

Modification proposal:	Uniform Network Code (UNC) 621/A/B/C/D/E/F/H/J/K/L: Amendments to Gas Transmission Charging Regime (UNC621)		
Decision:	The Authority ¹ has decided to reject this modification ²		
Target audience:	UNC Panel, Parties to the UNC and other interested parties		
Date of publication:	20 December 2018	Implementation date:	N/A

Background to the modification

The Tariff Network Code ("**TAR NC**")³ entered into force on 6 April 2017 with some provisions to apply from October 2017 and the remaining provisions to be in place by May 2019. TAR NC sets out a range of principles and specific requirements that necessitate changes to the gas transmission charging arrangements in Great Britain ("**GB**"). These changes are expected to be implemented in GB via changes to the charging methodology in the Uniform Network Code ("**UNC**").

In 2015, Ofgem concluded its review (the "Gas Transmission Charging Review, **GTCR**") of gas transmission entry charging arrangements. We undertook the review in light of significant and ongoing changes to the patterns of gas flows on the National Transmission System ("**NTS**") and the (at the time) emerging TAR NC. In November 2015,⁴ and again in February 2017,⁵ we set out our policy views to provide further clarity on the scope of changes to be brought forward as a consequence of the GTCR and TAR NC. We invited National Grid Gas Transmission ("**NGGT**") and industry to lead this work via the UNC code modification process. After leading its own review ("the Gas Charging Review, **GCR**"),⁶ industry developed UNC621 and 10 alternative proposals ("**UNC621A – L**").⁷

Key Features of the Tariff Network Code

The goal of the TAR NC is to harmonise transmission tariff structures for gas to contribute to European market integration, enhance security of supply and promote interconnection between gas networks. The scope of specific TAR NC provisions varies based on whether they are applied to an Interconnection Point ("**IP**") or non-Interconnection Point ("**non-IP**"). The principles of TAR NC generally apply to both IPs and non-IPs, but TAR NC is more prescriptive with respect to IPs.

TAR NC specifies the format of network charges depending on the 'service' they relate to. The Transmission System Operator ("**TSO**", NGGT in GB) provides services for which they recover their allowed revenues. TAR NC divides these into 'transmission' and 'non transmission services', and specifies the format of charges levied for each. TAR NC specifies that by default, revenues for transmission services are recovered via capacity-

¹ References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day to day work. This decision is made by or on behalf of GEMA.

² This document is notice of the reasons for this decision as required by section 38A of the Gas Act 1986.

³ Commission Regulation 2017/460.

⁴ Confirmation of policy view, 13 November 2015:

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

⁵ Open Letter, 21 February 2017:

https://www.ofgem.gov.uk/system/files/docs/2017/02/gas_transmission_charging_policy_view_21_feb_2017.pdf.

⁶ Joint Office NTS Charging Methodology Forum (NTS CMF) Gas Charging Review.

⁷ Referred to collectively as the 'UNC621 modifications' or 'UNC621 or any of its alternative modification proposals (UNC621A-L)'. These terms are used interchangeably in this document. UNC621G was withdrawn by its proposer during the modification development process. There was no UNC621I proposed.

based tariffs, and only allows the use of commodity-based tariffs for recovering transmission services revenues by exception. When certain criteria, listed in the TAR NC, are met, commodity-based tariffs may be used for recovering flow-based costs and for managing revenue recovery. Separate 'non-transmission' tariffs may be levied to recover revenue for non-transmission services. TAR NC allows a greater degree of National Regulatory Authority ("**NRA**") discretion regarding the format of these tariffs.

The allocation of transmission services revenues should be determined using the reference price methodology ("**RPM**"). The RPM is central to the implementation of TAR NC and a key determinant for how NGGT's allowed revenues should be allocated among individual entry and exit points, and the format in which NGGT recovers its transmission services revenue. TAR NC requires that the need for reconciliation of transmission services revenue is minimised, and where it is necessary, that revenue under-/over-recovery is addressed in a timely manner, with significant differences between tariffs in consecutive tariff periods avoided to the extent possible.

TAR NC does not prescribe what the RPM should be, but requires Ofgem, as the NRA, to assess the compliance of the RPM against five principles:

- *Reproducibility* – network users should know the methodology to derive tariffs and should be able to reproduce the tariff calculations;
- *Cost-reflectivity* – tariffs should reflect the costs incurred by the TSO;
- *Non-discrimination* – to the extent possible, NRAs should avoid cross-subsidies where some network users pay for others;
- *Volume risk management* – this is to ensure that significant volume risk is not assigned to final consumers;
- *Non-distortion of cross border trade* – the RPM should ensure non-distortive economic signals for cross-border trade.

There are a number of inputs into the RPM and adjustments to the outputs that can be made. For example, TAR NC specifies a range of discounts and/or premia that may apply to the reference price for different users (eg a discount of at least 50% must be applied to capacity-based tariffs for entry and exit points at storage facilities). Where relevant, we discuss these inputs and adjustments in the following sections.

The modification proposals

UNC621 was raised by NGGT in June 2017 with the intention to implement the necessary changes required by TAR NC, as well as to introduce wider changes to the GB transmission charging methodology. On 8 March 2018, we directed NGGT to undertake specific tasks to implement aspects of TAR NC.⁸ Among other things, we directed NGGT to use reasonable endeavours to ensure the timely development of UNC621 ("**Direction**"). In addition, we directed NGGT to undertake a preliminary consultation pursuant to Article 26 of TAR NC, at the same time as the UNC621 industry consultation. The UNC621 Working Group developed 10 alternative modification proposals to UNC621⁹ (ie UNC621A-L).

The Joint Office carried out a consultation on the modification proposals. NGGT carried out an additional consultation on the compliance of the modification proposals with TAR

⁸ Decision to direct National Grid Gas plc (8 March 2018):

https://www.ofgem.gov.uk/system/files/docs/2018/03/ngg_direction_-_decision.pdf.

⁹ Modification Proposals UNC 621/A/B/C/D/E/F/H/J/K/L.

NC (preliminary Article 26 consultation), as per the Direction. We received the Final Modification Report ("**FMR**") on 24 July 2018.

UNC621 modification proposals

While specific treatments of charges vary among the proposals (see Annex 1), the UNC621 modifications are comprised of five core components:

1. The RPM (ie the process by which the capacity price (see below) is determined);
2. Capacity price adjustments including the treatment of temporal (see below) capacity prices and discounts on the capacity price for specific users (eg shippers using storage facilities);
3. The Revenue Recovery Charge to manage any over-/under- recovery of NGGT's allowed revenue;
4. The NTS Optional Charge ("**NOC**") intended to address inefficient by-pass of the NTS; and
5. Charges for Non-Transmission Services (eg the Pensions Deficit charge).

As noted above, the RPM is central to the TAR NC. Its application provides the reference price for all points on the network that is the price for an annual capacity product (ie access rights to the NTS for a full gas year). The reference price is subjected to permissible adjustments to provide the capacity reserve price. The reserve price is used as the minimum price for which capacity can be sold at auction (the auction floor price). Capacity is sold in different temporal tranches including: annual, quarterly, monthly, daily and within-day products.

