

Modification proposal:	Uniform Network Code (UNC) 678/A/B/C/D/E/F/G/H/I/J (Urgent) - Amendments to Gas Transmission Charging Regime		
Decision:	The Authority ¹ directs modification UNC678A be made ²		
Target audience:	UNC Panel, Parties to the UNC, and other interested parties		
Date of publication:	28 May 2020	Implementation date:	01 October 2020

Background

In 2015, we concluded our 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 Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (“**TAR NC**”). We invited National Grid Gas Transmission (“**NGGT**”) and the industry to lead this work via the UNC code modification process. After leading its own review (the Gas Charging Review, “**GCR**”) ³, the industry developed UNC621 and 10 alternative proposals (UNC621, A – L).⁴ On 20 December 2018, we concluded that none of the UNC621 modifications were compliant with TAR NC, and so could not be implemented.⁵ In our decision we said that “we expect industry to ensure Great Britain (“**GB**”) is compliant with the requirements of the TAR NC as soon as possible”.

TAR NC entered into force on 5 April 2017. Its objectives are to contribute to market integration, to enhance security of supply and to promote interconnection between gas networks. It seeks to increase the transparency of transmission tariff structures and procedures for setting them. While the TAR NC itself entered into force in April 2017, some of its provisions applied from May 2019.

The modification proposal

On 17 January 2019, NGGT raised UNC678 stating that it seeks to introduce gas transmission charging arrangements that produce stable and predictable transmission charges and ensure compliance with TAR NC.⁶ Subsequently, ten alternative proposals (UNC678/A/B/C/D/E/F/G/H/I/J) were raised.⁷

¹ References to the “Authority”, “Ofgem”, “we” and “our” are used interchangeably in this decision. 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 decision is notice of the reasons for this decision as required by section 38A of the Gas Act 1986.

³ Joint Office NTS Charging Methodology Forum (“**NTS CMF**”) Gas Charging Review.

⁴ Referred to collectively as the ‘UNC621 modifications’. UNC621G was withdrawn during the modification development process. There was no UNC621I.

⁵ Decision to reject UNC 621/A/B/C/D/E/F/G/H/J/K/L (20 December 2018):

<https://www.ofgem.gov.uk/publicationsand-updates/uniform-network-code-unc-621abcdefghijkl-amendments-gas-transmission-charging-regime>

⁶ <https://www.gasgovernance.co.uk/0678>

⁷ A comparison of the different elements of these 11 proposals is available on the website of the Joint Office of Gas Transporters: <https://www.gasgovernance.co.uk/0678/Comparison>. The proposals consist of the original Modification Proposal and 10 Alternatives. In this decision we refer to them all collectively as “proposals” or “modifications”

UNC Panel⁸ recommendation

At the UNC Panel meeting on 23 May 2019, the panel considered that no clear majority view existed on the preference of whether any one of the proposed modifications better facilitates the Relevant Objectives than the others. Therefore, the Panel recommended that none of the proposed modifications should be implemented. Chapter 2 of our UNC678/A/B/C/D/E/F/G/H/I/J Minded to Decision (“**MTD**”) sets out the key compliance areas highlighted by Panel (see §2.26).

Impact assessment and Ofgem consultation

On 23 December 2019, we published our MTD and Draft Impact Assessment in relation to UNC678/A/B/C/D/E/F/G/H/I/J.⁹ The MTD concluded that only two of the 11 modifications (UNC678 and UNC678A) are compliant with the relevant legislation; TAR NC, and Gas Regulation 715/2009 (“**Gas Regulation**”). We stated that we would not accept a non-compliant modification proposal. We did nonetheless fully apply our principles-based (including compliance) assessment and Impact Assessment across all the 11 modification proposals.¹⁰ Based on those assessments, we expressed our preference for proposal UNC678A in the MTD. We also proposed that implementation should take place on 1 October 2020 to coincide with the start of the gas year, depending on a full consideration of responses to the consultation.

We found that there was little difference between the quantitative impacts of the two compliant proposals (UNC678 and UNC678A), with both offering a similar Net Present Value (“**NPV**”) for GB gas consumers. Based on the central modelling scenario – the 2019 Future Energy Scenarios (“**FES**”) Two Degrees (“**TD**”) scenario¹¹ – our Draft Impact Assessment estimated the expected benefits to GB gas consumers from the two compliant modifications compared to the status quo at: £0.82bn under UNC678A (Postage Stamp); and £0.87bn under UNC678 (Capacity Weighted Distance), between 2022 - 2031 (NPV £bn, discounted to £18/19).¹²

These NPV figures were part of our Draft Impact Assessment published on 23 December 2019. Today, we are publishing our Final Impact Assessment as a subsidiary document to this decision. The estimated consumer benefits (NPV) have been revised and are higher than in the Draft Impact Assessment. The new results, including the results for electricity consumers to which we can have regard when making this decision, are set out in the section titled ‘Quantitative Assessment’. We also explain why the results have changed since our Draft Impact Assessment.

Our principles-based analysis concluded that the Postage Stamp (“**PS**”) methodology (UNC678A) was preferred to the Capacity Weighted Distance (“**CWD**”) methodology (UNC678). The quantitative, dynamic, and other analyses showed that there is relatively little difference in overall benefits to gas consumers between UNC678 and UNC678A. Our MTD was to approve the PS methodology proposed in UNC678A.

Finally, in our MTD (§7.21.), we noted three considerations regarding: (i) the risk of NTS bypass; (ii) storage discounts; and (iii) governance of the Forecast Contracted Capacity (“**FCC**”) methodology. We said that any future modifications on these or any other points

⁸ The UNC Panel is established and constituted from time to time pursuant to and in accordance with the UNC Modification Rules.

⁹ <https://www.ofgem.gov.uk/publications-and-updates/amendments-gas-transmission-charging-regime-minded-decision-and-draft-impact-assessment>

¹⁰ In our MTD, we noted that we had fully assessed both compliant modifications (and the non-compliant modifications) to allow us, should the consultation responses bring to light new and significant information, to make a final decision to approve a modification other than UNC678A.

¹¹ The July 2019 Future Energy Scenarios document containing the scenarios including Two Degrees is here: <http://fes.nationalgrid.com/media/1409/fes-2019.pdf>. We explain our choice of scenarios in our MTD and Final IA.

¹² The modelling was carried out by our consultants CEPA. CEPA’s modelling included estimates of impacts of the modifications on both gas and electricity consumers. The modelling, and the impacts on gas consumers, was summarised in our MTD. We published CEPA’s accompanying analytical support report on our website at the same time as our MTD.

would be assessed against the relevant UNC code objectives and for compliance with all legislation.

As regards point (i) above, we said that the construction or usage of alternative network infrastructure to the NTS which leads to higher costs overall would not represent an efficient outcome. We welcome the industry's efforts, through the NTS Charging Methodology Forum ("**NTS CMF**"), to develop options for new short-haul arrangements that could be part of a TAR NC compliant transmission charging regime. Preventing inefficient bypass of the NTS, in a targeted, proportionate and compliant manner is, in our view, desirable. Ofgem is committed to working with the industry and the Joint Office of Gas Transporters to facilitate the development and, depending on the assessment and approval process, timely consideration and where appropriate implementation of modification(s) that seeks to address inefficient bypass of the NTS.

As regards point (ii) above, we remain open to a storage discount of above 50% where this is well justified and appropriate.

Finally, regarding point (iii) above, we said that for reasons of consistent governance, the FCC methodology should be within the UNC.

Ofgem consultation

We consulted on our MTD from 23 December 2019 to 24 February 2020. This was the "final consultation" in accordance with Article 26(1) of TAR NC. As part of this consultation, we received 30 consultation responses (of which five were confidential). In addition, we received responses from the National Regulatory Authorities ("**NRA/s**") of two directly connected member states, pursuant to Article 28(1) TAR NC.¹³ We thank all respondents for their comments. The responses are considered in the 'Reasons for the Authority's decision' section. On 20 March 2020, we published the non-confidential Article 26 consultation responses and their summary, as required by Article 26(3) TAR NC.¹⁴ Today we are also publishing the Article 28(1) TAR NC consultation responses that we received from the two NRAs.

