be in place by 31 May 2019 in effect for charges for October 2019⁷⁴.

Workgroup considered the Modification Effective Date for Modification 0678B which is the only Modification that does not provide a constraint in terms of the date and in essence, gives Ofgem total discretion.

Workgroup Participants noted that specifying 01 October is designed to tie in with the Gas Year. Each Modification has highlighted this within their implementation section (**Section 8 of the Modifications**).

A Workgroup Participant further noted that, within Electricity Distribution, where there has been a methodology change agreed by Ofgem, a 15 months minimum notice period is given⁷⁵.

⁷³ Please see SSE's legal advice available here: <http://www.gasgovernance.co.uk/0678/>

⁷⁴ TAR NC <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0459>

⁷⁵ Electricity Modification DCP178 implemented 05 November 2015.

A Workgroup Participant further noted that under TAR NC and CAM⁷⁶, notice periods are specified for Interconnection Points.

A Workgroup Participant suggested that changes to charges at IPs could not be changed within year, once set in advance of the auctions, in line with requirements for the CAM auctions⁷⁷.

Workgroup Participants noted the critical role that Ofgem has in relation to Compliance and potential within-year implementation and also required notice periods.

Some Workgroup Participants further noted the obligations under CAM should fall under the remit of the TSO (National Grid).

Within-Month changes

When reviewing the draft Legal Text provided for all of the Alternative Modifications on 04 April 2019, the Workgroup considered the ability to be able to implement any of the Modifications within-month and concluded that for system reasons, the Implementation date or Modification Effective Date would need to be first of the month. Workgroup Participants requested confirmation from Ofgem regarding whether the implementation date is expected to be on the first day of a month. Ofgem clarified that industry custom and practice is that implementation of price changes would normally be on the first day of a month. It was agreed that none of the Modifications would need to be amended for this point. It was noted by Workgroup that the legal drafting would be over complicated to enable an implementation date other than the first as a weighted average would have to be applied for the days the new charges would apply.

Workgroup Participants therefore noted the Legal Text drafting is expected to reflect a first of the month start date.

Ofgem input, Implementation dates and effective dates

Ofgem will be preparing for an Impact Assessment (IA) and will then consider at the point at which the Final Modification Report is received whether in fact an IA is required.

Ofgem advised it will confirm its consultation requirements once the FMR has been received.

Ofgem noted, on the subject of implementation, that in the 0678 Decision letter granting Urgency⁷⁸, industry is required to ensure GB compliance with TAR NC and any other relevant legislation as soon as possible. (Implementation by 31 May 2019 or as soon as possible is the target). Some Workgroup

⁷⁶ CAM NC Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems' available here:

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0459>

⁷⁷ TAR NC Article 29 "Information to be published before the annual yearly capacity auction" which concerns obligations for IP pricing publication obligations. The TAR NC can be found here:

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.072.01.0029.01.ENG&toc=OJ:L:2017:072:FULL

⁷⁸ The Ofgem Decision letter granting Urgency for 0678 can be found here:

<http://www.gasgovernance.co.uk/0678/>

Participants recognise this is likely to be after 31 May 2019, since Ofgem will likely need to come to a minded-to decision possibly involving an IA, given TAR NC requirements for 2 months consultation followed by 2 months for ACER feedback, followed by Ofgem's final decision.

Some Workgroup Participants noted the uncertainty around Brexit and its effect on these dates. If there is 'No Deal', GB's obligation to comply with TAR NC ceases. Given how difficult it is acknowledged to be to meet the October 2019 deadline, some Workgroup Participants suggested that Ofgem is best able to determine an appropriate date for new charges.

Workgroup Participants noted that the processes required subsequent to submission of the Final Modification Report to Ofgem on 23 April 2019 will take up time and are highly likely to take the Ofgem decision past 31 May 2019. Workgroup noted that gas storage auctions take place in April, in line with storage licences and this will be too late for customers to bid for storage capacity with certainty. This will have adverse consequences for storage businesses which would be averted if charge changes were to take place from October 2020.

Exit capacity can be purchased or surrendered in the July capacity auction application windows; shippers will need to know charges in advance of this date in order to be able to respond to prices. Similarly, in July interconnector PRISMA auctions also take place with similar response concerns.

Implementation dates and effect on IP/non-IP

Some Workgroup Participants noted that an implementation date other than 01 October would create a cross subsidy between IPs and non-IPs and also a difference of methodology between IPs and non-IPs, which is believed to not be compliant with TAR NC Article 6.3 in the view of Workgroup Participants. This was noted whilst considering the Legal Text on 27 February 2019 which would be required to enable a within-year effective date (e.g. Transition Document Paragraph 25.5). If there were to be an effective date other than 01 October there would be a different application of the methodology at IPs and non-IPs which is not believed to be compliant with Article 6.3, which would also create a cross subsidy between those points.

Some Workgroup Participants noted that in 0678B, there is a recommendation for 01 October 2020 effective date, however the Proposer does not feel they can provide a solution for a mid-year change, since such a change is contingent on decisions over which the Proposer does not have control, e.g. licence changes/derogations.

Profiling factor 06 March 2019

Workgroup Participants expressed concern over the lack of clarity over how the profiling factor will be determined (whilst reviewing a draft of Modification 0678 v3). This is an issue for implementation and some workgroup Participants felt it was a transparency issue. Workgroup noted this will give an improvement over the current situation.

Workgroup Participants noted that the purpose of the profiling factor is aimed partially at smoothing the level of volatility of prices caused by the difference between the Gas Year and the Regulatory Year.

Workgroup Participants noted that Users must be able to understand how this will work in practice, especially for any mid-year implementation for the first year.

Other Workgroup Participants noted that October is mid-year in terms of the Regulatory Year and so this issue is present with any 01 October implementation date.

Some Workgroup Participants suggested that only a 01 October effective date would be compliant – associated Modifications are outlined in **Table 15** above. This would ensure compliance with TAR NC Article 6.3 to avoid different charging methodologies for IPs and non-IPs and compliance with CAM Article 9 as would arise in the current solution defined in Legal Text for Modification 0678.

Some Workgroup Participants stated that CAM Article 9.2 defines yearly standard capacity product as being for a gas year starting on 01 October. UNC General Terms Section C paragraph 2.2⁷⁹ defines Gas Year and Capacity Year as from 01 October.

Some Workgroup Participants stated however, that proposed Legal Text for Modification 0678 seen on 06 March 2019 Annex C 25 contradicts this. EU law takes precedence and therefore what is proposed in Modification 0678 was not compliant with CAM code as at 06 March 2019.

Some Workgroup Participants further highlighted that EU TAR NC Article 12.3 states prices published according to Article 29 are binding for the gas year. Indeed, EU law for chapters VI and VIII of EU TAR are already in force and define the gas year consistent with CAM. The material presented at Transmission Workgroup in September 2017 by National Grid⁸⁰ confirms that GB is already compliant with publication requirements of chapter VIII Article 29-32.

Some Workgroup Participants noted Article 32 states Article 29 information must be published 30 days before the annual yearly capacity auction, so early June for July auction and Article 30 no later than 30 days before the tariff period. As stated, Article 29 a (i) includes reserve prices until at least the end of the gas year beginning after the annual capacity auctions, for standard capacity products for firm capacity. Standard capacity products in CAM Article 9 includes yearly, quarterly monthly daily and within day. Therefore, once these are set for IPs, they cannot be changed within year. Legal Text for Modification 0678 appears to suggest changes can be made.

Some Workgroup Participants noted added that, if IPs and non-IPs were to be treated differently by having different effective dates and therefore different charging RPMs this would not be compliant with Article 6 of EU TAR NC. To be compliant with CAM and TAR only an effective date of 01 October is permissible.

Other Workgroup Participants noted that the same RPM applies at all points based on the effective date because the effective date changes the payable price for all points in all Proposals.

For the avoidance of doubt this means all charges float except Existing Contracts.

Workgroup confirmed that there is difference of opinion within Workgroup. This centres around Proposers giving Ofgem flexibility whilst recommending specific dates for the effective dates or alternatively specifying particular effective dates with very little flexibility except around which year. This is summarised in **Table 15** above.

⁷⁹ UNC General Terms Section C available here: <http://www.gasgovernance.co.uk/general>

⁸⁰ Transmission Workgroup 07 September 2017 National Grid slides 23 and 24 link:

<https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/page/2017-09/Tx%20WG%20September%202017.pdf>

28 March 2019

Workgroup Participants discussed the profiling factor and noted that the Legal Text associated with this provides a more detailed solution than the wording set out in the Solution section of Modification 0678. Proposers of all Modifications (except Modification 0678C and Modification 0678I where it is not relevant) confirmed that the intent is clear in the Solution of their Modifications.

Other Workgroup Participants expressed concern that the Legal Text goes further than the Solution and that this may be of concern to the UNC Panel.