UNC Panel¹⁰ recommendation

The UNC Panel voted on the UNC621 modifications by reference to the applicable UNC objectives at a meeting on 19 July 2018. The Panel voted not to implement UNC621 or any of its alternative modification proposals (UNC621A-L) on the basis that none better facilitated the relevant code objectives.¹¹ None of the modification proposals received more than two Panel votes. The Panel did not support the implementation of UNC621 or any of its alternative modification proposals because in its view¹² there was insufficient:

- Analysis provided by the UNC621 Working Group, particularly regarding impacts of the charging methodology on behavioural change;
- Consideration as to whether aspects of the proposals were compliant; and
- Development of the proposals such that the Panel felt this introduced uncertainty that would negatively impact network users (eg NGGT's proposed use of an as yet undefined methodology for forecasting capacity).¹³

Our assessment

We carried out a detailed assessment of the compliance of common aspects of UNC621 and its alternative modification proposals (UNC621A-L) with EU law. This assessment, the main findings of which are presented below, is the basis for our decision.

¹⁰ The UNC Panel is established and constituted from time to time pursuant to and in accordance with the UNC Modification Rules.

¹¹ Panel Members considered that standard relevant objectives (d) and (g) were the most important for the UNC621 modifications.

¹² The compliance concerns referred to Articles 5, 6(3), 6(4), 8(1), and 17(1) of TAR NC.

¹³ UNC621 FMR, page 101: <https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/page/2018-07/Part%20I%20Final%20Modification%20Report%200621%200621ABCDEFHJKL%20v3.0.pdf>.

Our decision

We have considered the issues raised by the modification proposals and the FMR, dated 19 July 2018. We have considered and taken into account the responses to the industry consultation on the modification proposals, which are attached to the FMR¹⁴ and the responses to the preliminary TAR NC Article 26 consultation carried out by NGGT.

For the reasons set out below, we have concluded that neither UNC621 nor any of its alternative modification proposals (UNC621A-L) are compliant with the TAR NC.¹⁵ Because of this, we are unable to conclude that implementation of any of the UNC621 modification proposals would better facilitate UNC Objective (e) - *Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for Co-operation of Energy Regulators*. Therefore we cannot implement UNC621 or any of its alternative modification proposals. In view of this, we expect industry to ensure GB is compliant with the requirements of the TAR NC as soon as possible.

In view of that decision, it is not necessary to carry out an impact assessment under section 5A of the Utilities Act 2000: the proposals are not compliant and are not to be implemented.

Reasons for our decision

The UNC621 modifications seek to implement the TAR NC, which GB must be compliant with by May 2019. Having assessed the compliance of the proposals, we conclude that the proposals are not compliant with the TAR NC.

Compliance assessment

Our compliance assessment focused on three issues on the basis that they are either cumulatively or individually relevant to all of the UNC621 modifications (see further Annex 1). The issues of identified non-compliance are:

- The creation of 'interim contracts';
- The content of the proposed 'transition period'; and
- The NTS Optional Charge.

Where there are differences among the different proposals as regards the three areas mentioned above, we have examined these discrete features, as appropriate.

Interim contracts

Article 35 of TAR NC provides protections for contracts or capacity bookings concluded before 6 April 2017 (ie the date of entry into force of TAR NC). This provision intends to maintain the level of transmission tariff for contracts (capacity bookings in GB) concluded

¹⁴ UNC modification proposals, modification reports and representations can be viewed on the Joint Office of Gas Transporters website at www.gasgovernance.co.uk.

¹⁵ As set out in Standard Special Condition A11(1) of the Gas Transporters Licence, see: <http://epr.ofgem.gov.uk/Pages/EPRInformation.aspx?doc=http%3a%2f%2fepr.ofgem.gov.uk%2fEPRFiles%2fStandard+Special+Condition+PART+A+-+Consolidated+-+Current+Version.pdf>.

before TAR NC entered into force. TAR NC refers to these capacity bookings as “Existing Contracts”.

Currently,¹⁶ entry capacity in GB can be booked via auctions on a fixed price basis, for up to 17 years into the future. Exit capacity is booked based on administered prices that are re-calculated annually. As such, exit capacity bookings are not considered to be fixed-price bookings and not protected by the provisions of Article 35. TAR NC provides that the level of transmission tariffs for capacity bookings shall not be affected by it, in the specific circumstances set out in TAR NC Article 35(1). Those circumstances are where both (a) the contracts or capacity bookings were concluded before 6 April 2017, and (b) 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.

However, the UNC621 modifications seek to extend this treatment to all entry capacity bookings made prior to the month in which Ofgem’s decision to accept UNC621 (or any of its alternatives) is made, in a manner which goes beyond anything provided for by TAR NC or Article 35 in particular. The UNC621 modifications define capacity bookings made between 7 April 2017 and the end of the month when Ofgem’s decision to accept is made as “interim contracts”. The combination of “interim contracts” and “existing contracts” are referred to by the UNC621 modifications as “historical contracts”. All alternative proposals adopt the concept of “historical contracts”. To date, approximately £40 million worth of entry capacity has been purchased that would fall under the definition of “interim contracts”.

There is no indication in the drafting of TAR NC, either in the wording of Article 35 or elsewhere, that fixed-price contracts and capacity bookings concluded after 6 April 2017, merit the same treatment as those concluded before that date. To the contrary, it is clear that they do not. It is only existing contracts concluded before that date that remain unaffected, and then only those that foresee no change in the level of tariffs (except for indexation). Contracts or bookings entered into after that date are to be taken as entered into in the knowledge that the TAR NC would in future apply.

In particular, Article 38 of TAR NC expressly states that the rules on RPM, Reserve Prices, and Reconciliation of Revenue (Chapters II, III, IV) shall apply from 31 May 2019. We note that TAR NC was published in the Official Journal of the European Union on 17 March 2017, and the GB gas sector has been well aware of the proposed changes and Ofgem’s views on the process to implement TAR NC since 2015.¹⁷ 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. To the extent that users have entered into such contracts or do so in future, they do so whilst being aware that the rules governing such contracts will change in line with known requirements, and that TAR NC only gives protection for contracts entered into before 6 April 2017. The approach set out in the UNC621 modifications would entail that users have a right to contract on the basis of the existing UNC arrangements, notwithstanding knowledge of the effect of TAR NC. While we recognise that NGGT cannot apply any revised prices until changes to their methodology

¹⁶ In 2017, UNC0611 introduced the concept of floating payable prices for IPs (this means that IP entry capacity is no longer bought on a fixed price basis where price is fixed at auction). However, entry capacity for non-IPs is still bought on a fixed price basis.

¹⁷ Confirmation of Ofgem policy view <https://www.ofgem.gov.uk/publications-and-updates/gas-transmission-charging-review-confirmation-policy-view-and-next-steps>.

are approved, that does not mean that such changes to methodologies, when approved, should not apply with effect from 31 May 2019 to any "interim" contracts entered into in the meantime.