When launching the Article 26 TAR NC consultation, we forwarded the consultation documents to the Agency for the Cooperation of Energy Regulators ("**ACER**"), as required by Article 27(1) TAR NC. ACER published the conclusion of its analysis in accordance with Article 27(3) TAR NC on 24 April 2020.¹⁵ ACER concluded that our MTD contains the required information listed in Article 26(1) of TAR NC. It also concluded that the choice of the PS methodology as the proposed Reference Price Methodology ("**RPM**") is overall compliant with the requirements set out in Article 7 of TAR NC. ACER made the following recommendations:

1. Ofgem should publish in its final decision complementary information showing that non-transmission services are charged to their beneficiaries;
2. Ofgem should, jointly with the concerned NRAs, monitor the impact of the interconnectors' (i.e. Moffat, IUK and BBL) tariff arrangements to avoid unintended negative impacts on the European gas market integration;
3. Ofgem should monitor the impact of the 'dual regime' that keeps existing capacity contracts unaffected by the new RPM. If detrimental effects were to be identified, Ofgem would have to implement remedies to ensure an appropriate level of wholesale market competition.

¹³ The Netherlands Authority for Consumers and Markets (ACM) and the Commission for Regulation of Utilities (CRU) of the Republic of Ireland.

¹⁴ Article 26 consultation responses: <https://www.ofgem.gov.uk/publications-and-updates/amendments-gas-transmission-charging-regime-minded-decision-and-draft-impact-assessment>

¹⁵ ACER report on GB: https://acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/Agency%20report%20-%20analysis%20of%20the%20consultation%20document%20for%20Great%20Britain.pdf

We welcome ACER's analysis, and we have and will continue to take account of its recommendations. In the **Appendix**, we are publishing complementary information showing that non-transmission services are charged to their beneficiaries, addressing point (1) above.

We are making a decision under Article 27(4) of TAR NC¹⁶, the UNC Code Relevant Objectives and UNC Charging Methodology Objectives, as well as our statutory duties. We will send this decision to ACER and the European Commission today.

Our decision

We have considered the issues raised by the modification proposal and the Final Modification Report ("**FMR**") dated 29 May 2019. We have considered and taken into account the responses to the industry consultation on the modification proposal which are attached to the FMR.¹⁷ We have also considered and taken into account all of the responses to the Articles 26 and 28 TAR NC consultations, and the conclusion of ACER's analysis in accordance with Article 27(2) TAR NC.

Our consultation closed on 24 February 2020. Recognising that COVID-19 presents a serious challenge for the energy industry to tackle on behalf of the homes and businesses that depend on the sector for gas and electricity, we have also taken into account evidence provided after our consultation closed related to the impacts of the COVID-19 pandemic on this decision. We have concluded that:

- implementation of UNC678A will better facilitate the achievement of the relevant methodology objectives of the UNC;¹⁸
- directing that the modification be made is consistent with our principal objective and statutory duties,¹⁹ and;
- implementation should take place on 1 October 2020 (which coincides with the start of the gas year).

Reasons for our decision

Assessment against decision making criteria

We are required to consider the merits of any proposed changes, and where appropriate, direct that the modification be made. Before making any decision to direct a modification about gas transmission charging, we must satisfy ourselves that:

- the modification better facilitates the relevant UNC objectives as compared with both the status quo and also any alternative modifications put before us, and;
- the modification is consistent with our statutory duties under primary legislation and EU law with specific reference to TAR NC.

As part of our MTD, we identified a range of objectives which are set out in various pieces of legislation (eg the UNC, TAR NC, Gas Act 1986, Gas Directive 2009/73/EC and Gas

¹⁶ Article 26(1) of TAR NC sets out the obligation of the NRA to carry out periodic consultation and states that the final consultation prior to the decision referred to in Article 27(4) shall comply with the requirements set out in Articles 26 and 27. Article 27(4) states that within five months following the end of the final consultation, the NRA, acting in accordance with Article 41(6)(a) of Directive 2009/73/EC, shall take and publish a motivated decision on all items set out in Article 26(1). Upon publication, the NRA shall send to ACER and the European Commission its decision. Moreover, Article 28(1) of TAR states that at the same time as the final consultation carried out in accordance with Article 26(1), the NRA shall conduct a consultation with the NRAs of all directly connected member states and the relevant stakeholders on the items specified in this provision.

¹⁷ UNC modification proposals, modification reports and representations can be viewed on the Joint Office of Gas Transporters website at www.gasgovernance.co.uk

¹⁸ As set out in Standard Special Condition A11(1) of the Gas Transporters Licence, available at: <https://epr.ofgem.gov.uk/Content/Documents/Standard%20Special%20Condition%20-%20PART%20A%20Consolidated%20-%20Current%20Version.pdf>

¹⁹ The Authority's statutory duties are wider than matters which the Panel must take into consideration and are detailed mainly in the Gas Act 1986 as amended.

Regulation).²⁰ Given the overlap between these objectives and duties, we distilled them into the following criteria:

- Compliance with the legislative framework;
- Cost-reflective charging;
- Promotion of effective competition, avoiding undue discrimination and cross-subsidy;
- Network efficiency;
- Security of supply considerations;
- Consumer costs; and
- Environmental considerations.

While undertaking our principles-based assessment, we compared each component of the 11 modifications to the status quo to assess whether it is better than the baseline (ie better facilitates the objective in question). Taking both the assessment against the status quo and assessment of compliance, we then assessed the modifications to consider which proposal(s) would better facilitate the UNC objectives and be consistent with our statutory duties. In considering the PS RPM, we also compared it, as required by TAR NC, to the CWD RPM.

As part of our MTD consultation, we invited stakeholders' views about our principles-based assessment. We will not repeat our principle-based assessment in this decision. Unless otherwise stated in this section, our MTD principles-based assessment remains unchanged. In the remainder of this section, we will address comments and any evidence submitted to us as part of the consultation.

Compliance with the legislative framework

In our MTD, we said that only two modification proposals (UNC678 and UNC678A) are compliant with the relevant legislation (ie TAR NC and Gas Regulation). As part of our consultation, we asked respondents to consider the following question: 'What are your views on our conclusion that only two modifications - UNC678 and UNC678A - are compliant with the relevant legislation? If you disagree, please provide a fully reasoned explanation'²¹.

Eight respondents (Vermilion Energy Ireland, Equinor, E.ON, NGGT, Cadent and three respondents who requested that their responses be kept confidential) said that they agree with our compliance analysis. One other respondent (Uniper) also agreed with our compliance analysis and submitted comments in relation to Article 35 TAR NC which are addressed below.

Ten respondents (SSE, Storengy UK, South Hook Gas, Gazprom Marketing & Trading ("**Gazprom**"), ESB Generation & Trading ("**ESB**"), EP UK Investments ("**EP UK**"), Centrica, Drax, GSOG, Interconnector UK ("**IUK**") disagreed with aspects of our compliance analysis. We explore these comments in the remainder of this section.

One respondent (Energy UK) provided comments but did not explicitly agree or disagree.

In its report, ACER said that 'it mostly shares our views that only the two CWD and postage stamp RPMs comply with the relevant European legislation, namely NC TAR [sic] and the Regulation (EC) No. 715/2009' (§13 and §19). In the following subsections, we refer to excerpts from ACER's report in more detail.

²⁰ See Chapter 4 and Appendix 3 of our Minded to Decision and Draft Impact Assessment in relation to UNC678/A/B/C/D/E/F/G/H/I/J ("MTD").

²¹ See Question 6 in Appendix 1 of our MTD.