Effective Date and notice periods

Workgroup Participants noted that two months' notice proposed in the early version of Modification 0678 v3 has not had any justification in terms of impact on Users. National Grid confirmed it is suggesting two months in line with best practice.

Some Workgroup Participants noted that under Modification 0636, Ofgem requested Shippers give their views on implementation impacts to Ofgem. This could be requested again by Ofgem. Ofgem confirmed consultation respondents can contact Ofgem separately during the forthcoming 0678 consultation, though non-confidential responses are, by their very nature, more transparent.

Interaction with other (non-0678) Modifications

The Proposer of Modification 0678B confirmed the Modification does not rely on any output from the UNC 0670R review group in respect of replacing the Optional Commodity Charge with a new solution. The non-application of the Transmission Services Revenue Recovery Charge to all Existing Contracts means that the solutions being developed under Modification 0662 are not required for this Modification.

Implementation and Transition

Some Workgroup Participants noted that TAR NC makes no provision (explicit or otherwise) for a transition period as proposed by the UNC621 modifications: it will apply with full effect from 31 May 2019. That is not to say that a methodology could not be introduced incrementally where necessary.

4.17. Independent Assurances on the development of any new Charging Models

National Grid confirmed for Workgroup that in the development and use of the required Charging tools or applications to calculate the required charges under the approved proposal, National Grid will carry out formal assurance activities, assessments and audits (as required) in preparation for using these tools or applications for the generation of actual charges. This will be to ensure they are robust in the generation of charges in line with the approved charging framework. For any tool that will be made available to industry, this will also undergo similar activities and provide a level of transparency to enable reference and reserve prices to be replicated.

Any models prepared by National Grid or other Proposers in the development of Modification 0678 and the Alternatives are provided as indicative tools. They are provided as sensitivity models and do not represent the final tools that will be used, nor the final model(s) to be made external once a decision is made. All calculations in line with the methodologies are provided to a level of transparency to facilitate understanding and provide the ability to model sensitivities for indicative charges for the available proposals.

Workgroup wished to note that National Grid Optional Charge analysis cannot readily be checked by external parties because of the nature of some of the data. This limits Users' ability to accurately reproduce the charges and their likely future evolution.

4.18. General Non-Transmission Charges

Workgroup noted that these charges are not Transmission Services as they are not considered to fall under the definition 4.1 of TAR NC. The charges can be attributed to Transmission or Non-Transmission, subject to approval by the NRA (in this case Ofgem). The proposals are that the charges listed in Modification 0678 as Non-Transmission charges are treated as Non-Transmission Services

and therefore contribute towards Non-Transmission Services Revenue. This is the same under all the Proposals except where the NTS optional charge and the wheeling charge provides an exemption in the relevant Proposals.

National Grid confirmed that the calculation and application of all the charges listed under Non-Transmission are to be the same as under the current methodology with similar wording applied as currently in the UNC Section Y to the revised text proposed under Modification 0678. 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). The GNTSC for Entry and Exit are commodity charges levied on eligible flows, which under Modification 0678 is all Entry and Exit flows except those for Storage. Where there is an Optional Charge, such as in Proposals 0678B/G/H/I/J, these have some additional criteria to determine the level of the GNTSC due to the application of any Optional Charging Methodologies. Where used, these change the value of eligible flows to which the GNTSC would be calculated against and applied to.

National Grid confirmed there is limited change in approach between the current SO charging methodology and the proposed Non-Transmission Services Charging Methodology.

National Grid clarified for Workgroup that the treatment in the Licence of SO revenue from interruptible capacity release will be considered Transmission Services Revenue. As this is capacity revenue it will be Transmission Services Revenue. It will not be treated as Non-Transmission Services Revenue. Currently some capacity revenue is treated as SO Revenue. This does not change as the TO and SO constructs remain the same as per NTS' Licence requirements. However, Modification 0678 creates Transmission and Non-Transmission Services as two new allowed revenue constructs and revenue associates towards capacity will always be treated as Transmission Services.

4.19. K Principles and adjusting revenues in subsequent years

Workgroup noted that '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 RIIO-T1 price control there are two values for this, one for the TO (referred to as "K") and one for the SO (referred to as "SOK").

The use of "K" is often referred to as the concept of taking an under or over recovery and applying to a subsequent year's allowed revenues and therefore charges in a subsequent year. Under the RIIO-T1 (and for information RIIO-GD1) 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 subsequent allowed revenue. It is a means to manage with some knowledge how the under or over recovery in any given year is to impact a future year.

The recovery of any value under 'K' will therefore be 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 Owner 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.

For Non-Transmission, the equivalent "K" value is aggregated into a single number as the same rate is applied to both Entry and Exit General Non Transmission Services Charges.

For the purposes of determining and applying “K” values, all Proposals have the same approach.

4.20. Central Systems Impacts

In response to a Workgroup Action request, the following update was received on 06 March 2019:

National Grid in collaboration with Xoserve (via Change Proposal 4376⁸¹) is planning to deliver the required process and system change to meet the obligations set out in Modification 0678 by October 2019. For any proposal that is Approved, it would be necessary to incorporate delivery of all features of the proposal into a compliant solution. Due to the unique nature of the project, considering timescales and efficient spend it is not possible to deliver a fully systemised solution meeting all the different requirements from every Alternative Modification. Where possible the system solution has been parameterised to provide the greatest possible flexibility, considering the constraints. The current Xoserve delivery costs are in-line with those provided in CP4376.

Some Workgroup Participants expressed concern regarding the ability to deliver certain aspects of the Alternative Modifications depending on the complexity; an example of this is tagging of secondary trades.

Some Workgroup Participants expressed concern about the lack of clarity about the required changes to UNC TPD Section S Invoicing and Payment) and further concern about Users’ ability to accommodate those changes within their own systems. Further, the timescales for change if implementation is in October 2019 are extremely challenging.

5 Relevant Objectives

As part of the Modification process, each Modification Proposer completed **Section 7.0 - Relevant Objectives** within their Modification. As Modification 0678 and its Alternatives relate to Charging, all Proposers had to also complete the **Charging Relevant Objectives**.

For each Relevant Objective (as outlined above), an assessment was made by the Proposer stating whether the impact of the Modification Solution is negative, neutral (“none”) or positive. This is detailed in Part II of the Workgroup Report.

The Relevant Objectives for Modification 0678 and each of the Alternatives were then assessed by the 0678 Workgroup. Workgroup were asked to provide a commentary against each Relevant Objective for each Modification.

To aid the reader of this document the following **Table 16** outlines which Modifications are based on Postage stamp and which are based on Capacity Weighted Distance.

⁸¹ Change Proposal XRN4376 can be found here:

<https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/book/2018-02/CP4376%20-%20GB%20Charging%20BER%20v2.0.pdf>

Table 16: Modification basis: CWD or Postage Stamp

Postage Stamp (PS) Related Modifications	0678A, 0678C,0678H and 0678J
Capacity Weighted Distance (CWD) Related Modifications	0678, 0678B. 0678D,0678E, 0678F,0678G and 0678I

Table 17 below provides a high-level summary of each Proposer's assessment against the individual Standard Relevant Objectives. **Table 17** also states the version of the Modification (and the Relevant Objectives contained within it) which Workgroup considered in its assessment of the Relevant Objectives.

Table 17: Summary of Proposer's assessments against each Standard Relevant Objectives

Standard Relevant Objective	0678 National Grid V4	0678A RWE V3	0678B Centrica V3	0678C SSE V5	0678D ENI V5	0678E Gateway Energy V3	0678F Storengy V4	0678G Vitol V4	0678H EP UK V5	0678I Gazprom V5	0678J South Hook Gas V3
a) Efficient and economic operation of the pipe-line system.	None	None	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
b) Co-ordinated, efficient, and economic operation of	None	None	None	Positive	None	Positive	Positive	None	None	None	None
(i) the combined pipe-line system, and/ or											
(ii) the pipe-line system of one or more other relevant gas transporters.											
c) Efficient discharge of the licensee's obligations.	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
d) Securing of effective competition:	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
(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.											

Standard Relevant Objective	0678	0678A	0678B	0678C	0678D	0678E	0678F	0678G	0678H	0678I	0678J
	National Grid V4	RWE V3	Centrica V3	SSE V5	ENI V5	Gateway Energy V3	Storengy V4	Vitol V4	EP UK V5	Gazprom V5	South Hook Gas V3
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards are satisfied as respects the availability of gas to their domestic customers.	None	None	None	None	None	None	None	None	None	None	None
f) Promotion of efficiency in the implementation and administration of the Code.	None	None	None	None	None	None	None	None	None	None	None
g) 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	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive

Workgroup Assessment of Impacts of the Modification on the Relevant Objectives.