Interim contracts are not therefore a recognised category of contract under TAR NC. We note that the FMR advocates a rationale for interim contracts based on commercial considerations rather than an assessment of their legal compliance.¹⁸

We also note that while some substantive provisions of TAR NC only relate to IPs, Article 35 is not identified as being such a provision.¹⁹ Accordingly, there is no basis for concluding that Article 35 does not operate in respect of contracts and capacity bookings for non-IPs.

We conclude that the treatment by the UNC621 modifications of so-called "interim contracts" is not consistent with either a literal or a purposive reading of Article 35 TAR NC, insofar as they are intended to be ring-fenced from the introduction of any new pricing methodology that implements the TAR NC with effect after 31 May 2019.

Transition period

The majority of the UNC621 modifications advocate a phased approach to implementation of the TAR NC requirements through the creation of a transition period. In most cases, the proposals advocate a two-year transition period (2019/20-2021/22).²⁰ Key features of the transition period include:

- An approximation of "Forecasted Contracted Capacity ("**FCC**")";
- The continued use of a commodity-based revenue recovery charge, which would recover a significant proportion of revenue as a result of the approximation of FCC;
- A separate work-stream to develop an 'enduring' methodology to forecast the FCC value(s); and
- The use of a commodity-based NTS optional charge (discussed below).

The proposed transition period gives rise to two regimes (transition from 2019/20-2021/22 versus enduring period post-2021/22²¹) with significantly different charging arrangements. We note 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; however, we note that any methodology in effect from 31 May 2019 must in itself be compliant with the substantive requirements of TAR NC.

¹⁸ Final Modification Report (FMR) page 14 <http://www.gasgovernance.co.uk/sites/default/files/ggf/page/2018-07/Part%20I%20Final%20Modification%20Report%200621%200621ABCDEFHJKL%20v3.0.pdf>.

¹⁹ Article 2 of TAR NC, titled "scope" provides that TAR NC shall apply to all entry points and all exit points of gas transmission networks with the exception of Chapters III, V, VI, Article 28, Article 31(2) and (3) and Chapter IX which shall apply only to IPs. Consequently, Article 35 is intended to apply both to IPs and non-IPs. Had it been the intention of the drafters to limit the operation of Article 35, which is contained in Chapter X, only to IPs we consider that this would be reflected in wording of Article 2.

²⁰ However, one proposal (UNC0621E) advocates a 3-year transition period for exit points, whereas one proposal (UNC0621B) proposes no transition period.

²¹ Except UNC621E with 3-year period for exit capacity.

Approximation of forecasted contracted capacity

Capacity prices for all users of the NTS are derived based on the RPM (currently a different RPM than that proposed by the UNC621 modifications). One of the key inputs to the RPM is capacity, more specifically, a value(s) of FCC. The majority of UNC621 modifications advocate using “obligated capacity” (or “baseline capacity”) as a proxy for FCC during the transition period.²² The obligated capacity value is a minimum amount of capacity NGGT must make available at a specific point on the network. All entry/exit points on the NTS have an obligated capacity value attached to them.²³ Capacity amounts can be re-allocated where possible across entry/exit points, but in general, the values have remained broadly constant since 2008. Following the transition period, the majority of the UNC621 modifications propose that the FCC for entry and exit points shall be equal to a forecast value determined by NGGT, based on capacity bookings observed during the transition period.

Obligated capacity values do not typically represent current or expected future utilisation of the network since, in most cases, obligated capacity values significantly exceed likely capacity bookings and actual flows. For this reason we consider obligated capacity to be a poor proxy for FCC. While we recognise the difficulties in developing a methodology for FCC, we consider that obligated capacity does not amount to a “forecast” for the purposes of TAR NC. The use of an “inflated” FCC value has a material impact on the capacity prices determined via the RPM, with the key outcome being a significant under-recovery of NGGT’s allowed revenue from such charges. The under recovery would be corrected by the use of a Complementary Revenue Recovery Charge (“**CRRC**”) (discussed further below).

Insofar as the UNC621 modifications propose to use “obligated capacity” in lieu of a forecast, we conclude the modifications are not compliant with TAR NC. Our conclusion is supported by the revenue reconciliation principle set out in TAR NC, that under- or over-recovery of the transmission services revenue should be minimised to the extent possible. We also note that the shift from the transition period to the enduring arrangements could result in a significant increase in the capacity price from gas year October 2020/21 to 2021/22.²⁴ This could be inconsistent with the revenue reconciliation principles established by TAR NC, that “significant differences between the levels of transmission tariffs applicable for two consecutive tariff periods shall be avoided to the extent possible” after TAR NC is implemented.

Use of a commodity-based Complementary Revenue Recovery Charge

We expect that the use of obligated capacity as a proxy for FCC would result in an under-recovery of transmission services revenue by NGGT. For the majority of the UNC621 modifications, to recoup this under-recovery NGGT would rely on a commodity-based CRRC for the duration of the transition period.²⁵ Analysis indicates that the use of obligated capacity during the transition period would lead to, on average, more than 50% of transmission services revenue being recovered by this charge. We consider that this use of a commodity-based charge to recover most of the transmission services revenue is

²² UNC621B proposed no transition period but it advocates using obligated capacity as an enduring solution.

²³ The levels of ‘obligated capacity’ (or ‘baseline capacity’) at each entry and exit point are specified in Special Condition 5F Table 4B for Entry Points, and Special Condition 5G Table 8 for Exit Points of NGGT’s gas transporter licence.

²⁴ Or 2022/2023 for UNC621E.

²⁵ UNC621B proposes these arrangements for enduring period.

inconsistent with the intention of Article 4(3) TAR NC, which provides “*as an exception*” that a “part” of the revenue may be recovered via a commodity-based charge.

Moreover, for the commodity-based CRRC to be compliant with TAR NC, it needs to comply with the conditions set out in Article 4(3)(b). This provision requires (among other things) that the CRRC is calculated on the basis of forecasted or historical capacity allocations and flows, or both. The obligated capacity proxy does not amount to either and is therefore not compliant with TAR NC.

Requirement for a methodology for determining FCC post-transition

The majority of UNC621 modifications state that following a proposed transition period, NGGT would estimate the amount of NTS capacity that would be allocated (pursuant to all applicable auctions or allocation processes) to users and determine values for FCC accordingly.²⁶ The UNC621 modifications anticipate that NGGT would develop the methodology in consultation with users. Whilst the proposed legal text makes provision within the UNC for the new methodology to be developed (ie it is not contingent on a follow up modification proposal), the methodology is yet to be developed. It is also not clear within which code or other document this methodology would sit or what would happen should users not agree with it. We are concerned with the undefined nature of the solution and governance of the process. We note that the legal text states that for each transition year the FCC would be set at the obligated level of capacity. NGGT is then required to have developed and published the enduring arrangements by 1 February 2021.²⁷ However, if an enduring arrangement is not developed and published by then there would be no defined FCC and a consequential gap in the methodology.