Ireland Security Discount

UNC678I proposes an enduring discount of 95% for qualifying quantities at the Moffat Interconnector UK Exit Point ("**Ireland Security Discount**"). The Ireland Security Discount would be available for nominated supply routes from Beach Terminals as identified by NNGT. UNC678I states that the Ireland Security Discount is proposed for security of supply purposes and to support the economic value of North Sea indigenous production.

UNC678I considers that the proposed discount is consistent with Article 9(2) of TAR NC. This provision states that: "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".

In our MTD, we said that this provision imposes a two-part test. As regards the first part of the test, it is necessary for the infrastructure to have been developed with the "purpose" of ending isolation. As regards the second part of the test, a proposed discount must be adopted "for the purposes of increasing security of supply".

Our MTD view was that the proposed Ireland Security Discount does not serve the purpose of increasing security of supply. Therefore, we said that the test laid down in Article 9(2) of TAR NC is not satisfied.

In its report (§19), ACER said that "it is not aware of any analysis of the impact of such a discount on the security of supply in Ireland, and cannot confirm whether or not this discount is compliant. In any case, [TAR NC] makes clear that such a discount is only optional". We agree with ACER that – unlike the mandatory storage discount under Article 9(1) TAR NC – the discount for the purposes of increasing security of supply under Article 9(2) TAR NC, even where the two-part test is satisfied, remains optional²².

Vermilion Energy Ireland agreed with our MTD that the proposed Ireland Security Discount is non-compliant.

In its response, Gazprom, the proposer of UNC678I, disagreed with our MTD. It said that the justification for the proposed discount serves security of supply in Ireland and the GB market by supporting UK Continental Shelf ("**UKCS**") production. Gazprom said that the discount would improve the NPV for upstream fields, allowing producers to extend their field life and so maximising economic recovery of upstream gas, which would amount to a security of supply benefit for the GB market.

ESB also disagreed with our MTD assessment and said that the Moffat interconnector was built specifically to end the isolation of member states, including part of the UK. It also said that continuation of gas flows to the Republic of Ireland, Northern Ireland and the Isle of Man and security of supply to small end users may be affected by the increase in gas costs because of transportation.

Security of supply envisaged in Article 9(2) relates to that concerned with ending member state isolation. This is consistent with Recital 5 of the Preamble to TAR NC²³. Therefore, we note that Article 9(2) does not justify the provision of a discount on the grounds of supporting domestic production.

²² This is confirmed by the wording of the two provisions. Article 9(1) states that a discount of at least 50% "shall" be applied to capacity-based transmission tariffs at storage facilities, whereas Article 9(2) states that a discount "may" be applied at entry points from and exit points to infrastructure developed with the purpose of ending the isolation of member states.

²³ Recital 5 of the Preamble to TAR NC states: "In order to promote security of supply, the granting of discounts should be considered for 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".

Regarding the security of supply in Ireland, we found no evidence that the discount serves the purposes of security of supply and therefore we conclude that the test laid down in Article 9(2) TAR is not satisfied. We note that the Commission for Regulation of Utilities (“CRU”) did not decide to introduce any discount for capacity at entry from Moffat despite the entry tariff being among the most expensive in the Irish gas system²⁴.

Moreover, Article 13(1) of the Gas Regulation²⁵ provides that transmission charges “shall be applied in a non-discriminatory manner”, while “avoiding cross-subsidies between network users”. In our MTD, we said that the fact that only gas entering into the NTS through beach terminals would qualify for the Ireland Security Discount is discriminatory. Moreover, we said that the proposed discount of 95%, insofar as it is applicable at one exit point (i.e. Moffat Interconnection Point), gives rise to an undue cross-subsidy. This remains our view. It follows that even if the pre-conditions to the exercise of the discretion under Article 9(2) TAR NC were satisfied, it would not be appropriate to exercise our discretion to adopt it, as to do so would still be non-compliant with EU law.

For these reasons, we consider that the Ireland Security Discount is not compliant with EU legislation.

Exclusions from Revenue Recovery Charges (“RRCs”)

All UNC678 modifications propose to introduce capacity-based RRCs to reconcile the difference between revenue recovered via capacity charges and NGGT Allowed Revenues. However, the various modifications differ as to the categories of capacity which are exempt from the capacity-based RRC. Three different categories of exemption from the application of the RRC have been proposed:

- All ‘Existing Contracts’ (within the meaning of Article 35, TAR NC)²⁶;
- Only Existing Contracts at storage sites²⁷;
- All contracts (current and new) at storage sites²⁸.

In our MTD we said that the proposals that exempt all Existing Contracts from the application of RRCs (UNC678, UNC678A, UNC678B, UNC678D, UNC678I, and UNC678J), better facilitate compliance (in accordance with objectives (g) and (e) of the UNC Code Relevant Objectives and UNC Charging Methodology Relevant Objectives respectively) with Article 35 of TAR NC than those that do not.

In its report (§19), ACER said that it shares our reading of Article 35 and said that ‘contracts concluded before 6 April 2017 and containing a fixed price element at that point in time shall not be affected by the implementation of the NC TAR’. However, ACER pointed out that, ‘given that a wide range of contracts are protected in this manner, this situation might induce discrimination risks and a lack of level playing field’. ACER, furthermore, states that TAR NC ‘does not detail how to resolve the potential contradiction between its Article 7(c), ensuring non-discrimination, and its Article 35, grandfathering existing contracts’ (§58).

As part of our consultation, we received comments from stakeholders both in support and against our MTD assessment of RRC exclusions. Equinor supported the view that RRCs should not be applied to Existing Contracts as per Article 35 of TAR NC. Uniper also supported our MTD interpretation of Article 35 TAR NC but said that NGGT risks undermining Art. 35 by applying RRCs to Existing Contracts that are traded between Shippers.

²⁴ <https://www.cru.ie/wp-content/uploads/2019/06/CRU19060-Harmonised-Transmission-Tariff-Methodology-for-Gas-Decision-Paper.pdf>

²⁵ Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005.

²⁶ UNC678; UNC678A; UNC678B; UNC678D; UNC678I; UNC678J.

²⁷ UNC678G; UNC678H.

²⁸ UNC678C; UNC678E; UNC678F.

Vermillion Energy Ireland said that it agrees with our MTD assessment and said that 'exemption from a revenue recovery charge is not permissible under Article 35 for contracts/booking made from 6 April 2017. Proposals which exempt new storage contracts from a revenue recovery charge are therefore non-compliant'.

SSE stated that it disagrees on the compliance assessment of Article 35, citing legal advice on this matter.²⁹ SSE's view is that the reserve price of Existing Contracts should be protected but that they should pay the variable RRC because it was expected at the time of booking that they would be exposed to this variable charge.

Storengy and GSOG said that secondary traded Existing Contracts should not be subject to RRCs and so disagreed that UNC678 and UNC678A are compliant with TAR NC.

ESB said it considers that it is 'unclear [...] how exemptions from RRCs for Existing Contracts do not also constitute a dual regime, which can impact on competition'.

Article 35(1) of TAR NC provides that:

"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".

Article 35 requires that contracts or capacity bookings which were 'concluded' before 6 April 2017 and which contained a fixed price element at that point in time, be that capacity-based or commodity-based, are protected in their entirety against TAR NC.

The phrase "capacity and/or commodity-based transmission tariffs" is important in defining the scope of Article 35. It makes it clear that Article 35 applies in cases where a contract foresees no change in the level of capacity transmission tariff or commodity-based transmission tariff or both. Because of the nature of capacity bookings in GB, for a contract / capacity booking to come within the ambit of Article 35 it must foresee no change in the level of **either** commodity **or** capacity transmission tariffs. Once a contract is within the scope of Article 35, all of the transmission tariffs resulting from that contract are "grandfathered", which is to say protected from the operation of TAR NC.

In other words, the fact that one element of Existing Contracts (i.e. the commodity element) is variable does not result in a loss of protection under Article 35. The opposite interpretation would effectively ignore the use of the term "and/or" in Article 35 as explained above.