Table 18: Impact of the Modifications on the Standard Relevant Objectives

Impact of the Modification on the Relevant Objectives:	
Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	None – 0678/A/D Positive – 0678B/C/E/F/G/H/I/J
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	None – 0678/A/B/D/G/H/I/J Positive – 0678C/E/F
c) Efficient discharge of the licensee's obligations.	Positive – 0678/A/B/C/D/E/F/G/H/I/J
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 – 0678/A/B/C/D/E/F/G/H/I/J
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards... are satisfied as respects the availability of gas to their domestic customers.	None – 0678/A/B/C/D/E/F/G/H/I/J
f) Promotion of efficiency in the implementation and administration of the Code.	None – 0678/A/B/C/D/E/F/G/H/I/J
g) 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 – 0678/A/B/C/D/E/F/G/H/I/J

Workgroup provided and overall commentary against the suite of 0678 Modifications and then went onto assess each individual Modification.

a) Efficient and economic operation of the pipe-line system	
Workgroup comments	
All CWD Modifications (0678, 0678B, 0678D, 0678E, 0678F, 0678G, 0678I)	<p>National Grid clarified that it did not expect to see any operational benefits or detriments as a result of the Modification 0678.</p> <p>Some Workgroup Participants noted that there may be behavioural changes as a result of locational signals (or lack of) and changes in booking behaviours compared to the FCC.</p> <p>Some Workgroup Participants highlighted their view that the distorted locational signals from CWD may negatively impact on the efficient and economic operation of the pipe-line system.</p>
All Postage-stamp Modifications (0678A, 0678C, 0678H, 0678J)	<p>Some Workgroup Participants noted that the Proposers of the Postage Stamp Modifications do not believe that their Modifications impact positively on this Relevant Objective but rather remains neutral for this Relevant Objective. This is because the aim of the suite of Postage Stamp Modifications is the recovery of historical sunk costs and not the provision of signals to Users in relation to operation of the network.</p> <p>Some Workgroup Participants highlighted their view that compared with the current arrangements, the absence of locational signals from Postage Stamp may negatively impact on the efficient and economic operation of the pipe-line system.</p>
0678	No additional comments.
0678A	No additional comments.
0678B	<p>Some Workgroup Participants noted that Modifications that include an Optional Charge, potentially facilitate this better than those that do not. This is because of the incentive of where to locate and flow on the network.</p> <p>For example, at St Fergus, gas transported to Peterhead power station (approx. 400m) on a private pipeline would result in a change of compressor use on the NTS and therefore impact system operation.</p> <p>A Workgroup Participant noted that this Relevant Objective is unlikely to be positively impacted because it is referring to system operation which is unlikely to be affected by a 'Shorthaul' type charge.</p>
0678C	Workgroup Participants noted that the Storage Discount proposed enables the NTS, as System Operator to benefit from the counter injection and withdrawal in relation to storage. Without the Storage Discount these facilities would be

	<p>detrimentally impacted which in turn would have a negative impact the operation of the NTS and this Relevant Objective a).</p> <p>Other Workgroup Participants noted that the minimum 50% Storage Discount should be sufficient to ensure efficient operation of the NTS in relation to Storage.</p> <p>Workgroup Participants noted that Ofgem (in its 0621 rejection letter) had observed that:</p> <p><i>“Therefore, under a number of the UNC621 modifications (i.e. those which propose a storage discount less than 86%), some storage facilities may encounter challenges in continuing operations in the medium to longer-run. “</i></p> <p>Workgroup Participants noted that if this transpired, it could have a potentially detrimental impact on the operation of the system.</p>
0678D	<p>Some Workgroup Participants noted that Modifications that include an Optional type Charge potentially facilitate this better than those that do not because of the incentive of where to locate and flow on the network. An example is that if, at St Fergus, gas transported to Peterhead power station (approx. 400m) on a private pipeline would result in change of compressor use on the NTS and therefore positively impact system operation.</p> <p>A Workgroup Participant noted that this Relevant Objective is unlikely to be positively impacted because it is referring to system operation which is unlikely to be affected by a 'Shorthaul' type charge.</p> <p>A Workgroup Participant noted that encouraging gas to flow shorter distances (e.g. via 'Shorthaul') is likely to positively impact this Relevant Objective.</p> <p>The Proposer of 0678D countered some of Workgroup's comments as follows:</p> <p>The whole charging package contained in this Modification 0678D has been designed to encourage fair and efficient access to the pipeline system. The expected more stable and predictable charges compared with what is generated from the current methodology should encourage more stable and predictable use of the system by shippers - something that should in turn help National Grid generate accurate capacity usage forecasts for setting charges in future. The removal of free capacity products is an important aspect of the proposal as is the inclusion of an NTS Optional Capacity charge (to replace the Optional Commodity Charge). Without an NTS Optional Capacity charge there will likely be an increased incentive for the use of some system bypass pipelines because some of the charges being generated by CWD produce counter-intuitive outcomes – high exit charges for large sites located close to entry points (the same argument could be made had the reference price methodology been Postage Stamp). By improving the predictability of the use of the system, National Grid should be better placed and better prepared to operate it in a more efficient manner. By encouraging efficient use of the system by Users (e.g. by avoiding inefficient bypass) National Grid will ensure that its operations can be economically optimised so that costs are kept as low as possible on a pence / kWh flowed basis.</p>

	<p>At the same time, this Modification 0678D recognises that the current level of Optional Commodity Charge discounts applied to Transmission Owner (TO) charging has become distorted in recent years by its structural link to the rising level of TO Commodity charges. Modification 0678D is therefore designed to promote efficiency and economy in the use of the NTS pipeline system by reducing the level of revenue under-recovery to a more appropriate level, whilst increasing the costs paid by Users shipping along routes which qualify for the NTS Optional Capacity charge in line with the costs for building and maintaining a bypass pipeline of the same distance. Where Users/customers are able to choose between the costs of using the NTS or building and maintaining a bypass pipeline, and where the cost of using the NTS are a reasonable proxy for private ownership, the outcome will be efficient. A cost based Optional charging methodology provides a robust, enduring basis for dis-incentivising inefficient NTS bypass.</p>
0678E	No additional comments.
0678F	No additional comments.
0678G	<p>Some Workgroup Participants noted that Modifications that include an Optional type Charge, potentially facilitate this objective better than those that do not. This is because of the incentive of where to locate and flow on the network. For example, at St Fergus, gas transported to Peterhead power station (approx. 400m) on a private pipeline would result in a change of compressor use on the NTS and therefore positively impact system operation.</p> <p>A Workgroup Participant noted that this Relevant Objective is unlikely to be positively impacted because it is referring to system operation which is unlikely to be affected by a 'Shorthaul' type charge.</p> <p>A Workgroup Participant noted that encouraging gas to flow shorter distances (e.g. via 'Shorthaul') is positively impacting this Relevant Objective.</p>
0678H	<p>Some Workgroup Participants noted that Modifications that include an Optional type Charge potentially facilitate this better than those that do not because of the incentive of where to locate and flow on the network. For example, at St Fergus, gas transported to Peterhead power station (approx. 400m) on a private pipeline would result in a change of compressor use on the NTS and therefore positively impact system operation.</p> <p>A Workgroup Participant noted that this Relevant Objective is unlikely to be positively impacted because it is referring to system operation which is unlikely to be affected by a 'Shorthaul' type charge.</p> <p>A Workgroup Participant noted that encouraging gas to flow shorter distances (e.g. via 'Shorthaul') is positively impacting this Relevant Objective.</p>
0678I	Some Workgroup Participants noted that inclusion of the Wheeling Charge potentially facilitates this Relevant Objective better than those that do not include

	<p>any 'Shorthaul' type charge, because this encourages the flowing of the gas through the NTS rather than through a private pipeline.</p> <p>A Workgroup Participant noted that this Relevant Objective is unlikely to be positively impacted because it is referring to system operation which is unlikely to be affected by the Wheeling charge.</p> <p>A Workgroup Participant noted that encouraging gas to flow shorter distances (e.g. via 'shorthaul') is likely to positively impact this Relevant Objective.</p>
0678J	<p>Workgroup noted that 0678J contains the same Optional Charge solution as that given in 0678G and 0678H. Therefore, some Workgroup Participants noted that Modifications that include an Optional type Charge potentially facilitate this Relevant Objective better than those that do not, because of the incentive of where to locate and flow on the network.</p> <p>A Workgroup Participant noted that this Relevant Objective is unlikely to be positively impacted because it is referring to system operation which is unlikely to be affected by a 'Shorthaul' type charge.</p> <p>The Proposer of 0678J countered some of Workgroup's comments as follows:</p> <p>An additional example of where not including an optional type charge will negatively impact the operation of the system can be seen at Milford Haven. National Grid has determined, in a recent PARCA application, that funded incremental capacity is required to release additional capacity at Milford Haven. If a private pipeline was to be built instead of the NTS incremental investment then this reduces the local demand for the gas which results in the gas from Milford Haven having travel further into the network prior to being off taken without the commitment from an applicant, therefore having a negative impact on the operation of the pipeline.</p> <p>A Workgroup Participant noted that encouraging gas to flow shorter distances (e.g. via 'shorthaul') is positively impacting this Relevant Objective.</p>