NTS Optional Charge (NOC)

The NOC as proposed is levied on relevant shippers for the transmission of gas from a specific entry point to a specific exit point. Article 4(1) of TAR NC sets out the defining characteristics of a “transmission service” and the criteria that must be met.²⁸ When comparing the proposed NOC against that definition, we consider the NOC is levied for the provision of a transmission service. The compliance of tariffs for transmission services must then be assessed against the remainder of Article 4.

Article 4(2) states that “Transmission tariffs may be set in a manner as to take into account the conditions for firm capacity products”.²⁹ We do not consider that article 4(2) can be invoked as a legal basis to justify the NOC, not least because Article 4(2) does not derogate from the requirements of Article 4(3). We note that the NOC, in the majority of modifications,³⁰ is levied on flows, without reference to the underlying capacity booking, and in all cases, the NOC is available to both firm and interruptible products.

²⁶ UNC621B proposes to use obligated levels for the FCC as an enduring arrangement.

²⁷ Note that UNC621B proposes to use the obligated levels for the FCC as an enduring arrangement. Furthermore, under UNC621E, NGGT will have to develop and publish the enduring arrangements for exit by 1 February 2022.

²⁸ Article 3(12) of TAR NC defines transmission services as ‘the regulated services that are provided by the transmission system operator within the entry-exit system for the purpose of transmission’. A service will be considered a “transmission service” where both of the following criteria are met: (i) the costs of such service are caused by the cost drivers of both technical or forecasted contracted capacity and distance; and (ii) 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.

²⁹ The term “firm capacity” is defined in Article 2(16) of Regulation (EC) No 715/2009 as “gas transmission capacity contractually guaranteed as uninterruptible by the transmission system operator”.

³⁰ With the exception of UNC621C which proposes a capacity based NOC at non-IPs, and UNC621D which does not propose a NOC.

Article 4(3) of TAR NC establishes the rule that the transmission services revenue shall be recovered via capacity-based transmission tariffs. UNC621 and most of its alternatives propose variants of a capacity-based NOC at IPs and a commodity-based NOC at non-IPs. Therefore, we have distinguished between IP and non-IPs for the purposes of the legal assessment.

NOC at non-IPs

For the majority of proposals, the NOC at non-IPs is a commodity-based transmission tariff. As an exception to the rule that the transmission services revenue shall be recovered via capacity-based transmission tariffs, commodity-based tariffs may be allowed, subject to the approval of Ofgem and the requirements set out in Article 4(3)(a) and 4(3)(b).³¹ The NOC cannot be justified pursuant to the first exception (Article 4(3)(a)) because the criteria set out in that provision are not satisfied. For example, TAR NC requires any exempt flow-based charge to be 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.³² We note that the NOC is not available at all entry and exit points. Furthermore, the NOC unit rate is derived taking into account the “maximum offtake rate” (“M”) and distance. We do not consider “M” is a suitable proxy for “forecasted” or “historical” capacity allocations and flows given maximum available capacity in most cases far exceeds historical or forecasted flows due to a large amount of spare capacity on the NTS.³³

Similarly, the NOC cannot be justified pursuant to the second exception (Article 4(3)(b)). For example, this exception requires any commodity-based CRRC to be levied for the purpose of managing revenue under- and over-recovery.³⁴ We note that the NOC is based on the hypothetical cost of investment in a by-pass pipeline. Hence it cannot be considered a tariff determined to meet an allowed revenue target. Furthermore, it does not appear that it can be the vehicle for a negative charge in the event that there is over-recovery of transmission services revenue. The fact that the NOC is proposed to be an alternative to charges which are revenue recovery charges does not affect that conclusion.

TAR NC requires Ofgem to assess the cost-reflectivity of the NOC and its impact on cross-subsidisation between IPs and non-IPs.³⁵ The NOC is intended to be broadly³⁶ reflective of the estimated cost of laying and operating a dedicated pipeline of NTS specification. However, the service received in receipt of the NOC is the standard transmission service. As such, the NOC does not reflect the costs of the service actually provided – those costs incurred by NGGT in making the NTS available. While this may be better managed by the version of the NOC proposed by UNC621C (a capacity-based NOC that is calculated as a discount on the reference price), it is not apparent that such a discount could be reconciled with the TAR NC.³⁷

³¹ The two exceptions include either a “flow-based charge” which may be established to cover costs that are mainly driven by the volume actually flowed - Article 4(3)(a); or a “complementary revenue recovery charge” to manage revenue under- and over-recovery - Article 4(3)(b).

³² Article 4(3)(a)(ii) of TAR NC.

³³ We note that “M” is more similar to “technical capacity” rather than “forecasted contracted capacity”. The two appear to be distinct concepts under TAR NC, as evidenced by Article 5(1)(a) which refers to the two as separate cost drivers.

³⁴ Article 4(3)(b)(i) of TAR NC.

³⁵ Article 4(3)(b)(iv) of TAR NC.

³⁶ We note deficiencies in the cost-reflectivity of the charge related to load factor assumptions and use of hypothetical straight-line distances that are unlikely to reflect actual pipeline routes.

³⁷ TAR NC sets out specific cases where discounts to the capacity price may be applied.

We recognise that the proposed distance cap of 60 kilometres would reduce the number of routes where the NOC may be used. However, the rationale for the choice of distance cap was based on uptake of the existing Optional Commodity Charge. We are concerned that this does not take account of the real risk of bypass and would enable the NOC to result in favourable tariffs and a cross-subsidy to users who do not represent a real risk of bypassing the NTS.

With respect to cross-subsidisation between IPs and non-IPs, we note that the NOC is also available to IPs, albeit in capacity-based form. Therefore, we do not consider that there is a cross-subsidy between IPs and non-IPs in this respect. However, we remain concerned with the risk of cross-subsidy between those who can access the NOC compared to those who cannot.

In conclusion, the proposed commodity-based NOC at non-IP points does not fall within either of the exceptions under Article 4(3) and is therefore not compliant with the TAR NC.³⁸

NOC at IPs

The UNC621 modifications (with the exception of UNC621D) convert the NOC into a capacity-based charge at IPs and hence to that extent complies with the requirement of Article 4(3) TAR NC to levy tariffs for transmission services on a capacity basis. However, our concerns regarding cost-reflectivity and cross-subsidisation remain.

Decision notice

In accordance with Standard Special Condition A11 of the Gas Transporters Licence, the Authority has decided that modification proposal UNC621 and its alternatives: 'Amendments to Gas Transmission Charging Regime (UNC621)' should not be made.

Frances Warburton
Director, Systems and Networks

Signed on behalf of the Authority and authorised for that purpose

³⁸ We note that UNC0621C proposes enduring 'NOC' arrangements. These are in the form of a discount to the capacity charge for IPs and payment of the NOC instead of the General Non-Transmission Services Revenue Recovery Charge. While the issues around commodity-based tariffs identified above would obviously not apply, our concerns regarding cost-reflectivity are relevant to that modification proposal as well. We are also concerned that the availability of NOC entails a cross-subsidy from those who cannot access it under UNC0621C to those who can.