The first suite of modifications (ie UNC678, UNC678A, UNC678B, UNC678D, UNC678I, and UNC678J), which proposes to exempt all Existing Contracts from the application of RRCs, is consistent with the operation of Article 35 TAR NC. Therefore, these proposals "better facilitate" compliance with Article 35 of TAR NC than the other UNC678 proposals.

The second suite of proposals to exclude only Existing Contracts *at storage sites* from RRCs (UNC678G and UNC678H) are not consistent with Article 35. Article 35 offers no basis for the differential treatment of **only** Existing Contracts at storage sites. Article 35 of TAR NC expressly protects **all** Existing Contracts from increases in the level of transmission tariffs in their entirety. Evidently, application of new RRCs to contracts falling within the scope of Article 35 TAR NC would "affect the levels of transmission tariffs" in respect of those contracts, contrary to the intention of TAR NC.

The third suite of modifications (UNC678C, UNC678E, and UNC678F) also fail to give effect to Article 35 for the same reasons highlighted above. These proposals would offer exemption from the application of the RRC to both existing and new contracts at storage sites, while requiring all other qualifying Existing Contracts to pay the RRC. Subjecting

²⁹ 'SSE Legal View on Article 35 (06 March 2019)' available at: <https://www.gasgovernance.co.uk/0678>

Existing Contracts to a change in the level of tariffs as a result of revisions to the UNC to implement TAR NC where those contracts fall within the scope of Article 35 contravenes that provision.

In terms of the points made by Storengy and GSOG that secondary traded Existing Contracts should be exempt from RRCs, we note that none of the 11 UNC678 modifications included such an exemption. We also note that TAR NC is silent on the treatment of assigned Existing Contracts. None of the proposers have provided an adequate explanation for how a secondary trading system would operate in practice, nor indeed the underlying contractual terms that would govern it. We also note the comments of Workgroup participants.³⁰

For the above reasons, we confirm that the proposals that exempt all Existing Contracts (except those that have been secondary traded) from the application of RRCs (UNC678, UNC678A, UNC678B, UNC678D, UNC678I, and UNC678J) better facilitate compliance with Article 35 of TAR NC than those that do not.

The NTS Optional Charge ("NOC")

Six modifications³¹ propose to introduce a capacity-based NTS Optional Charge ("**NOC**"), whereas five modifications³² propose to remove the current Optional Commodity Charge ("**OCC**") without replacement.

In our MTD, we set out the legal principles against which we assessed the different NOC proposals. Article 7 of TAR NC states that the RPM "shall aim at ... prevent[ing] undue cross-subsidisation". Furthermore, Article 13 of the Gas Regulation states that tariffs "shall facilitate efficient gas trade and competition, while at the same time avoiding cross-subsidies".

As we said in our MTD, the NOC proposals are not compliant with the requirements of the Gas Regulation and TAR NC. Specifically, we said that UNC678B (NOC Methodology 1) fails to meet the legal requirement of avoiding undue cross-subsidies, because it would be available to routes that do not pose a credible risk of bypass. We also noted that UNC678D/G/H/J (NOC Methodology 2), would give rise to an "undue" cross-subsidy, though to a lesser extent compared to NOC Methodology 1. Finally, regarding the proposed Wheeling (UNC678I), we noted that the exclusion of non-zero kilometre routes was not objectively justified by the proposer so it appears as an arbitrary or unprincipled distinction in light of the fact that the rationale of any NOC tariff is to address the issue of inefficient bypass. Moreover, we noted that Wheeling, despite its narrower eligibility, would also lead to a discount which is not well-targeted. We said that the Wheeling proposal has the potential of granting a discount which is higher than what is required to avoid inefficient bypass of the NTS and so gives rise to an undue cross-subsidy.

Further, the Wheeling charge is part of UNC678I which is, in any case, a non-compliant modification proposal as it contains the Ireland Security Discount which does not comply with Article 9(2) of TAR NC and Article 13(1) of the Gas Regulation, as stated above.

For the reasons set out above, our MTD found that the modifications that do not contain a NOC element (UNC678/A/C/E/F) better facilitate compliance with EU law.

As part of our consultation we received input from respondents regarding our MTD position.

Vermillion said that it agrees with Ofgem that the NOC and Wheeling proposals are non-compliant.

³⁰ UNC678/A/B/C/D/E/F/G/H/I/J FMR (29 May 2019), pages 35-36, available at: <https://www.gasgovernance.co.uk/0678>

³¹ UNC678B/D/G/H/I/J.

³² UNC678/A/C/E/F.

South Hook Gas and IUK disagreed with our assessment that NOC Methodology 2 is non-compliant, with the former citing legal advice that was shared with the UNC Workgroup in May 2019.³³

EP UK Investments said that it does not agree with our conclusion. It said that the applicable tariff under NOC Methodology 2 is based on the expected cost of building a bypass pipeline. It also said that the use of the Maximum NTS Exit Point Offtake Rate ("**MNEPOR**")³⁴ in NOC Methodology 2 does not underestimate the cost of building a bypass pipeline and so does not result in undue cross-subsidy. We address this comment later in the decision, under the section 'Quantitative assessment'.

In our MTD (§4.31.), we said that NOC Methodology 2 would give rise to significant reductions in charges for those eligible for these discounts, which would lead to an increase in tariffs for other (non-NOC availing) users. NOC Methodology 2 would be available to routes that do not pose a credible risk of bypass. Also, regarding those routes that could pose a credible bypass risk, the level of the discount offered under NOC Methodology 2 would be higher than necessary to disincentivise inefficient bypass of the NTS. We therefore concluded that NOC Methodology 2 would give rise to an "undue" cross-subsidy which contravenes the provisions of Article 7 of TAR NC and Article 13 of the Gas Regulation. We confirm that this remains our view.

Drax said that it disagrees with Ofgem that the optional charges presented amount to undue discounts and said that this is in part accepted by Ofgem in §4.65 of the MTD.

In our MTD (§7.21.), we said that the construction or usage of alternative network infrastructure to the NTS which leads to higher costs overall would not represent an efficient outcome. However, we also recognised that tariff arrangements must comply with the requirements of EU law (Article 7 of TAR NC and Article 13 of the Gas Regulation) for the avoidance of undue cross-subsidisation (§4.28.). Preventing inefficient bypass of the NTS is, in our view, desirable but this should be achieved in a targeted, proportionate and compliant manner.

For the reasons stated above, we confirm our view that the modifications that do not contain a NOC element (UNC678/A/C/E/F) better facilitate compliance with EU law than those that do include a NOC element.

Cost Reflectivity

Choice of RPM

The choice between the RPMs proposed by the UNC678 modifications relates to different allocation of costs geographically. In our MTD we stated our preference for a PS methodology. A CWD methodology uses both capacity and distance to determine charges, whereas the PS methodology uses capacity only.

Distance as a cost driver

In our MTD, we said that the key principles that are relevant for charges in a meshed network largely operating below capacity with expected declining demand³⁵ are to avoid harmful distortions and to achieve a fair recovery of costs. We said network charges based on the CWD RPM are likely to incentivise network users to bring gas onto the NTS at entry points closer to demand centres, without any significant cost savings. Users in more distant

³³ See 'Representation 0678 - SouthHook Gas Legal Opinion on NTS Optional Capacity Charge (08 May 2019)' available at: <https://www.gasgovernance.co.uk/0678/Reps>

³⁴ The Maximum NTS Exit Point Offtake Rate ("**MNEPOR**") is the instantaneous rate of offtake (in kWh/hour) which the Transporter determines to be the maximum instantaneous rate at which it is feasible to make gas available for offtake at the NTS Exit Point.

³⁵ We recognise that there is some uncertainty about the longer term usage of the NTS, including the possible transmission of other gases. We do not think it is appropriate to take account of these possible future uses in this decision, due to the considerable uncertainty and the long time horizons involved.

parts of the network would pay a greater portion of revenue recovery under a CWD RPM, without significantly increasing costs of the network. Hence the distance driver is unlikely to be a strong reflection of users' contribution towards cost on the NTS, given the meshed nature of the network and the presence of spare capacity on the NTS.