<p>b) Coordinated, efficient and economic operation of</p> <p>(i) the combined pipe-line system, and/ or</p> <p>(ii) the pipe-line system of one or more other relevant gas transporters.</p>	
<p>Workgroup comments</p>	
<p>All PS Modifications (0678A, 0678C, 0678H, 0678J)</p>	<p>Workgroup Participants noted that Postage Stamp methodology does not positively impact this Relevant Objective because the aim is recovery of historical sunk costs and the aim is not to provide signals to Users in relation to operation of the network.</p> <p>Some Workgroup Participants noted Postage Stamp delivers no locational signals in that the charges do not reflect any investment or operation of the network. This approach results in all Users will be paying the same price, this could be argued to be undue cross subsidy and undue discrimination wherein Users flowing gas for short distances are subsidising those who flow across long distances. Compressors are used to transport gas across long distances and therefore this is more accurately reflected in the CWD methodology.</p> <p>Some Workgroup Participants noted that under a Postage Stamp methodology there could be no added incentive to bring gas onto the network at a particular Entry Point. For example, bringing gas onto the network at a distance far from where it is intended to be consumed is not conducive to operational efficiency, since it would require significant Capital Expenditure and Operational Expenditure as investments in NTS compression to move the gas around the network. (This would also have a negative environmental impact).</p> <p>Some Workgroup Participants noted that lack of materiality of compression costs must be considered.</p> <p>Some Workgroup participants noted that PS delivers a higher price at some points than CWD does.</p>
<p>All CWD Modifications (0678, 0678B, 0678D, 0678E, 0678F, 0678G, 0678I)</p>	<p>Some Workgroup Participants noted CWD is detrimental in relation to Relevant Objective b) in relation to operation of the network because the locational signals given are essentially given by the distance matrix rather than investment or operation of the network. Any behavioural responses to these signals will potentially be unhelpful and detrimental to the network.</p> <p>Some Workgroup Participants noted that under CWD higher prices at the extremes of the network may have a negative effect on security of supply which is an operational efficiency issue (This is highlighted in the Ofgem Decision Letter on 0621⁸²).</p>
<p>0678</p>	<p>No additional comments.</p>

⁸² Ofgem Decision Letter on 0621 p.13 and 14 link: www.gasgovernance.co.uk/0678/

0678A	No additional comments.
0678B	No additional comments.
0678C	Some Workgroup Participants noted that storage provides support to the entire network. Proximity to demand and flow response to changes in aggregate demand ensures that overall system pressures are supported. The 80% Storage Discount (compared with a 50% discount) is designed to ensure that storage facilities should continue to provide services to the NTS.
0678D	No additional comments.
0678E	Some Workgroup Participants noted that storage provides support to the entire network. Proximity to demand and flow response to changes in aggregate demand ensures that overall system pressures are supported. The 80% Storage Discount (compared with a 50% discount) is designed to ensure that storage facilities should continue to provide services to the NTS.
0678F	Some Workgroup Participants noted that storage provides support to the entire network. Proximity to demand and flow response to changes in aggregate demand ensures that overall system pressures are supported. The 80% Storage Discount (compared with a 50% discount) is designed to ensure that storage facilities should continue to provide services to the NTS.
0678G	No additional comments.
0678H	No additional comments.
0678I	No additional comments.
0678J	No additional comments.

c) Efficient discharge of the licensee's obligations	
Workgroup comments	
All Modifications	Some Workgroup Participants noted that the removal of existing contract volume and revenue before calculating the reference prices leads to a greater distortion between the prices paid by existing contract holders and those making new capacity purchases. Whilst this has been a feature of the regime for some time due to entry capacity purchases made on a fixed price basis not being indexed in any way, the situation becomes extreme which is inconsistent with the licensee's obligations to avoid undue preference in the supply of transportation services. It is acknowledged that existing contracts have been purchased in monthly or quarterly blocks which cannot be changed whilst new purchases can be profiled more closely to meet expected flows. This may not be sufficient to offset the price disparity. Some Workgroup Participants expect Ofgem to consider this in its Impact Assessment, along with whether this creates a barrier to entry.
0678	Workgroup Participants were satisfied with National Grid's explanation which related to Standard Special Condition A5 ⁸³ .
0678A	Workgroup Participants were satisfied with RWE's explanation which was based entirely on National Grid's.
0678B	<p>Some Workgroup Participants noted that 0678B is a complete charging solution which has a 'Shorthaul' type charge, delivered at the same time as the other changes and therefore it better facilitates achievement of this relevant objective c)</p> <p>Other Workgroup Participants noted that having a 'Shorthaul' type charge was not a requirement of TAR NC; a method of managing inefficient bypass can be made via a separate Modification (e.g. UNC0670R noting though that this is only a Review).</p> <p>Some Workgroup Participants noted that licensees' obligations include cost reflectivity, clearing allocation and undue preference.</p> <p>Some Workgroup Participants suggested that 0678B with CWD and the optional charge goes some way to compensate for the CWD effect of higher charges at exit points close to entry points and thus improves its cost reflectivity better than if the optional charge were not included.</p> <p>Some Workgroup Participants noted that the removal of existing contract volume and revenue before calculating the reference prices leads to a greater distortion</p>

⁸³ National Grid Licence Standard Special Condition A5: <https://www.ofgem.gov.uk/licences-industry-codes-and-standards/licences/licence-conditions>

	<p>between the prices paid by existing contract holders and those making new capacity purchases. Whilst this has been a feature of the regime for some time due to entry capacity purchases made on a fixed price basis not being indexed in any way, the situation becomes extreme which is inconsistent with the licensee's obligations to avoid undue preference in the supply of transportation services. It is acknowledged that existing contracts have been purchased in monthly or quarterly blocks which cannot be changed whilst new purchases can be profiled more closely to meet expected flows. This may not be sufficient to offset the price disparity. Some Workgroup Participants stated that they expect Ofgem to consider this in its Impact Assessment, along with whether this creates a barrier to entry.</p>
0678C	Workgroup Participants were satisfied with SSE's explanation which was based entirely on National Grid's.
0678D	No additional comments.
0678E	No additional comments.
0678F	No additional comments.
0678G	No additional comments.
0678H	No additional comments.
0678I	No additional comments.
0678J	<p>Workgroup Participants were satisfied with South Hook Gas' explanation which was based entirely on National Grid's.</p> <p>Some Workgroup Participants noted that a significant proportion of Existing Contracts were typically concluded for peak capacity on a long-term basis in order to signal initial capacity to support capital project investment and/or to provide assurance and visibility as to secured capacity costs over the term of the contract. This differs materially from the decision-making underpinning short term capacity contracting and the methodology for calculating the FCC values.</p>

<p>d) Securing of effective competition:</p> <p>(i) between relevant shippers;</p> <p>(ii) between relevant suppliers; and/or</p> <p>(iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.</p>	
Workgroup comments	
<p>All Modifications</p>	<p>Workgroup wished to note that this Standard Relevant Objective d) is almost identical to Charging Relevant Objective c):</p> <p><i>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;</i></p> <p>Therefore, the Workgroup's commentary relating to Charging Relevant Objective c) to be found above should be considered for this Standard Relevant Objective d) as well as the comments given below in this table.</p> <p>Workgroup Participants noted the linkage between cost reflectivity and facilitating competition. Predictability and stability of charges are also important factors in facilitating competition.</p> <p>Workgroup Participants noted that TAR NC may in some cases limit the benefits that can be brought to bear.</p> <p>Some Workgroup Participants noted that all CWD based modifications are broadly cost reflective because they use the TAR NC drivers of capacity and distance.</p> <p>Other Workgroup Participants noted that for a network that is no longer expanding and has excess capacity, then locational signals are not relevant in which case, the recovery of sunk costs is best achieved using a uniform non-discriminatory charge which is achieved using Postage Stamp Model.</p> <p>One Workgroup Participant noted that the use of the system is changing and indeed in respect of Milford Haven there is an expectation that incremental capacity will be provided.</p> <p>Some Workgroup Participants suggested gas destined for Milford Haven is unlikely to go to a different terminal.</p> <p>Some Workgroup Participants noted that neither the CWD or Postage Stamp reserve prices are forwarding looking and do not represent the cost of incremental capacity therefore it is not reasonable to justify either of them as cost reflective in relation to incremental capacity investment.</p>