Annex 1 - Summary of the UNC621 Modifications *

Component	Element	COUNTERFACTUAL	0621	0621A	0621B	0621C	0621D	0621E	0621F	0621H	0621J	0621K	0621L	
		v1.0	v5.0 (1/5/2018)	v4.0 (20/4/2018)	v5.0 (4/5/2018)	v5.0 (3/5/2018)	v4.0 (27/4/2018)	v3.0 (2/5/2018)	v4.0 (13/4/2018)	v3.0 (3/5/2018)	v3.0 (4/5/2018)	v2.0 (26/4/2018)	v2.0 (4/5/2018)	
Transmission Services Charges	Reference Price Methodology (interim)	N/A	National Grid	Storngy	SSE	Centrica	Wales and West Utilities	Uniper	IUK	ENI	RWE	Gateway LNG	Shell	
	Reference Price Methodology (enduring)	Capacity Weighted Distance	Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Capacity Weighted Distance with flow based recovery	Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Capacity Weighted Distance (distance subject to square root) 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	Capacity Weighted Distance with adjustment to minimise Revenue Recovery	Capacity Weighted Distance	
	Target Revenue	Gross Revenue (inclusive of existing and interim contracts)	Net of existing and interim contracts	Net of existing and interim contracts	Net of existing and interim contracts	Net of existing and interim contracts	Net of existing and interim contracts	Net of existing and interim contracts	Net of existing and interim contracts	Net of existing and interim contracts	Net of existing and interim contracts	Net of existing and interim contracts	Gross Revenue (inclusive of existing and interim contracts)	
	Treatment of zero Reference Prices	None. Zero permitted, no treatment prescribed.	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 square root of 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 Weighted Average Distance to determine price using nearest non-zero Reference Priced Entry or Exit Point's WAD.	Use postage stamp price 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.
	Interim arrangements	Obligated capacity for first 2 years	Obligated capacity for first 2 years	Obligated capacity for first 2 years	None	Obligated capacity for first 2 years	Obligated capacity for first 2 years	Obligated capacity for first 2 years at Entry and first 3 years at Exit	Obligated capacity for first 2 years	Obligated capacity for first 2 years	Obligated capacity for first 2 years	Obligated capacity for first 2 years	Obligated capacity for first 2 years	Obligated capacity for first 2 years
	Enduring arrangements	National Grid Forecast (including Historical Capacity)	National Grid Forecast (excluding Historical Capacity)	National Grid Forecast (excluding Historical Capacity)	Obligated capacity	National Grid Forecast (excluding Historical Capacity)	National Grid Forecast (excluding Historical Capacity)	National Grid Forecast (excluding Historical Capacity)	National Grid Forecast (excluding Historical Capacity)	National Grid Forecast (excluding Historical Capacity)	National Grid Forecast (excluding Historical Capacity)	National Grid Forecast (excluding Historical Capacity)	National Grid Forecast (excluding Historical Capacity)	National Grid Forecast (including Historical Capacity)
	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 for year 1	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 for year 1	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 for year 1	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 for year 1	1.0	1.0	1.0
		Multipliers from year 2 onwards	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)	0%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
		Interruptible / Off-peak adjustment (exit)	0%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
		Interruptible /off-peak adjustments from Year 2 onwards	0%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
	Reserve Price - Specific Capacity Discounts	Fixed or floating price	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating	Floating
Storage		50%	50%	86%	86%	86%	86%	50%	50%	50%	86%	86%	50%	
Interconnection Points		None	None	None	None	None	None	None	None	None	None	None	None	
LNG		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Revenue Recovery Charges (Interim)	Minimum Reserve Price	No minimum applies	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	0.0001p/kWh/d except at Storage Exit (where no minimum applies)	0.0001p/kWh/d	
	Target revenue apportionment	None	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	
	Duration	None	2 years	2 years	2 years	2 years	2 years	2 years at Entry and 3 years at Exit	2 years	2 years	2 years	2 years	2 years	
	IP application	None	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 at exit and Non-Existing contracts at Entry. Flow based charge for Existing Contracts (such contracts utilised before Non-Existing)	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)
	IP Exclusions	None	None	None	None	None	None	None	None	None	Historical Contracts	None	None	
	Non-IP application	None	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)	Flow based charge applied to allocations (flow)
	Non-IP Exclusions	None	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points	Non-own use gas allocations (flow) at Storage Connection Points
Revenue Recovery Charges (Enduring)	Target revenue apportionment between IPs and non-IPs	None	n/a	n/a	Pro-rated according to forecast flows at IPs / non-IPs versus forecast total flows	For entry at IPs pro rated according to forecast flows against Historical / Non Historical Contracts versus forecast total IP flow	n/a	For entry at non-IPs pro rated according to forecast flows against Historical / Non Historical Contracts versus forecast total non IP flow	n/a	n/a	n/a	n/a	n/a	
	IP application	None	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Capacity charge at exit and Non-Historical contracts at Entry. Flow based charge for Existing Contracts (such contracts utilised before Non-Existing)	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)	
	IP Exclusions	None	None	None	None	None	None	None	None	Historical Contracts	None	None	None	
	Non-IP application	None	Capacity charge (applied to fully adjusted capacity)	Capacity charge (applied to fully adjusted capacity)	Flow based charge applied to allocations (flow)	Capacity charge (applied to fully adjusted capacity) except for Historical Contracts which will accrue a commodity charge	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)	
	Non-IP Exclusions	None	Historical Contracts for Capacity at Storage Connection Points	Fully adjusted Capacity at Storage Connection Points not booked for own use purposes	Non-own use gas allocations at Storage Connection Points	Storage Connection Points	Historical Contracts for Capacity at Storage Connection Points	Fully adjusted Capacity at Storage Connection Points not booked for own use purposes	Historical Contracts for Capacity at Storage Connection Points	Historical Contracts	Historical Contracts for Capacity at Storage Connection Points	Fully adjusted Capacity at Storage Connection Points not booked for own use purposes	Historical Contracts for Capacity at Storage Connection Points	
NTS Optional Charge	Application	None	2 years	2 years	Enduring	Enduring from October 2019	None	2 years	2 years	2 years	2 years	2 years	2 years	
	Method (rate derivation)	None	Existing formula, cost base subject to annual RPI adjustment	Existing formula, cost base subject to annual RPI adjustment	Existing formula, cost base subject to annual RPI adjustment	Discount of CWD derived Reference Price with Revenue Rebalance Adjustment	Not applicable	Existing formula, cost base subject to annual RPI adjustment	Existing formula, cost base subject to annual RPI adjustment	Existing formula, cost base subject to annual RPI adjustment	Existing formula, cost base subject to annual RPI adjustment	Existing formula, cost base subject to annual RPI adjustment	Existing formula, cost base subject to annual RPI adjustment	
	Quantity (IPs)	None	Capacity deemed to have been used	Capacity deemed to have been used	Capacity deemed to have been used	Lesser of capacity and allocation (flow) at entry point and exit point	Not applicable	Capacity deemed to have been used	Capacity deemed to have been used	Capacity deemed to have been used	Capacity deemed to have been used	Capacity deemed to have been used	Capacity deemed to have been used	
	Quantity (Non-IPs)	None	Allocation (flow)	Allocation (flow)	Allocation (flow)	Lesser of capacity and allocation (flow) at entry point and exit point	Not applicable	Allocation (flow)	Allocation (flow)	Allocation (flow)	Allocation (flow)	Allocation (flow)	Allocation (flow)	
	Alternative charges	None	Transmission Services Revenue Recovery charges and Non-Transmission Services (entry and exit) charges	Transmission Services Revenue Recovery charges and Non-Transmission Services (entry and exit) charges	Transmission Services Revenue Recovery charges and Non-Transmission Services (entry and exit) charges	Transmission Services Revenue Recovery charges and Non-Transmission Services (entry and exit) charges	Non Transmission Services Charges (Entry and Exit)	Not applicable	Transmission Services Revenue Recovery charges and Non-Transmission Services (entry and exit) charges	Transmission Services Revenue Recovery charges and Non-Transmission Services (entry and exit) charges	Transmission Services Revenue Recovery charges and Non-Transmission Services (Entry and Exit)	Transmission Services Revenue Recovery charges and Non-Transmission Services (entry and exit) charges	Transmission Services Revenue Recovery charges and Non-Transmission Services (entry and exit) charges	
	Limitations	None	60km distance cap	60km distance cap	60km distance cap	60km distance cap	Not available for Storage Connection Points, minimum distance 0.1km	Not applicable	60km distance cap	60km distance cap	60km distance cap	60km distance cap	60km distance cap	
	Application at Bacton ASEPs	None	NTS optional flow at UKCS and IP pro rata in proportion to total flows at both	NTS optional flow at UKCS and IP pro rata in proportion to total flows at both	NTS optional flow at UKCS and IP pro rata in proportion to total flows at both	NTS optional flow at UKCS and IP pro rata in proportion to total flows at both	NTS optional flow at UKCS and IP pro rata in proportion to total flows at both	Not applicable	NTS optional flow at UKCS and IP pro rata in proportion to total flows at both	NTS optional flow at UKCS and IP pro rata in proportion to total flows at both	NTS optional flow at UKCS and IP pro rata in proportion to total flows at both	NTS optional flow at UKCS and IP pro rata in proportion to total flows at both	NTS optional flow at UKCS and IP pro rata in proportion to total flows at both	
	IP application	Existing principles	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	
	IP application	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	Existing principles	
	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	
	LNG 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	
Publication of variables	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	
	CWD 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	
	Maximum allowed revenue forecast	No proposed obligations	No proposed obligations	No proposed obligations	No proposed obligations	No proposed obligations	Publish Mar, Jul, Oct and Dec	No proposed obligations	No proposed obligations	No proposed obligations	No proposed obligations	No proposed obligations	No proposed obligations	