In our consultation, several stakeholders said that distance is a key driver of cost and therefore CWD is more cost-reflective than PS. Vermilion Energy Ireland stated that network costs are intrinsically linked to pipeline building costs and that PS does not reflect the heterogeneity of the NTS. In our MTD, we noted that distance is often a driver of incremental costs of networks. However, in a meshed network largely operating below capacity with expected declining demand, we think a fair approach to cost recovery should be based on the level of access to the system irrespective of individual location. In the context of a meshed network largely operating below capacity with expected declining demand, the benefits and relevance of cost-reflectivity to network charges are substantially lower.

Some stakeholders also said that the GB NTS is not a meshed network or does not have spare capacity. Stakeholders said that some entry and exit points may still be in need of new capacity and National Grid do not assume all their supplies are available at one time. ESB and IUK suggested that the consideration of the network as meshed should be amended to reflect its elongated structure. However, the GB network has multiple entry and exit points, with a range of routes for gas flows across the country. Therefore, it is far from certain that the distance from an entry point to the average of the exit points, or the distance of an exit point to the average of the entry points, represent the likely usage of the network for any particular user. Also while some points of the network may face constraints, in a meshed network largely operating below capacity with expected declining demand, the marginal costs of additional capacity, are, on many parts of the network, close to zero. If there is a need for future expansion of the network, we consider that this can continue to be managed via the rules established for capacity release in the Methodology Statements and signals regarding whether and where investment should take place.

The Forecast Contracted Capacity ("FCC")

We said in our MTD that we identified a risk that the methodology proposed by NGGT may tend towards over-forecasting of capacity and thus, under recovery of revenues. This could reduce the extent to which the charging structure remains reflective of the intended tariff design. However, we would not expect the impact of this trend to be significant. We would also expect amendments to the FCC methodology to be made to ensure that lessons learned from forecasting errors are quickly acted on. Several stakeholders noted that charging was placed in the UNC following the first Code Governance Review and it is logical and consistent for the FCC to also be placed in the UNC. We noted in our MTD that we consider the transparency and consistency of governance benefits arising from including the FCC in the UNC to outweigh those of maintaining an FCC outside of the UNC. However, the FCC governance is a relatively discrete, minor part of the UNC678 modifications, as noted below (under 'Assessment against the applicable UNC objectives').

Existing Contracts in the FCC

In our MTD we said that excluding the capacity and revenue from Existing Contracts from the calculation of the reference price is better than including them. This is because the revenue to be recovered from Existing Contracts is already known and fixed at the time of the reference price calculation. We received no specific comments on this in the responses to our consultation.

NTS Optional Charge ("NOC")

In our MTD we said that we do not consider the current OCC to be a justified charge (based on costs savings provided to the system) and hence we support its removal. We said that we are of the view that the merits of a NOC should be considered in the context of the risk of NTS bypass.

Several responses to our consultation stated that the removal of a NOC from charging methodology could decrease the revenue recovered through charges if some users chose to disconnect from the NTS. Some stakeholders have said that bypassing the NTS will become an economically viable project if a NOC is absent from the charging methodology. In our view, the construction or usage of alternative network infrastructure to the NTS which leads to higher costs overall would not represent an efficient outcome. We have said that the merits of a NOC should be considered in the context of the risk of system bypass. As set out above, we do not consider the current OCC to be a justified charge and consider the discounts within NOC Methodology 1 and NOC Methodology 2 to be too high and available to routes not posing a credible risk of system bypass. We consider the Wheeling charge gives rise to an undue cross-subsidy as set out above.

Competition, undue discrimination and cross-subsidy

Treatment of Existing Contracts RRC exclusions

In our MTD we said that while we consider that protection of Existing Contracts may therefore lead to a 'dual regime', we also consider that this presents a transitional arrangement which provides the right price protection for a limited period of time. We said that where proposals are made for revenue recovery exclusions other than those required to give effect to Article 35 of TAR NC, we consider that these represent a discriminatory cross-subsidy between market participants, without justification.

ACER considered that the protection of Existing Contracts is mandated by Article 35 TAR NC and concluded that the application of that provision would not lead to undue discrimination between network users in GB. It nonetheless recommended that we 'closely monitor the impact of this 'dual regime' in the coming years and to implement remedies if detrimental effects were such that they would significantly affect competition in a negative way.' ACER also encouraged network users to inform Ofgem in case the combination of tariff and market rules works to their detriment (§62-63).

Discounts at storage points

In our consultation some stakeholders have said that the 50% discount proposed in modification UNC678A threatens the ongoing operation of storage facilities in GB through increased costs and that this could result in reductions in competition and security of supply. We said in our MTD that we consider a discount of at least 50% for storage entry and exit capacity to be appropriate and think there is some merit in the arguments made by the proposers of UNC678 C/E/F to justify a discount of greater than 50% for storage facilities. However, the modifications with 80% storage discounts contain other components that mean that those modifications are not compliant with the relevant legislation and cannot be accepted. Security of supply aspects relating to discount at storage points are addressed later in this decision.

Impact of the FCC and inclusion in the UNC

We consider that moving to a forecast of contracted capacity will, in general, benefit competition. On balance, we consider the transparency and consistency of governance benefits arising from including the FCC in the UNC to outweigh those of maintaining the FCC outside of the UNC.

Some respondents to our consultation said that having the FCC governed in the UNC may damage the stability or adaptability of the FCC because of exposure to the commercial incentives of stakeholders engaging in the UNC process. NGGT also said that the FCC should not be incorporated into the UNC as written, but should instead be made more flexible for future scenarios. We are conscious of the importance of keeping the FCC up to date and the potential need for regular changes to the FCC methodology, particularly in the early years. However, we consider that the increased transparency and consistency with

the governance arrangements of other elements of the tariff regime by including the FCC in the UNC outweigh the benefits of maintaining an FCC outside of the UNC.

Energy UK, ESB, GSOG, Storengy UK and Uniper raised concerns regarding the FCC in their responses to our question as to whether UNC678A enables network users to reproduce the calculation of reference prices and their accurate forecast. The respondents said that network users may have difficulty forecasting the FCC element, particularly in the first years of its use, and some respondents raised concerns over the transparency of input data.

We have already addressed the issue of governance of the FCC methodology above (under 'Cost Reflectivity'). In our MTD (Appendix 5 of our MTD), we also noted that the proposed PS RPM applies the same reference price for the same unit of capacity at all entry points and at all exit points. It is the simplest RPM, as it does not include any reference to the distance between entry and exit points, and so enables network users to reproduce the calculation of reference prices and their accurate forecast. We confirm that this remains our view.

We note that an example of the indicative values produced by CWD and PS for certain tariff years is contained in an illustrative model, published by the Joint Office of Gas Transporters.³⁶

We note that ACER, in its report (§27-§30), concluded that the proposed RPM is transparent and enables network users to reproduce the calculation of reference prices and their accurate forecast.

NTS Optional Charge ("NOC")

In our MTD, we said that we consider the removal of the current OCC to benefit competition. This is partly because the lack of an inflation adjustment has, in our view, led to an excessive uptake of the OCC tariff over time which impacts on competition in the market. This also acts as a form of discrimination with short-haul users being subsidised by those who do not use the product. We recognise, as some respondents to our consultation have stated, that the absence of a NOC may impact network efficiency and revenue recovery. These issues are addressed in the Network efficiency section below.

Network efficiency

Choice of RPM

When comparing CWD and PS methodologies in our MTD, we considered that signals introduced by CWD are unlikely to reflect, and result in significant savings to, system costs given spare system capacity. We concluded that both proposed RPMs, in combination with the introduction of floating payable prices and removal of firm capacity discounts, should remove the incentive to overbook capacity that the current arrangements tend to produce and encourage users to make more efficient use of the network.