	<p>Some Workgroup Participants expressed concern about the sources of data for the FCC. Some data, at the granularity required, does not seem to be publicly available, in particular the 'updated forecast'.</p> <p>National Grid clarified that the data necessary to inform the FCC has been provided.</p> <p>Existing Contracts</p> <p>The Workgroup noted that excluding Existing Contract revenue and volume from the methodology prior to the determination of reference prices leads to a significant difference in the price paid by Existing Capacity holders and parties buying capacity after 06 April 2017. This could have a detrimental impact on competition between these parties and create a barrier to entry. In Gas Year 2020/21 Existing Contracts account for 64% of entry FCC but only 16% of entry revenue. This results in the average price for new capacity purchases at beach terminals being 10x higher than the average price paid for existing capacity. (See analysis provided by Vermillion⁸⁴).</p> <p>Some Workgroup Participants noted that TAR NC Article 35 (Existing contracts) does provide protection to existing contracts. It should also be noted that under the current methodology, existing contract holders pay higher charges in the round (an additional TO commodity charge) than those who buy on the day.</p> <p>Workgroup Participants summarised that the current situation already provides an outcome where the same capacity product is charged at a different price depending on when you purchase it. This differential is likely to be exacerbated with a change of RPM. Specifically, the move away from a highly commodity-based charge (as is presently the case) to a mainly capacity based charge. This will be seen initially as a transition effect until such a time as the existing contracts expire.</p> <p>This is a feature of all Modifications currently under consideration.</p> <p>Some Workgroup Participants noted that this could be resolved by the introduction of a hand back mechanism, but a general hand back mechanism is not proposed.</p> <p>Some Workgroup Participants noted that this is because of the perceived objection to this approach by the NRA. National Grid had stated that this (the capacity regime) was out of scope for Modification 0678 as outlined in Modification 0678.</p>
All Postage Stamp Modifications	<p>All Entry Users pay the same price and all Exit Users pay the same price and therefore some Workgroup Participants believe it can be argued that there is a degree of cross subsidy and discrimination because Users are not paying roughly</p>

⁸⁴ Vermillion's 0678 analysis can be found here: <http://www.gasgovernance.co.uk/0678/Analysis>

	<p>in proportion to the costs, they create on the gas network. PS does not recognise any differentiation of costs for different Users by definition.</p> <p>Other Workgroup Participants noted that the methodology does not discriminate and does not create cross subsidy because it is based on allocation of historical sunk costs by capacity.</p>
All CWD Modifications	<p>Entry Users and Exit Users pay a price weighted by distance and FCC and therefore some Workgroup Participants believe it can be argued that there is a degree of cross subsidy and discrimination because Users are not paying roughly in proportion to the costs, they create on the gas network.</p> <p>Other Workgroup Participants noted that the methodology does not discriminate and does not create cross subsidy because it is based on allocation of historical sunk costs by distance and capacity.</p> <p>Some Workgroup Participants noted that the distance does not accurately apportion the historical sunk costs and therefore is not cost reflective and could be discriminatory against certain entry points on the system. For example, at Milford Haven the CWD model allocated costs based on the average distance to all exit points from entry terminal. However National Grid have published network analysis for Milford Haven (as part of UNC Modification 0645 - Amending the Oxygen content limits in the Network Entry Agreement at South Hook LNG)⁸⁵. This network analysis ('heat map') indicates this is not possible for Milford Haven to supply all Exit Points on the NTS. Therefore, showing the distance driver under the proposed CWD to be discriminatory. A more appropriate method may have been to use relevant flow scenarios, which more accurately reflect the use of the network, however this was not considered in any of the CWD modifications.</p> <p>Other Workgroup Participants wished to note in reference to historical sunk costs that within the RIIO-T2 playback document⁸⁶ the expected range of future cost largely covers maintenance and mains replacement. This confirms that there is significant ongoing cost of maintaining the network.</p>
0678	<p>Some Workgroup Participants expressed concern about the FCC Methodology where it sits outside of the UNC and the governance arrangements around it. This is felt to have a negative impact on competition.</p>

⁸⁵ See Figure 5 of the Final Modification Report 0645 (p.12) This can be found here:

https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/book/2018-05/Final%20Modification%20Report%200645S%20v3.0_0.pdf

⁸⁶ National Grid's RIIO-T2 Playback Document:

<https://www.nationalgridgas.com/document/125911/download>

	<p>Others were not sure there was a definitive link between governance arrangements outside the UNC and a negative impact on competition, rather there may be a potential impact on competition.</p> <p>Other Workgroup Participants noted that Ofgem has the opportunity to intervene, should it need to do so.</p> <p>Some Workgroup Participants noted that the current methodology on establishing the TO commodity charges is undertaken by National Grid without the same UNC governance.</p> <p>Some Workgroup Participants noted that if the FCC Methodology is not in the UNC, it could be changed at National Grid's discretion and could result in volatile unpredictable tariffs which could negatively impact competition.</p> <p>Others disagreed.</p> <p>Workgroup participants expressed concern that without further clarification it cannot be certain that compliance with Article 29 and 30 is achieved. Requiring publication in the UNC will ensure publication to interested parties in a timely and efficient manner thereby improving competition. At present Modification 0678 does not do this.</p>
0678A	<p>Some Workgroup Participants noted that for 0678A the FCC methodology sits under the UNC, which should provide greater regulatory oversight and more stability in relation to the FCC. This should be better for competition.</p> <p>Some Workgroup Participants were of the view that there was a lack of clarity as to how this would function in practice.</p>
0678B	<p>Some Workgroup Participants noted that effective competition relates to cost reflective charges.</p> <p>Some Workgroup Participants noted that CWD and a suitable Optional charge is an improvement over CWD and no optional charge as it addresses the high non-cost-reflective charges at proximate Entry and Exit Points. Overall CWD and an optional charge is an improvement over CWD and no optional charge and is thus better for competition because it is considered due discrimination that is fully justified.</p> <p>Other Workgroup Participants expressed the view that an Optional type charge maintains undue discriminatory treatment for certain Users. This will have a detrimental impact on competition.</p> <p>Some Workgroup Participants noted the Competition Commission ruling of 2007⁸⁷</p>

⁸⁷ The legal test for unlawful discrimination is addressed in paragraphs 6.58, 6.65 and 6.77 of this decision: Competition Commission ruling 2007: "E.ON UK plc v GEMA on Energy Code Modification UNC116: Decision": https://assets.publishing.service.gov.uk/media/55194bf440f0b6140400036a/eon_final_decision.pdf

	<p>which referred to a test for discrimination as to whether two parties are relevantly similar which may justify different treatment.</p> <p>Some Workgroup Participants noted that for 0678B the FCC methodology is defined in the UNC, which should provide greater regulatory oversight and more stability in relation to the FCC. This should be better for competition.</p> <p>Some Workgroup Participants considered that this approach best facilitated competition compared with other Modifications because it gives the greatest degree of certainty to Users of the network. Parties other than National Grid can propose and progress changes to the methodology via the normal UNC Modification process as a result.</p>
0678C	<p>Some Workgroup Participants noted that for 0678C the FCC methodology is defined in the UNC, which should provide greater regulatory oversight and more stability in relation to the FCC. This should be better for competition.</p> <p>Some Workgroup Participants considered that this approach best facilitated competition compared with other Modifications because it gives the greatest degree of certainty to Users of the network. Parties other than National Grid can propose and progress changes to the methodology via the normal UNC Modification process as a result.</p> <p>Some Workgroup Participants noted that under 0678C Revenue Recovery Charges are applied to Existing Entry Contracts and new entrants which will minimise price distortion and therefore this is better for competition.</p> <p>Some Workgroup Participants noted that the under 0678C the non-application of Revenue Recovery Charges associated with Existing contracts at Storage sites compared to non-Storage sites may be considered undue discrimination.</p> <p>Some Workgroup Participants highlighted that in Ofgem's Gas Transmission Charging Review (GTCR) final decision letter⁸⁸, Ofgem acknowledged that gas parked in storage has already paid revenue recovery charges to enter the NTS and then exit the NTS and to charge Revenue Recovery Charges on storage flows again would be double counting.</p> <p>Some Workgroup Participants highlighted that not all Storage facilities are captured within this proposal, which may negatively impact competition by treating the same class of Users in a different way.</p> <p>The Proposer's view is that the Rough facility referred to above is no longer a storage site and is therefore not treating the same class of Users in a different way.</p>

⁸⁸ Ofgem's Gas Transmission Charging Review (GTCR) final decision letter:

<https://www.ofgem.gov.uk/gas/transmission-networks/gas-transmission-charging-review>