Variation in treatment of element from UNC Modification Proposal 0621

* This table was prepared by the Joint Office of Gas Transporters

Annex 2: Our current views on the key features of the UNC621 modifications

This Annex provides our current views on the key features of the UNC621 modifications and an assessment of these features. These current views do not fetter our discretion in making decisions on any future modification proposals, as our views may change to reflect future developments.

We recently published our minded to decision and draft impact assessment on our electricity Targeted Charging Review (“TCR”).³⁹ Our views below take into account the minded to position set out in that document. We note that the minded to decision is subject to consultation and change, and we will keep in mind how the approach to charging in electricity develops when considering future modification proposals related to gas charging, while noting that differences in the gas and electricity systems may mean differences in outcomes. We note the urgency of ensuring compliance of the gas charging regime with legislation; while we will be seeking consistency with the electricity charging approach where appropriate, we do not think it is necessary to wait for the resolution of issues currently being considered in electricity network charging to implement changes to the gas transmission charging regime.

Cost-reflectivity (Reference Price Methodology)

In general, network charges are often considered to have two fundamental objectives: i) “forward-looking” network charges that are designed to send charging signals to network users that reflect the likely future cost and benefit of their usage of the network,⁴⁰ and ii) revenue recovery charges that recover the remaining allowed revenues.⁴¹ Long-Run Marginal Cost (“LRMC”) models are often used to determine the forward-looking charges. Forward looking charges are usually derived taking account of how users’ actions can either increase or decrease future network costs (eg network investment or operational costs) with a view to deliver cost reflective charges. Therefore, we consider that cost-reflectivity is more relevant to forward-looking charges than revenue recovery charges. In our work on the TCR, we have indicated that the following principles are relevant for assessing revenue recovery charges: i) reducing harmful distortions, ii) fairness to end consumers and iii) proportionality and practical considerations. In making a decision on gas network charges, we will keep these principles in mind, taking account of differences in gas and electricity charging and systems.

The primary determinant of the level of gas transmission charges for different users is the choice of RPM (which sets the reference price) and any complementary revenue recovery charge. Under the current gas transmission charging arrangements, an LRMC-based RPM is used to derive capacity prices and then a TO commodity (flow-based) charge recovers the remaining allowed transmission services revenue. There are also distinct forward-looking and revenue recovery charges for electricity networks. By contrast, the majority of the UNC621 modifications propose using an RPM that sets the reference price such that it is the primary mechanism to recover all allowed revenues in the enduring period. This has the effect of combining both revenue recovery charges and forward-looking signals into a single capacity-based charge.⁴² Given low levels of

³⁹ <https://www.ofgem.gov.uk/publications-and-updates/targeted-charging-review-minded-decision-and-draft-impact-assessment>.

⁴⁰ Sometimes based on Long Run Marginal Cost (LRMC) models.

⁴¹ These are referred to as cost recovery or residual charges in electricity.

⁴² Most of the UNC621 modifications also propose a capacity-based revenue recovery charge, if required, to reconcile actual and allowed revenues where they differ during the year.

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.

The RPM used in the current charging methodology sets capacity prices using an LRMC methodology. The UNC621 Working Group stated that the current methodology causes capacity prices to be volatile and unpredictable, which can, in their view, drive up costs for consumers. Furthermore, the LRMC methodology generates forward-looking charges that are insufficient to recover NGGT's allowed revenues, and significant additional revenue recovery charges are required. These revenue recovery charges are based on gas flows and hence currently levied only on those who flow gas on the transmission system. The availability of very inexpensive/free capacity means that those parties who book this short-term capacity but do not flow against those bookings benefit equally from access to the transmission system but contribute significantly less to revenue recovery.

We note that the NTS is a meshed network, with over 20 entry points located across the country. This offers considerable optionality and geographic diversity in supply, and commensurate security of supply benefits. Only a limited proportion of the costs of a meshed network are directly attributable to particular points, and therefore a substantial proportion of NGGT's revenue requirement cannot be unambiguously attributed to individual entry and exit points.

The UNC621 modifications developed three RPM options for determining the reference price: Capacity Weighted Distance ("**CWD**"); CWD-Square Root (uses CWD approach with the square root of distance, "**CWD-SR**"), and; Postage Stamp ("**PS**") based on capacity at each entry and exit point only. All three RPM options propose a 'top-down' approach to setting the reference price such that NGGT's total allowed revenue is distributed across all entry and exit points based on the specific cost drivers of the chosen RPM – either capacity, or capacity and distance.⁴³ 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.