Some respondents to our consultation said that locational signals are important for efficient future investment decisions. Respondents also considered that it is possible that future investments, including green gas investments, could lead to new constraints on the network and that the absence of a locational signal in the PS RPM could result in less efficient location decisions. Comparing the CWD and PS methodologies, the CWD may introduce signals for use of the network which discourage flows at more distant entry and exit points. Given spare system capacity, this is unlikely to result in significant savings to system costs and may therefore lead to distortions and be less fair than a PS approach where all entry and exit points face an equivalent tariff. We also noted in our MTD that in a small number of cases, the lack of forward-looking cost reflectivity (present in neither the

³⁶ See file named "Sensitivity Tool (Model) 0678 V3.1 CWD Transmission Services (21 March 2019)" as downloadable Excel file on the page <https://www.gasgovernance.co.uk/0678/Models>

CWD nor PS RPMs) may result in inefficient investment. However, if used effectively, and in conjunction with the proposed RII02 reopener process for managing incremental capacity funding requests, we consider that NGGT's Planning and Advanced Reservation of Capacity Agreement ("**PARCA**") and Application to Offer ("**A2O**") processes should allow for the right investment signals to be maintained.

NTS Optional Charge ("NOC")

Several responses to our consultation stated that the absence of a NOC element in UNC678A will lead to some users of the OCC to bypass the NTS. In our view, the construction or usage of alternative network infrastructure to the NTS which leads to higher costs overall would not represent an efficient outcome. A NOC that is well designed and targeted to restrict benefit to those that may otherwise bypass the system, and where the level of discount is appropriately designed such that it reduces the risk of bypass without providing additional subsidy beyond what is required, may have benefits in terms of the efficiency of network use, subject to compliance with TAR NC. However, we do not consider that any of the NOC methodologies proposed strike the right balance to reduce risk of bypass while also minimising the reduction in NGGT revenue arising from the discount, which is then recovered from other users.

Security of Supply

We concluded in our MTD that impacts on security of supply, where they exist, are also likely to be relatively marginal and related to price stability rather than physical security of supply. The 2019 BEIS Statutory Security of Supply report said that GB's gas system has delivered securely to date and is expected to continue to function well, with a diverse range of supply sources and sufficient delivery capacity to more than meet demand.³⁷

Impacts of an 80% storage discount

In our MTD we said that, to the extent that a discount above 50% for storage can be justified as appropriate and non-discriminatory, the consequential impacts on price stability resulting from the commercial outlook for storage may also be taken into account.

Some responses to the consultation said that the 50% storage discount could affect security of supply by threatening the ongoing operation of storage facilities in GB through increased costs. We have reviewed the responses alongside the evidence presented both in response to our consultation and previously. We remain of the view that any security of supply impacts are likely to be related to price stability rather than physical security. We also note that the modifications which proposed storage discounts higher than 50% contain other components that mean those modifications are not compliant with the relevant legislation and hence cannot be approved. We remain open to considering future modifications that may be proposed for a discount for storage of higher than 50%, which will be considered on their own merits.

Tariffs at Interconnection Points

We consider that removing the commodity element of the charge in accordance with the TAR NC would eliminate a distortion caused by such arrangements with resultant benefits for GB security of supply. In our MTD, we said that all modification proposals would remove commodity-based revenue recovery at Interconnection Points ("**IP/s**"). As the commodity based charge represents a marginal cost of entry and exit of gas, this can impact on the decisions of shippers on whether to flow gas over IPs. This can reduce flows of gas between regions to sub-optimal levels.

³⁷ BEIS Statutory Security of Supply report: <https://www.gov.uk/government/publications/statutory-security-of-supply-report-2019>

Ireland Security Discount

We have already assessed the proposed Ireland Security Discount above (under 'Compliance'). ESB, CRU and Gazprom said that the tariffs at the Moffat IP resulting from UNC678A will impact Irish gas prices and Gazprom suggested the tariffs may reduce the security of supply in Ireland, Northern Ireland and the Isle of Man. We consider that a discount for exports to these markets is not appropriate, nor is it required under TAR NC. Gazprom also said that the proposed Ireland Security Discount 'does not lead to distortion in GB NTS capacity prices and will have very little impact on GB customers'. However, we reiterate our view that the Ireland Security Discount would have a negative impact with respect to the principle of competition (see §4.99. – 4.103. of our MTD) and is non-compliant with the legislation.

Consumer costs

Choice of RPM

Given the current levels of tariff dispersion, both RPMs would result in some increases and decreases in tariffs for consumers in different parts of the country relative to the status quo. However, all gas consumers will benefit from reduced gas wholesale prices resulting from this decision.

Some Gas Distribution Networks ("**GDNs**") said that, when comparing CWD to PS, PS will provide a greater change in tariffs for consumers relative to the status quo resulting in a bigger impact on their bills. SGN has raised concerns over the potential consumer impact arising from both PS and CWD compared to the current long run marginal cost ("**LRMC**") methodology. Relative to the LRMC, both CWD and PS RPMs would result in lower levels of tariff dispersions at exit, reducing the extent to which consumers in different parts of GB pay different amounts for use of the gas systems to flow gas. SGN and Cadent set out estimates in their consultation responses of the impact on their customers' bills in different gas distribution networks. Some respondents have also said that there will be a misalignment between the MTD proposed implementation date and RII02 implementation. In our MTD we proposed that implementation should take place on 1 October 2020, this is to coincide with the start of the gas year. The vast majority of respondents agreed that implementation should take place at the start of a gas year.

Vulnerable consumers

Vulnerable consumers will face two impacts on their bills from these reforms: impacts from wholesale gas and electricity prices and impacts from tariffs at GDN exit points. Where reform leads to a reduction in the gas or electricity market prices, vulnerable consumers will benefit from decreased bills. The impacts from tariffs at GDN exit points will increase bills for some vulnerable consumers and decrease bills for others. As explored in the Choice of RPM section above, this will depend on which part of the country the consumers are in. Apart from bill impacts, we do not identify the scope for any wider impacts on vulnerable consumers.

Environmental considerations

In our MTD we said that the main mechanisms for environmental impacts from this decision would be through any changes to gas demand resulting from changes to tariffs and to the wholesale gas price. We also noted that, as an emerging technology, green gas (eg biomethane and bioSNG) market entrants may prioritise predictable and stable charges.³⁸ To this extent, the PS RPM may be marginally preferable to the CWD.

³⁸ This informed the decision of the Commission for the Regulation of Utilities to introduce special arrangements for renewable gas facilities to have a single notional tariff in order to promote stability and predictability of the tariff.

GSOG stated in their response to our consultation that neither PS nor CWD are flexible enough to accommodate future transitions in the gas market, including green gas innovation and market entrants. While significant changes to the usage of the gas transmission network remain uncertain, we consider it appropriate to consider future environmental impacts in the context of a meshed network largely operating below capacity with expected declining demand. We consider the PARCA and A2O processes, if used effectively, to allow for the right investment signals to be maintained. Centrica said in their response to our consultation that the impact of the charging regime on green gas investment is minimal compared to other cost factors. We do, however, expect stable and predictable charges to benefit new green gas market entrants.

Quantitative Assessment

Final Impact Assessment

In our MTD, we presented the results of modelling undertaken by CEPA to quantify the potential impacts of the modification options put forward by the industry. We considered the impacts on transmission tariffs and on the wider system, for example on wholesale market prices and producer and consumer welfare. Our primary focus was on the impacts on gas consumers – where ‘consumers’ is defined broadly. We also asked CEPA to model the potential impacts on the electricity market and electricity consumers, as we can have regard to those impacts when making our decision. CEPA’s estimates of potential impacts on electricity consumers were included in its analytical report.

Today, we are publishing our **Final Impact Assessment** and CEPA’s updated analytical report as subsidiary documents to our decision. The estimated consumer benefits are set out in the Final Impact Assessment results. The change in consumer benefits from the status quo is driven by a combination of changes in the gas market price, the gas transmission tariff, and the change to the electricity market price.