	<p>Some Workgroup Participants highlighted the existing capacity at Easington and Abandoned Storage Capacity at Bacton was procured for the sole purpose of providing access to storage and therefore ought to be given the same treatment as other Storage sites.</p> <p>Workgroup Participants noted that with respect to an 80% discount rather than a 50% discount for storage, there is a ~1% - 2 % increase to all other Users charges using the National Grid sensitivity tool for 2019/20 and 2020/21 (from Vermilion's analysis material).</p> <p>Workgroup Participants noted Ofgem's comments that Storage facilities may be detrimentally impacted if the minimum (50%) discount is provided. The Workgroup noted that two storage facilities had closed within the last year due to adverse market conditions. This may impact on both competition within the storage market (due to concentration of market power) and within the market for (gas supply) flexibility, security of supply and network investment. Some Workgroup participants expect Ofgem to assess (through its RIA) whether the increased cost (1-2% for all other Users) is justified in this case.</p> <p>Some Workgroup participants agreed that it is due discrimination.</p> <p>Workgroup Participants noted the existence of the GSOG/WWA report⁸⁹ justifying the 80% Storage discount but had not had time to review this.</p>
0678D	<p>Workgroup Participants expressed concern about the FCC Methodology where it sits outside of the UNC and the governance arrangements around it. This is felt to have a negative impact on competition.</p> <p>Some Workgroup Participants noted that the current methodology on establishing the TO commodity charges is undertaken by National Grid without the same UNC governance.</p> <p>Some Workgroup Participants noted that if the FCC Methodology is not in the UNC, it could be changed at National Grid's discretion and could result in volatile unpredictable tariffs which could negatively impact competition.</p> <p>Others disagreed.</p> <p>Workgroup Participants expressed concern about the sources of data for the FCC. Workgroup participants expressed concern that without further clarification it cannot be certain that these will comply with TAR NC Article 29 and TAR NC Article 30. Having these within the UNC will ensure publication to interested parties in a timely and efficient manner thereby improving competition. At present Modification 0678D does not do this.</p>
0678E	<p>Workgroup Participants noted that with respect to an 80% discount rather than a 50% discount for storage, there is a ~1% -2 % increase to all other Users charges</p>

⁸⁹ Link for GSOG/WWA report justifying 80% storage discount: www.gasgovernance.co.uk/0678/

	<p>using the National Grid sensitivity tool for 2019/20 and 2020/21 (from Vermilion's analysis material).</p> <p>Workgroup Participants noted Ofgem's comments that Storage facilities may be detrimentally impacted if the minimum (50%) discount is provided. The Workgroup noted that two storage facilities had closed within the last year due to adverse market conditions. This may impact on both competition within the storage market (due to concentration of market power) and within the market for (gas supply) flexibility, security of supply and network investment. Some Workgroup Participants expect Ofgem to assess (through its Regulatory Impact Assessment (RIA)) whether the increased cost (1-2% for all other Users) is justified in this case.</p> <p>Some Workgroup Participants agreed that it is due discrimination.</p> <p>Workgroup Participants noted the existence of the GSOG/WWA report⁹⁰ justifying the 80% Storage discount but had not had time to review this.</p>
0678F	<p>Some Workgroup Participants noted 0678F has the addition of a capacity hand back type scheme which may introduce an amount of volatility to future charges, which may be detrimental to competition. The effect of hand back would be an increase in tariffs for all Entry Users.</p> <p>Other Workgroup Participants noted that without the hand back Users could hold capacity that they are no longer wished to use.</p> <p>Workgroup Participants noted that with respect to an 80% discount rather than a 50% discount for storage, there is a ~1% -2 % increase to all other Users charges using the National Grid sensitivity tool for 2019/20 and 2020/21 (from Vermilion's analysis material).</p> <p>Workgroup Participants noted Ofgem's comments in its Decision letter on Modification 0621, where there is concern expressed that Storage facilities may be detrimentally impacted if the minimum (50%) discount is provided⁹¹</p> <p>The Workgroup noted that two storage facilities had closed within the last year due to adverse market conditions. This may impact on both competition within the storage market (due to concentration of market power) and within the market for (gas supply) flexibility, security of supply and network investment. Some Workgroup participants expect Ofgem to assess (through its RIA) whether the increased cost (1-2% for all other Users) is justified in this case.</p> <p>Some Workgroup participants agreed that it is due discrimination.</p>

⁹⁰ Link for GSOG/WWA report justifying 80% storage discount: www.gasgovernance.co.uk/0678/

⁹¹ Ofgem's Decision letter on Modification 0621 (p. 17): www.gasgovernance.co.uk/0621

	Workgroup participants noted the existence of the GSOG/WWA report justifying the 80% Storage discount but had not had time to review this.
0678G	<p>Some Workgroup Participants noted that effective competition relates to cost reflective charges.</p> <p>Some Workgroup Participants noted that CWD and a suitable Optional charge is an improvement over CWD and no optional charge as it addresses the high non-cost-reflective charges at proximate Entry and Exit Points. Overall CWD and an optional charge is an improvement over CWD and no optional charge and is thus better for competition because it is considered due discrimination that is fully justified.</p> <p>Other Workgroup Participants expressed the view that an Optional type charge maintains undue discriminatory treatment for certain Users. This will have a detrimental impact on competition.</p> <p>Some Workgroup Participants noted the Competition Commission ruling of 2007⁹² which referred to a test for discrimination as to whether two parties are relevantly similar which may justify different treatment.</p>
0678H	<p>Some Workgroup Participants noted that effective competition relates to cost reflective charges.</p> <p>Some Workgroup Participants noted that PS and a suitable Optional charge is an improvement over PS and no optional charge as it addresses the high non-cost-reflective charges at proximate Entry and Exit Points. Overall PS and an optional charge is an improvement over PS and no optional charge and is thus better for competition because it is considered due discrimination that is fully justified.</p> <p>Other Workgroup Participants expressed the view that an Optional type charge maintains undue discriminatory treatment for certain Users. This will have a detrimental impact on competition.</p> <p>Some Workgroup Participants noted the Competition Commission ruling of 2007⁹³ which referred to a test for discrimination as to whether two parties are relevantly similar which may justify different treatment.</p>
0678I	No additional comments.

⁹² The legal test for unlawful discrimination is addressed in paragraphs 6.58, 6.65 and 6.77 of this decision: Competition Commission ruling 2007: "E.ON UK plc v GEMA on Energy Code Modification UNC116: Decision": https://assets.publishing.service.gov.uk/media/55194bf440f0b6140400036a/eon_final_decision.pdf

⁹³ The legal test for unlawful discrimination is addressed in paragraphs 6.58, 6.65 and 6.77 of this decision: Competition Commission ruling 2007: "E.ON UK plc v GEMA on Energy Code Modification UNC116: Decision": https://assets.publishing.service.gov.uk/media/55194bf440f0b6140400036a/eon_final_decision.pdf

0678J	<p>Some Workgroup Participants noted that PS and a suitable Optional charge is an improvement over PS and no optional charge as it addresses the high non-cost-reflective charges at proximate Entry and Exit Points. Overall PS with an optional charge is an improvement over PS and no optional charge and is thus better for competition because it is considered due discrimination that is fully justified.</p> <p>One Workgroup Participant expressed the view that an Optional type charge maintains undue discriminatory treatment for certain Users. This will have a detrimental impact on competition.</p> <p>Some Workgroup Participants noted the Competition Commission ruling of 2007⁹⁴ which referred to a test for discrimination as to whether two parties are relevantly similar which may justify different treatment.</p>
--------------	--

<p>e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards are satisfied as respects the availability of gas to their domestic customers.</p>	
<p>Workgroup comments</p>	
All Modifications	Workgroup participants agreed this was not relevant.

<p>f) Promotion of efficiency in the implementation and administration of the Code.</p>	
<p>Workgroup comments</p>	
All Modifications	Workgroup participants agreed this was not relevant.

⁹⁴ The legal test for unlawful discrimination is addressed in paragraphs 6.58, 6.65 and 6.77 of this decision: Competition Commission ruling 2007: "E.ON UK plc v GEMA on Energy Code Modification UNC116: Decision": https://assets.publishing.service.gov.uk/media/55194bf440f0b6140400036a/eon_final_decision.pdf

g) 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.

Workgroup comments

All Modifications

Workgroup Participants noted that all 0678 Modifications under consideration are an improvement over the current charging methodology, i.e. they positively impact this Relevant Objective g).

Workgroup Participants wished to highlight to readers of the Workgroup Report, the UNC Modification Panel and Ofgem, that the section of the Workgroup Report should be read in conjunction with **Section 4.9 of the Workgroup Report – TAR NC Compliance Assessments**. In addition, readers should consult the individual compliance assessments contained as appendices to the Modifications or referenced in Part II.

Workgroup participants noted that it could be argued that 0678 and 0678A provide two foundational Modifications with what could be argued as a minimum approach implementation of TAR NC. Other Modifications add in additional areas felt to be of importance to their Proposers which can be justified separately under TAR NC whilst it should be noted that UNC 0670R could be argued to be doing this too.

Workgroup participants noted that in relation to the potential for non-01 October Effective Dates, that these could be non-compliant with TAR NC Article 6 (3) due to the IP charges being set for a year.

Workgroup Participants noted that Modifications 0678C and 0678I only allow for 01 October Effective Dates.