In terms of different approaches to the allocation of revenues, distance-based allocation of revenue recovery charges (ie CWD methodology and variants on CWD) would attribute a greater proportion of network costs to points on the network associated with longer average distances to other points on the network. Our current view is that there are several potential weaknesses with using distance as a factor for setting the reference price:

- Setting higher charges to those bringing gas onto and taking gas off the system at points which are located further away would increase incentives on those users to reduce their usage of the network, for which there are unlikely to be any short to medium term associated cost savings.
- The distances used in the CWD methodologies are typically averaged across all points for the purposes of setting prices, and the actual costs of a particular entry

⁴³ This is in contrast to an LRMC based approach which is bottom up, seeking to recover forward looking costs, but requiring an additional revenue recovery charge to ensure target revenues are met. Under the UNC621 modifications, the price paid for capacity bought in previous years would also 'float' up (or down) in the year the capacity is used to adjust to the allowed revenue amount.

point to a particular exit point might not be “real” (ie such physical flows may never occur). Shippers book entry and exit capacity independently and nominate flows without specifying specific routes and therefore it is very difficult to allocate flows to specific assets. This type of treatment of distance is therefore unlikely to generate prices that are accurately cost-reflective of the physical transportation routes actually used. Although as we consider the charges resulting from the RPMs to be largely functioning as revenue recovery charges, cost-reflectivity is less relevant in any case.

- Using distance in setting transmission entry and exit charges would mean those consumers who are located in more remote locations would pay higher transmission charges for entry and exit (other things being equal). This may not be considered a fair outcome as those consumers are not driving significant additional costs from their use of a shared network that is already built and that has spare capacity available.

We note that variation between capacity charges across entry and exit points in GB would fall significantly under all RPMs proposed compared to the status quo (although the level of the capacity charge would increase as it would be set to fully recover NGGT’s allowed revenue). Incentives for a party to choose a particular location to benefit from lower transmission charges are likely to be lower under all proposals compared to the status quo, but higher under the CWD options compared to the PS option, which has no locational incentives.

Network efficiency (Multipliers)

The UNC621 modifications propose removing existing discounts for capacity purchased at shorter notice (ie setting multipliers at ‘1.0’ for all capacity, whether purchased in annual, daily, or other time tranches).

The Working Group noted that the choice to price all capacity products at parity was made on the basis that there was no need to incentivise booking of one capacity product over another. NGGT also considered this would not influence users’ capacity procurement strategies. A methodology that prices all firm capacity at parity, while at the same time increasing users’ capacity charges, would likely promote a ‘pay as you go’ system (ie short-term capacity bookings) such that users avoid overbooking and having to pay for capacity they do not require. We consider reducing existing incentives to overbook capacity, and encouraging users to book capacity in amounts closer to their expected flows would provide more accurate signals to NGGT. However, as this approach would likely result in a continued preference towards short-term capacity bookings it may not promote useful capacity booking signals for planning and maintaining the network in the long-term.

The current system of ‘multipliers’ (ie discounts) and the availability of zero priced capacity means some users are able to book the option to flow, but avoid contributing to the recovery of network costs if they choose not to flow. It also means those booking long-term capacity pay a greater proportion of network costs. Removal of these temporal capacity discounts would mean network users would not be able to avoid contributing to revenue recovery if they choose to book short-term capacity and then not use it, removing preferential network access for those booking short-term capacity at a zero price.

Competition

In this section we consider the potential impact of the UNC621 modifications on competition.

Treatment of "Historical Contracts"

The UNC621 modifications propose that those holding the so-called "historical" entry capacity bookings (comprising "existing" and "interim" contracts) retain fixed priced capacity for the duration of those bookings with no further capacity charges levied on these bookings. Under the current arrangements, such bookings would be subject to additional and variable commodity charges levied on flows, and a large proportion of revenues are recovered in this way. During the proposed transition period, historical contract holders may still pay a commodity-based top up charge.⁴⁴ However, in most cases, the commodity charge would no longer exist after October 2021 and, without changes, historical contract holders would pay only their fixed capacity charge.

Historical capacity bookings would then be cheaper relative to the expected cost of new capacity bookings. This results in an implicit discount to "historical" capacity holders.⁴⁵ We estimate the materiality of this discount would be significant: in the first year of the proposed enduring period (2021/22), new capacity holders would pay a capacity price between seven and twelve times more than historical contract holders. This would put new capacity bookings and flows at a significant competitive disadvantage compared to historical capacity bookings.

We also think the impact of historical contracts on competition would be further exacerbated by i) the proposed treatment of the volumes and revenues associated with historical capacity within each of the RPMs; and ii) by so-called "interim contracts". With the exception of UNC621L, all modifications propose to 'net off' the revenue and volumes associated with historical contracts in the calculation of the reference price to be levied on all new capacity users. This would have the effect of further increasing the price differential between historical and new capacity bookings, thus increasing the distortion of competition. While this is a temporary effect, in that it would only last for the duration of the historical bookings, we note that some historical bookings extend well into the period of the proposed enduring regime (to 2030). Interim contracts would also increase the volumes and revenues associated with historical capacity bookings and thereby exacerbate this impact.

Predictability and stability of charges

The UNC621 Working Group considered that the proposed RPMs would reduce the volatility of charges and improve transparency of the charging methodology compared to the status quo. More transparent charges are likely to have a positive impact on ensuring effective competition since shippers and suppliers would have greater understanding of how their (and others') decisions are likely to impact their charges. However, several shippers expressed concerns that the stability and transparency of the proposed arrangements may be undermined by the lack of clarity on the methodology for determining the FCC value in the enduring period and the accuracy of any forecast(s) of

⁴⁴ In the case where FCC equals obligated capacity.

⁴⁵ To put this effect into context, modelling for 2021/22 shows that after revenue from historical entry capacity contracts is taken into account, nearly 90% of the remaining revenue on entry is recovered from non-historical entry capacity bookings.

capacity made by NGGT. We recognise these concerns and consider that transparency and clarity of the arrangements for network users will be an important factor in considering any future modification proposals. In that context we note that the PS approach would only require two aggregated FCC (entry and exit) values and so avoids the necessity for individual entry and exit point forecasts. This may simplify forecasting FCC values. Overall the PS approach would be expected to reduce the volatility of capacity prices and make charge setting more stable and predictable for shippers.

The NTS Optional Charge

The UNC621 modifications propose either updating the existing Optional Commodity Charge (“**OCC**”) formula, revising the format of the charge (eg to become a discount to the capacity price, UNC621C), or removing it altogether (UNC621D). We consider the existing OCC, and proposed NOC, provide a cross-subsidy between those who can, and those who cannot, utilise the charge. The proposed updates to the NOC formula parameters (all proposals except UNC621C and UNC621D) or revising the format of the NOC as proposed by UNC621C would reduce the level of cross-subsidy created by the NOC, and therefore have a positive impact on effective competition relative to the status quo. However, in our view, there is insufficient evidence that parties would by-pass the NTS in the absence of the NOC and we consider that the NOC in the form proposed in the UNC621 modifications would still have a negative impact on competition. In the event there is a genuine risk of construction or use of a competing pipeline that could increase the level of charges for remaining consumers, then the development of any charges to account for that would need to ensure that they comply with relevant legislation.