In early May 2020, we published new Impact Assessment (“**IA**”) guidance.³⁹ This guidance was developed concurrently with our Draft and Final Impact Assessments on the UNC678 modifications. We have considered whether its application, in particular guidance on the analysis of distributional impacts, would materially change our IA, and so should be included. We applied the new distributional framework and no material changes were found. The reason being that the proposed modifications have effects on domestic consumers in direct proportion to their energy consumption. Therefore, we have concluded that it would be disproportionate to change the presentation of results.

For our Final Impact Assessment (based on the central modelling scenario: the 2019 FES Two Degrees scenario⁴⁰) the expected benefits to gas consumers from the two compliant modifications - UNC678 and UNC678A - compared to the status quo are set out below:

Expected benefits to gas consumers from 2022 - 2031 (NPV £bn, discounted to £18/19) under Two Degrees

	UNC678 (CWD)	UNC678A (Postage Stamp)
Gas domestic consumers	£0.75bn	£0.72bn
Gas non-domestic consumers	£0.46bn	£0.43bn
Gas-fired power generators (gas market impacts only) ⁴¹	£0.06bn	£0.08bn
Total gas consumers	£1.28bn	£1.23bn

³⁹ Ofgem’s Impact Assessment guidance: <https://www.ofgem.gov.uk/publications-and-updates/impact-assessment-guidance>

⁴⁰ In light of the Government’s 2019 decision to adopt a legally binding target of 100% carbon emissions reduction by 2050, we considered that for the purposes of assessing the modifications, the Two Degrees scenario should be used as the central scenario. This is explained in more detail in the Final IA.

⁴¹ We note that this does not include any impacts on the electricity market revenues of gas-fired power generators which we would also expect to be affected.

The estimated consumer benefits have been revised and are higher than in our Draft Impact Assessment. This is because CEPA identified an issue regarding the calculation of tariffs under the status quo which were modelled separately to tariffs under the modification options. This issue was limited to the status quo modelling and so the relative impacts between the modification options have remained unchanged. The overall magnitude of expected consumer benefits is affected to a similar degree across all modification options but this has not affected our assessment of the modification options, as the relative impacts between modifications remains the same.

The overall consumer benefits increase under the Two Degrees scenario. The overall consumer benefits reduce slightly under the Steady Progression scenario (we treated the Steady Progression scenario as a sensitivity in our Impact Assessment given the government's commitment to net-zero. This is explained in the Final IA).

As the change is limited to the status quo and does not affect the relative impacts of the different modification options, our relative assessment of the quantitative analysis as set out in our MTD remains unchanged. We are publishing our Final Impact Assessment (Chapter 5 and Appendix 2 of our MTD) containing the updated results, as a subsidiary document to this decision. We are also publishing an updated version of the CEPA analytical report which contains the detailed results.

The results above show that consumers benefit from moving from the status quo to either of the two compliant modification options. A more detailed discussion can be found in CEPA's analytical report. However, broadly speaking, the main reason for this is that current discounted network tariffs, including the existence of a short-haul discount and discounts for short term products, among other things which are amended under the modifications, allow those users who benefit to purchase capacity at a discount to the standard products. This is subsidised by the standard products, for example for non-short-haul flows, which cost more as a result.⁴²

The modifications replace commodity charges with capacity based tariffs. However, the availability of short term capacity products combined with spare capacity on the system is likely to mean that many gas shippers continue to include network tariffs as a marginal cost of gas supply. Therefore, we assume that changes to tariffs will lead to changes in the National Balancing Point ("**NBP**") price. Therefore, when these discounts are removed, it will have two separate impacts on the gas price. Firstly, where those using discounts are setting the gas price, removal of the discounts will result in the gas price increasing. Secondly, where those using the standard products are setting the gas price, the removal of the discounts will decrease the gas price since their tariff will now be lower as a result of removing the cross-subsidy. Flows using the standard products are not discounted and therefore, all else equal, these flows of gas will be more expensive than flows using discounted products. The majority of the time, flows using standard products set the NBP price in CEPA's modelling, and so the removal of these discounts lowers the NBP price on average and the second effect dominates.

CEPA's modelling indicates that gas consumers are marginally better off overall under CWD than PS. Whilst these differences are not large, and the precise mechanism is complex, the main reason is that between the two charging options, PS offers a lower tariff to beach terminals, which are further from demand and so face a higher tariff under CWD, and a higher tariff to all other entry points. As entry points other than beach terminals set the marginal NBP price more often, the lower tariff under CWD results in a slightly lower NBP price in CEPA's modelling.

In our MTD, we did not refer to the benefits accruing to electricity consumers. These benefits arise because of different NTS exit prices faced by gas-fired electricity generators as consumers of gas. As such, we expect these benefits to get passed on to electricity

⁴² All entry-exit combinations that use short-haul discounts also use non-short-haul products in some periods, to a varying extent, because of routes being constrained. Therefore, even those who benefit from short-haul discounts will pay higher tariffs on some of their flows.

consumers through reduced wholesale electricity prices. **The expected benefits for electricity consumers from 2022 - 2031 (NPV, discounted to £18/19) under Two Degrees are expected to be £2.36bn under PS and £1.75bn under CWD.** These benefits are in addition to the benefits for gas consumers set out in the table above. More detail on the benefits for electricity consumers are set out in CEPA's accompanying final analytical report.

We considered whether we needed to re-run the impact assessment modelling in the context of COVID-19, noting that we did run a sensitivity for the Targeted Charging Review ("TCR") modelling when the Capacity Market ("CM") was suspended in 2018⁴³. The impact of changing demand because of COVID-19 is not as fundamental a change to the market as the suspension of the CM was to the TCR: demand will always fluctuate to a greater or lesser degree. However, given the unprecedented nature of COVID-19 we undertook analysis to understand the robustness of the decision to lower future demand caused by COVID-19. We concluded that lower demand is likely to impact the NPV of our decision to some extent, but it is difficult to determine the precise impact with any certainty. On the one hand, lower demand directly reduces consumer benefits as lower wholesale gas prices are applied to lower demand. However, CEPA's modelling results also indicate that lower demand may increase the distortion caused by the short-haul discount and so increase tariffs paid by non-short-haul users. Therefore, our decision could lead to a greater reduction in the NBP price under lower demand conditions. These two effects work in opposite directions and it is challenging to estimate the net effect, particularly given uncertainty surrounding demand and more widely. Our assessment is that the possibility of lower demand conditions does not change our conclusion that the decision will lead to significant consumer benefits.

While we are confident that the modelling results are reliable, we note that as with any modelling, particularly modelling of a complex nature looking at multi-year impacts, we are conscious of the need to apply caution when drawing precise conclusions from results. The uncertain nature of some assumptions, such as future gas and electricity demand, technological developments, and commodity prices, mean that actual outcomes will inevitably differ from forecasts and that outcomes identified in the modelling may be sensitive to market trends (§5.10. of our MTD).

As with any modelling of future impacts under scenarios, some simplifying assumptions were necessary in CEPA's modelling of the gas market and policy reform proposals.⁴⁴ We address some of these assumptions below and as part of the next subsection where we assess the relevant consultation responses. In the next paragraphs, we set out the effect that these assumptions may have on the results. We consider that the effect that these simplifying assumptions may have does not undermine the conclusions from CEPA's modelling results.

First, for all users other than GDNs, it was assumed that capacity bookings are equal to flows. As explained in the next subsection, we consider that this is appropriate. We note that this assumption may have the effect of underestimating capacity bookings, as in practice overbooking may occur to some extent. All else being equal, this assumption has the potential to overestimate the level of capacity tariffs (as revenue recovery is spread across a narrower set of bookings). However, as this assumption is applied consistently across all modelled options (including the status quo)⁴⁵, it does not affect the relative impact among the options significantly.