Workgroup Participants noted that Ofgem will take this issue into account and that Ofgem has indicated to Workgroup that Ofgem appreciates the flexibility to implement on a non-01 October Effective Date.

Workgroup Participants recognised that Ofgem will have to make their own assessment on Compliance.

The **Table 20** below provides a summary of the Proposer's assessment against each **Charging Methodology Relevant Objective**. It also includes details of the version of the Modification and the Relevant Objectives contained within it which have been considered as part of the Workgroup's assessment of the Charging Methodology Relevant Objectives.

Table 19: Summary of Proposer's assessment against each Charging Methodology Relevant Objectives

Charging Relevant Objective	0678	0678A	0678B	0678C	0678D	0678E	0678F	0678G	0678H	0678I	0678J
	National Grid V4	RWE V3	Centrica V3	SSE V5	ENI V5	Gateway Energy V3	Storengy V4	Vitol V4	EP UK V5	Gazprom V5	South Hook Gas V3
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	None	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
aa) That, in so far as prices in respect of transportation arrangements are established by auction, either: no reserve price is applied, or that reserve price is set at a level - (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	None	Positive	None	Positive	Positive	Positive	Positive	Positive	Positive	Positive

Charging Relevant Objective	0678	0678A	0678B	0678C	0678D	0678E	0678F	0678G	0678H	0678I	0678J
	National Grid V4	RWE V3	Centrica V3	SSE V5	ENI V5	Gateway Energy V3	Storengy V4	Vitol V4	EP UK V5	Gazprom V5	South Hook Gas V3
b) That, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business;	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	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;	Positive	None	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive
d) That the charging methodology reflects any alternative arrangements put in place in accordance with a determination made by the Secretary of State under paragraph 2A(a) of Standard Special Condition A27 (Disposal of Assets).	None	None	None	None	None	None	None	None	None	None	None
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	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive	Positive

Workgroup Assessment of Impacts of the modification on the Relevant Charging Methodology Objectives.

Table 20: Impact of the Modifications on the Charging Relevant Objectives

Impact of the modification on the Charging Relevant 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 – 0678/B/C/D/E/F/G/H/I/J None – 0678A
aa) That, in so far as prices in respect of transportation arrangements are established by auction, either: (i) no reserve price is applied, or (ii) that reserve price is set at a level - (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 – 0678/B/D/E/F/G/H/I/J None – 0678A/C
b) That, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business;	Positive – 0678/A/B/C/D/E/F/G/H/I/J
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;	Positive – 0678/B/C/D/E/F/G/H/I/J None – 0678A
d) That the charging methodology reflects any alternative arrangements put in place in accordance with a determination made by the Secretary of State under paragraph 2A(a) of Standard Special Condition A27 (Disposal of Assets).	None - 0678/A/B/C/D/E/F/G/H/I/J
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 – 0678/A/B/C/D/E/F/G/H/I/J

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;	
Workgroup comments	
All Modifications	<p>Workgroup noted that cost reflectivity is subjective and is not defined for this Relevant Objective.</p> <p>Some Workgroup Participants noted that for this Relevant Objective, it is very difficult to differentiate between CWD and PS as the main RPM. A case can be made for either or both. In which case, it may be that the other Relevant Objectives are more pertinent for the assessment of these 0678 Modifications.</p>

	<p>Some Workgroup participants noted that there may be a difference between 'costs incurred' as defined in TAR NC and the allowed revenue as defined by National Grid's license.</p> <p>Some Workgroup Participants noted that any of the methodologies propose a method of distribution of revenue across the network (operation under revenue control).</p> <p>Some Workgroup Participants noted that use of CWD cost drivers (a combination of capacity and distance) better reflect the cost drivers of investment in the network compared with PS. PS is not designed to reflect any drivers of cost.</p> <p>Some Workgroup Participants noted however, that the distance drivers under CWD model assume the ability to flow from every entry point to every exit point and do not realistically reflect the use of the network and therefore incorrectly apportions network costs, leading to potential discriminatory pricing for certain sites. A more appropriate method may have been to use relevant flow scenarios, which reflect the use of the network, however this was not considered in any of the modifications.</p>
0678	No additional comments.
0678A	<p>Workgroup noted the material in Annex 1: "0678A Some thoughts on Cost Recovery associated with 0678A Postage Stamp RPM" This can be found at the end of the Analysis prepared by RWE focusing on 0678A:</p> <p>http://www.gasgovernance.co.uk/0678/Analysis</p> <p>Workgroup noted this analysis and the Proposers assessment against this Relevant Objective.</p>
0678B	Some Workgroup participants suggested that 0678B with CWD and the optional charge goes some way to compensate for the CWD effect of higher charges at exit points close to entry points and thus improves its cost reflectivity better than if the optional charge were not included.
0678C	No additional comments.
0678D	Some Workgroup participants suggested that 0678D with CWD and the optional charge goes some way to compensate for the CWD effect of higher charges at Exit Points close to Entry Points and thus improves its cost reflectivity better than if the optional charge were not included.
0678E	No additional comments.
0678F	No additional comments.
0678G	Some Workgroup participants suggested that 0678G with CWD and the optional charge goes some way to compensate for the CWD effect of higher charges at Exit Points close to Entry Points and thus improves its cost reflectivity better than if the optional charge were not included.
0678H	Some Workgroup participants suggested that 0678H with PS and the optional charge goes some way to compensate for the effect of higher charges at Exit Points close to

	Entry Points and thus improves its cost reflectivity better than if the optional charge were not included.
0678I	Some Workgroup Participants suggested that 0678I with CWD and the Wheeling charge goes some way to compensate for the CWD effect of higher charges at routes with zero km distance and thus improves its cost reflectivity better than if the Wheeling charge were not included.
0678J	Some Workgroup participants suggested that 0678J with PS and the optional charge goes some way to compensate for the effect of higher charges at Exit Points close to Entry Points and thus improves its cost reflectivity better than if the optional charge were not included.

<p>aa) That, in so far as prices in respect of transportation arrangements are established by auction, either:</p> <ul style="list-style-type: none"> i. no reserve price is applied, or ii. that reserve price is set at a level - iii. best calculated to promote efficiency and avoid undue preference in the supply of transportation services; and iv. best calculated to promote competition between gas suppliers and between gas shippers; 	
Workgroup comments	
<p>All Modifications</p>	<p>Some Workgroup Participants noted that moving to multipliers set to 1 mean that short and long term purchases will in future be on the same footing.</p> <p>Some Workgroup Participants suggested that this addresses the avoidance of undue preference.</p> <p>Some Workgroup Participants considered that drawing the comparison to the electricity TCR is potentially an over simplification if it were to be applied to the gas industry.</p> <p>Some Workgroup Participants noted that competition is best facilitated when supported by cost reflective charges. Economic principles say that cost reflective charges should reflect the forward-looking marginal costs with residuals recovered uniformly (in a flat non-distortive manner) ⁹⁵.</p> <p>One of the main principles in the electricity TCR is reduction of harmful distortions by separating charges into forward looking and residual charges. It can be argued that for the gas network, the focus could be on the residual charges.</p> <p>Some Workgroup Participants felt that this is best achieved through the use of PS Methodology.</p> <p>Other Workgroup Participants felt that retaining a locational element is appropriate through the use of CWD.</p>

⁹⁵ Frontier Economics report on the future of gas regulation (UK Committee on Climate Change):

<https://www.frontier-economics.com/uk/en/news-and-articles/news/news-article-i1784-uk-committee-on-climate-change-publishes-frontier-report-on-the-future-of-gas-regulation/>

b) That, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business;

Workgroup comments

All Modifications

Some Workgroup Participants noted compliance with TAR NC can be considered a development in the transportation business.

Workgroup Participants agreed with Proposers that in implementing a new RPM in line with TAR NC this Relevant Objective is furthered.

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;

Workgroup comments

All Modifications

Workgroup wished to note that this Charging Relevant Objective c) is almost identical to Standard Relevant Objective 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.

Therefore, the Workgroup's commentary relating to Standard Relevant Objective d) to be found above should be considered for this Charging Relevant Objective c) as well as the comments given below in this table.

Some Workgroup Participants noted that all CWD based modifications are broadly cost reflective because they use the TAR NC drivers of capacity and distance.

Other Workgroup participants noted that for a network that is no longer expanding and has excess capacity, then locational signals are not relevant in which case, the recovery of sunk costs is best achieved using a uniform non-discriminatory charge which is achieved using Postage Stamp Model.

One Workgroup participant noted that the use of the system is changing and indeed in respect of Milford Haven there is an expectation that incremental capacity will be provided.

Some Workgroup participants suggested gas destined for Milford Haven is unlikely to go to a different terminal.