Capacity-based versus Commodity-based charges

Several parties raised concerns through the UNC621 process that shifting a large proportion of revenue recovery from commodity-based to capacity-based gas network charges may impact their ability to pass through their costs, potentially impacting competition between users. Some parties also expressed concerns that capacity-based charges may make it more difficult for shippers to pass on entry charges directly into wholesale gas prices. We are not convinced that this would be the outcome since, given the likely incentives to continue to book capacity on a short-term basis, we expect that market participants would be able to shape their capacity bookings to reflect their expected commodity flows (ie via short-term capacity bookings). This would likely result in less difference between capacity- and commodity-based charges for the purposes of recovering entry charges via wholesale prices paid by suppliers, and recovered from consumers.

We note that we are in the process of reviewing how revenue recovery charges on electricity networks should be set through our TCR, including whether residual charges should be levied on generators (entry). While we consider this approach to assessing revenue recovery charges is also broadly relevant for gas, we note there are differences between gas and electricity which may drive different solutions for the two sectors. For example, there are certain restrictions and practical considerations applicable to assessing how charges should be set in the electricity sector which may reduce the appropriateness of levying revenue recovery charges on electricity generators.

Specific Capacity Discounts

The UNC621 modifications propose discounts of either 50% or 86% for capacity charges at entry from, and exit to, storage facilities.⁴⁶ UNC621F proposes an equivalent discount for bi-directional interconnectors.

We note that shippers using storage facilities are subject to initial entry charges (on entry to the NTS system) and final exit charges (on exit from the system) and hence contribute to the allowed revenues in the same manner as shippers not using storage facilities. In addition, shippers using storage facilities are currently subject to capacity (forward-looking) charges for injecting gas into storage facilities and for bringing the gas back onto the system, but are currently exempt from commodity (revenue recovery) charges.

Hence shippers using storage facilities currently pay very low gas transmission tariffs due to the fact that they are exempt from commodity charges and many of these shippers buy heavily discounted short-term and interruptible NTS capacity. The increase in the commodity-based revenue recovery charge in recent years has meant that the discount to shippers using storage facilities as a result of avoiding the commodity charge has grown considerably.

Our assessment of the UNC621 modifications found that in all cases, transmission charges for shippers using storage facilities would increase due to the proposed changes. The expected result of this would be that net revenues for storage facilities would likely decrease between 3% and 31% under a wide range of scenarios, and depending on whether the storage discount is set at 50% or 86%. Nonetheless, we note that our assessment also found that the net revenues of gas storage facilities were more responsive to variations between different modelled market scenarios than to changes in the charging methodology.

We think that a 50% discount on transmission tariffs for shippers entering gas from, and exiting gas to, storage facilities can be justified on the basis that, in its absence, these flows would make a contribution to revenue recovery twice. Any discount above 50% would need a clear justification. We note that the UNC621 modifications could significantly impact the profitability of storage facilities. Our assessment of the modification proposals found that if operating costs are sufficiently low, storage facilities may be profitable in the short-term but revenues may not be sufficiently high to justify any significant further investment, including refurbishment costs. Therefore, under a number of the UNC621 modifications (ie those which propose a storage discount less than 86%), some storage facilities may encounter challenges in continuing operations in the medium to longer-run.

We note here that we do not currently consider there is sufficient rationale for a bi-directional interconnector discount. It is our view that, while bi-directional interconnectors do compete with storage facilities for flexible supply (and demand) in GB, the use of bi-directional interconnectors is not the same as storage facilities. While it could be argued that bi-directional interconnectors function in a similar manner to storage facilities, gas imported on bi-directional interconnectors onto the NTS is unlikely to be the same gas that was exported from the NTS along bi-directional interconnectors.

⁴⁶ UNC621K proposes, in addition to an 86% firm capacity discount, a 100% discount for interruptible exit capacity to storage facilities.

Impacts on investment and closure decisions

Some of the UNC621 Working Group expressed concerns that proposed changes to gas transmission tariffs could deter investment in, or cause premature closure of, (for example) power stations. We estimate that over 75% of transmission-connected power stations would face a decrease in tariffs compared to the status quo, (of up to £1/MWh of electricity⁴⁷). Furthermore, the majority of transmission-connected power stations where there is an increase in charges see an increase of less than £0.5/MWh of electricity.⁴⁸ Overall, we consider that potential changes in gas transmission tariffs are likely to have a limited impact on the gross profits of a mid-merit CCGT.

Protection of current and future consumers

We have also considered the likely implications of changes to the charging methodology as envisaged by UNC621 and its alternate modification proposals for current and future GB consumers.

The UNC621 modifications would redistribute largely fixed allowed revenues among users. In general, the redistribution is likely to result in small bill impacts for the majority of users. For example, the proposed changes resulting from the three different RPMs would marginally increase the typical domestic consumer bill (when we consider changes to the NTS exit charges only⁴⁹): by between approximately 61p and 88p per year. At a regional level, consumers in Scotland would see the highest average increase in gas bills, approximately £3.75 per year (equivalent to a 0.3% increase in an average dual fuel bill).⁵⁰ By comparison, the South-West and Wales region sees the most significant decrease in domestic consumer gas bills with an average reduction of £1.90 per year (0.2% fall in an average dual fuel bill).

The impacts of the modification proposals for gas distribution network-connected Industrial and Commercial ("**I&C**") customers and power stations has a similar pattern across the regions. The impact of moving from the status quo to the proposed RPMs for I&C customers that are directly connected to the NTS is to reduce their average annual bills. These reductions are estimated to be between £115 and £134 per year. Overall, none of the modelled options showed a significant improvement or deterioration in consumer welfare relative to the status quo under all sensitivities tested.

Next Steps

We expect industry to take into account our current views in developing a modification proposal that is compliant with relevant legislation and better facilitates the relevant UNC code objectives.

⁴⁷ This looks at how the changes in gas tariffs affect the cost of electricity produced at a power station when considering the efficiency of conversion of gas to electricity. This is so that we can make comparisons to the clean spark spread and electricity price.

⁴⁸ By comparison, wholesale electricity market modelling estimates the clean spark spread for a 49% gas-fired power plant at around £4.7//MWh in 2021 and £3.2/MWh in 2022 and the average price of electricity was around £44/MWh in 2017.

⁴⁹ Note that all estimates under this heading relate to analysis based on changes to exit charges only. We do not include impacts from entry charges as these would impact on the wholesale gas price which affects the unit gas price for all consumers equally.

⁵⁰ This is an increase of £3.35 for CWD, £3.73 for CWD-SR and £4.19 for postage stamp.