A Workgroup participant noted that neither the CWD or PS reserve prices are forwarding looking and do not represent the cost of incremental capacity therefore it is not reasonable to justify either of them as cost reflective in regard to incremental capacity investment. In fact, with the current regulatory framework, both CWD and PS could result in a user applying for incremental capacity paying in excess of the actual NTS

	investment costs, negatively impacting competition and providing increased barriers to entry.
0678	No additional comments.
0678A	No additional comments.
0678B	Some Workgroup Participants noted that effective competition relates to cost reflective charges. Some Workgroup Participants noted that CWD and an optional charge is an improvement over CWD and no optional charge.
0678C	No additional comments.
0678D	No additional comments.
0678E	No additional comments.
0678F	No additional comments.
0678G	No additional comments.
0678H	No additional comments.
0678I	No additional comments.
0678J	No additional comments.

d) That the charging methodology reflects any alternative arrangements put in place in accordance with a determination made by the Secretary of State under paragraph 2A(a) of Standard Special Condition A27 (Disposal of Assets).

Workgroup comments

All Modifications	Workgroup participants agreed this was not relevant.
--------------------------	--

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.

Workgroup comments

All Modifications	<p>Workgroup Participants noted that all 0678 Modifications under consideration are an improvement over the current charging methodology, i.e. they positively impact this Relevant Objective e).</p> <p>Workgroup Participants wished to highlight to readers of the Workgroup Report, the UNC Modification Panel and Ofgem, that this Section of the Workgroup Report should be read</p>
--------------------------	--

	<p>in conjunction with Section 4.10 of the Workgroup Report – Compliance. In addition, readers should consult the individual compliance assessments contained as appendices to the Modifications or referenced in Part II of this report.</p> <p>Workgroup Participants noted that it could be argued that 0678 and 0678A provide two foundational Modifications with, what could be argued as a minimum approach implementation of TAR NC. Other Modifications add in additional areas felt to be of importance to their Proposers, which can be justified separately under TAR NC.</p> <p>Some Workgroup Participants noted that separate Modification 0670R (Review of the charging methodology to avoid the inefficient bypass of the NTS) could be argued to be along these lines too.</p> <p>Workgroup Participants noted that in relation to the potential for non-01 October Effective Dates, that these could be non-compliant with TAR NC Article 6 (3) due to the IP charges being set for a year.</p> <p>Workgroup Participants noted that Modifications 0678C and 0678I only allow for 01 October Effective Dates.</p> <p>Workgroup Participants noted that Ofgem will take this issue into account and that Ofgem has indicated to Workgroup that Ofgem appreciates the flexibility to implement on a non-01 October Effective Date.</p> <p>Workgroup Participants recognised that Ofgem will have to make their own assessment on Compliance.</p>
--	---

6 Legal Text

Workgroup review of Legal Text 27 February 2019

On 27 February 2019 Workgroup reviewed the Legal Text prepared for Modification 0678⁹⁶ including:

- Modification 0678 - Draft Legal Text – This is full instructions on what Legal Text changes are required and refers to the other four documents for areas of significant drafting change.
- Modification 0678 - Annex A Draft Legal Text TPD B
- Modification 0678 - Annex B Draft Legal Text - TPD Y Part I-A
- Modification 0678 - Annex C Draft Legal Text - TDIIIC
- Modification 0678 - Annex C Draft Legal Text – TDIIIC.

Some changes were noted and were envisaged to be required. A key discussion was on the consequences of a within-year effective date. National Grid agreed to consider this matter further in regard to 0678. Proposers of Alternatives also agreed to consider whether their Modifications should explicitly state whether a within-year effective date is envisaged.

At the Workgroup meeting on 27 February 2019, Workgroup Participants expressed deep concern that the timelines at that time did not allow Workgroup to review any further Legal Text; noting that several of the Alternatives include drastically different elements. Industry was at that time scheduled to therefore have very little if any opportunity to examine such Legal Text. Such Legal Text will then only have been reviewed by those drafting it, the Transporter responsible for drafting and the Proposer. Workgroup Participants were concerned at the lack of opportunity to review the legal text given the significant variations in some of the many Alternatives.

Workgroup Participants requested that the UNC Modification Panel consider on 01 March 2019 how the provision of Legal Text is properly reviewed, noting that the full complement of Legal Text will be provided during the consultation period. For example, how much before the end of the consultation period could Legal Text be provided in order to enable consultation responses to be amended once the legal text is available for reviewing. Workgroup Participants asked Panel to note that some of the Alternatives contain significant variations from 0678.

The above request to the UNC Modification Panel was somewhat overtaken by the Independent Panel Chair writing to Ofgem on 28 February 2019 outlining concerns relating to the 0678 timetable. Therefore, the matter was not considered at the 01 March 2019 extraordinary Panel.

Ofgem's decision received at Workgroup verbally on 06 March and published on 08 March 2019 extended the timetable.

Workgroup review of Legal Text 04 April 2019⁹⁷

Workgroup Participants wished to note that documentation to support a second review of 0678 Legal Text and a first review of Legal Text for Alternatives was published late on 02 April 2019 with a substantial update

⁹⁶ Documentation reviewed at Workgroup meeting 27 February 2019 can be found here:

www.gasgovernance.co.uk/0678/270219

⁹⁷ Documentation reviewed at Workgroup meeting 04 April 2019 can be found here:

www.gasgovernance.co.uk/0678/040419

published on 03 April 2019. This gave very little, if any, time for consideration of the Legal Text, in particular, to check that it matched the solution of each Modification.

Workgroup Participants noted when reviewing the legal text for 0678D/G/H/J that a document 'NTS OCC Methodology' (referred to in text in Section Y 5.2.2) would need to be revised or created if any of these Modifications are implemented. Similarly, an NTS OWC Methodology will also be required for Modification 0678I. In addition, Workgroup Participants noted there was a reasonable amount of clarification remaining around Attachment #5 (Section Y).

Workgroup Participants noted that when considering Legal Text for 0678F for the avoidance of doubt, surrender is termed 'cancellation condition'.

07 April 2019

National Grid confirmed for Workgroup that a draft OCC Methodology statement and a proposed OWC Methodology statement has now been proposed by National Grid for use with those Alternative Modifications which require it.

The Proposers of 0678D, 0678G, 0678H and 0678J have incorporated this draft OCC Methodology statement into their Modifications which were amended after discussions on 05 April 2019.

National Grid confirmed it had sent Legal Text to Proposers on 10 April 2019 and asked Proposers to confirm they were satisfied the text reflects the requirements contained with their Modifications.

Workgroup noted that it had not seen the final Legal Text for the Modifications.

However, for Modification 0678 the version last seen by Workgroup on 04 April 2019 was very nearly final and National Grid confirmed that some minor drafting changes had been made since.

Final Legal Text for the Alternative Modifications will be published as soon as the Proposers have had a chance to fully review it. National Grid confirmed this is expected to be by close of play on 16 April 2019.

Workgroup noted that the consultation begins on 15 April 2019 and ends on 08 May 2019.

Text Commentary

National Grid confirmed this would be published by close of play on 18 April 2019.

Text

Legal Text will be published by close of play on 16 April 2019 here:

<http://www.gasgovernance.co.uk/0678/text>

At the time of publication of the Draft Modification Report on 12 April 2019, National Grid informed the Joint Office that they had not received final agreement from all Proposers for their Legal Text. Workgroup reviewed initial Legal Text on two occasions⁹⁸ and was keen to review the final Legal Text for all of the Modifications wherever possible.

⁹⁸ Workgroup meetings on 27 February 2019 and 04 April 2019. Documentation reviewed at these meetings can be found here: www.gasgovernance.co.uk/0678/270219 and www.gasgovernance.co.uk/0678/040419

7 Recommendations

Workgroup's Recommendation

The Workgroup Report has been completed in line with the recommended timetable. Workgroup recommends this Workgroup Report should now proceed to consultation.

Workgroup wished to highlight several areas for consultation respondents as follows:

- The Workgroup Report structure consists of **Part I and a Part II** for each of the eleven Modification proposed. Respondents should read the report in its entirety in order to see the full picture of what is being proposed.
- There are various trade-offs to be considered.

Ofgem requested the following questions be asked as part of the consultation:

1. What impact, if any, do you think tariff differentials between existing and new contracts will have on Users' booking behaviour?
2. What date should the changes proposed by the Modifications become effective and why?
3. The Proposals have different specific capacity discounts for storage sites. What level of storage discount do you consider is appropriate and can you provide clear justification if the discount is greater than 50%?
4. Can you provide reasons why an NTS Optional Charge is or is not justified? If you consider an NTS Optional Charge is justified, which Proposal do you prefer and why is it compliant with TAR NC?
5. 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?
6. It is proposed that National Grid Gas may review or update the Forecasted Contracted Capacity (FCC) Methodology following consultation with stakeholders, unless Ofgem (upon application by any Shipper or Distribution Network Operator) directs that the change is not made as per its powers under Standard Special Condition A11(18) of National Grid's Licence. Do you believe that this governance framework is fit for purpose? Please provide reasons for your answer.