⁴³ We ran a new sensitivity for the TCR modelling because the interactions between the CM and the decision were significant: (i) we expected the Capacity Market to clear at different prices as a direct result of the TCR reforms; and (ii) without the CM in place, the assumption we had made about new build generation over the forecast period would no longer hold.

⁴⁴ A detailed presentation of the assumptions used can be found in CEPA's analytical report that we published today. The most important assumptions were discussed with the industry as part of the NTS CMF.

⁴⁵ We summarised the options modelled in Figure 0.4 of our MTD (page 71).

Secondly, the System Operator (“SO”) Commodity Charge⁴⁶ and the proposed non-transmission services charges⁴⁷ were not included in the modelling analysis carried out by CEPA. This is explored in more detail in the next subsection. We recognise that including the SO Commodity and non-transmission charges in the scope of the model would have an impact on the uptake of the short-haul product and potentially on the estimated likelihood of bypass. We have used a sensitivity to estimate the impact that additional take-up would have on the TO and SO Commodity charges and we have concluded that this does not affect our assessment of the modelled options. Moreover, for the reasons that we set out in the next subsection, we consider that other cost considerations (such as land use costs) would outweigh the potential to avoid the SO Commodity / non-transmission charges. As CEPA recognises, their analysis is likely to represent an overestimate of the likelihood of bypass.

Thirdly, NTS-connected ‘short-haul power stations’ (ie power stations using short haul discounts) were modelled as individual nodes with independent efficiencies. ‘Non short haul power stations’ (ie those not using short haul discounts) were modelled as a single node. The efficiency of the non-short-haul power station node was derived to maintain a consistent average power station efficiency for the full fleet of power stations. In practice, we would expect the average efficiency of non-short-haul power stations to be lower than the derived efficiency used in the modelling. However, this approach was followed to retain a consistent fleet efficiency across the modelled options. CEPA note that power stations modelled using individual nodes make up 80% of the total NTS-connected gas-fired generation capacity, and 88% of CCGT installed capacity.

CEPA considers this modelling approach for power stations to be the most appropriate and proportionate and note that the non-short-haul power station node is generally active in the merit order under all modification options in all years and scenarios. Therefore, the aggregated efficiency does not have a direct impact on the electricity market price within any options under the current modelling. CEPA carried out sensitivity analysis to consider the potential impacts of changing assumptions regarding the non-short-haul power station node efficiency. For this analysis, they assumed that the node replaced an alternative power station as the marginal unit for all periods in the year, in order to consider the largest potential impact. Under these conditions, CEPA estimated a maximum possible impact on the change in the electricity price between the status quo and modification options of around -3% to +7%.

Finally, we note that we have discussed the key assumptions and results of the modelling with industry stakeholders. Specifically, in September 2019, we invited CEPA to the NTS CMF meeting to present the proposed modelling approach to stakeholders.⁴⁸ In February 2020, we organised a second session with CEPA to provide interested parties additional clarity regarding the Draft Impact Assessment. As part of that session, stakeholders had the opportunity to submit written questions in advance and CEPA provided a full written response.⁴⁹

Assessment of the consultation responses

As part of our consultation we asked respondents to provide their views on our assessment of the quantitative analysis (Question 4). Six respondents (E.ON, Equinor, Vermilion Energy Ireland, Northern Gas Networks, Cadent, and NGGT) fully supported the quantitative analysis. Two respondents (Storengy and GSOG) welcomed the quantitative analysis but said that in their view the impact of proposals on storage revenues is understated.

⁴⁶ This is a charge per unit of gas allocated by the NTS and is applied uniformly on entry and exit flows at NTS System Points.

⁴⁷ The proposed non-transmission services charges under UNC678A are defined in the Appendix to this decision.

⁴⁸ The relevant materials from the 03 September 2019 NTS CMF meeting are available at:

<https://www.gasgovernance.co.uk/ntscmf/030919>

⁴⁹ We published CEPA’s presentation and written answers for information: <https://www.ofgem.gov.uk/publications-and-updates/nts-charging-methodology-forum-ntscmf-session-cepas-quantitative-analysis-11-february-2020>

Energy UK expressed concerns 'relating to the articulation of the status quo being modelled rather than a representation of the current arrangements'. We note that when modelling policy options, it is essential to compare the options against a counterfactual (in this case the status quo arrangements). It is important that the inputs and assumptions which are used to develop modelling of the policy options are consistent with the counterfactual wherever possible so that the two can be compared like-for-like. The purpose is to develop a consistent modelled counterfactual against which outcomes of the modelled options can be compared.

EP UK Investments said that the CEPA analysis begins in 2022 and so 'ignores the immediate impacts of the reforms'. As set out in the CEPA report, studying impacts in the period 2022/23 allows for consideration of near-term impacts after the market has had some time to adjust to the new tariff arrangements (to be introduced in gas year 2020/21).⁵⁰

Uniper disagreed with the modelling assumption that capacity bookings equal flows for users other than GDNs. ESB also questioned this assumption. Drax said that 'the economic assessment is not based on a like-for-like assessment but on a prediction of future flows and the assumption that there is perfect alignment between capacity bookings and flows'. We consider that this assumption of a modelled relationship between bookings and flows is the most appropriate in the context of a meshed network largely operating below capacity with expected declining demand, and product multipliers of 1.0. In combination, these conditions allow market participants to profile capacity bookings close to actual flows using short-term capacity products (eg daily and within day capacity products), thus minimising the costs associated with over-booking of capacity. An assumption was required that could apply to the range of entry and exit points under the status quo and under the modification options, as use of the NTS changes out to 2030. For points other than GDNs, there is an inherent incentive to book close to real time, both under the status quo and under the modelled options. In addition, as spare capacity is likely to remain on the NTS, we would expect the level of overbooking to reduce. Therefore, the most appropriate assumption in our view is that of bookings equal flows.

Uniper stated that 'excluding current (and future SO-based) costs, particularly in the context of short-haul has distorted the analysis'. EP UK Investments said that 'the risk of NTS bypass is understated in the analysis as the modelling excludes any consideration of SO/non-transmission service charges'. NGGT said that the 'cross-subsidy relates to the Transmission Services component. Where any of the 0678 alternatives additionally provide an alternative to the General Non-Transmission Services charges the overall cross subsidy across all charges may, as a result, be understated'.

The SO Commodity Charge and the proposed non-transmission services charges were not included in the modelling analysis carried out by CEPA. The modelling focused on the transmission services charges which are proposed to change under the UNC678 suite of modifications. Non-transmission charges are not proposed to change substantially under the UNC678 modifications, apart from re-naming.⁵¹

Users of the OCC product do not currently pay the SO Commodity Charge. Also, under the different UNC678 modifications that contain a NOC product, it is proposed that the NOC charge be paid instead of the standard transmission services capacity charge and the General Non-Transmission Services charges. Therefore, including the SO Commodity and

⁵⁰ We note that the choice of modelled years was discussed with the industry as part of the NTS CMF.

⁵¹ The distinction between Transmission Owner ("TO") and System Operator ("SO") charges is proposed to be replaced under all UNC678 modifications by "Transmission-services" and "Non-transmission services" charges, as required by TAR NC. Also, it is proposed that the existing SO commodity charge will be replaced by the 'General Non-Transmission Services Entry and Exit Charges', which are also proposed to be commodity-based (levied on flows). Users of the existing OCC tariff do not pay the current SO commodity charge. The UNC678 modifications that propose to remove the existing OCC without replacement (UNC678/A/C/E/F) would have the effect of removing this exemption. Also see Appendix to this decision and UNC678/A/B/C/D/E/F/G/H/I/J FMR (29 May 2019), pages 105-106: https://gasgov-mst-files.s3.eu-west-1.amazonaws.com/s3fs-public/ggf/book/2019-05/Part%20I%20of%20II%20Final%20Modification%20Report%200678%20v2.0_1.pdf

non-transmission charges in the scope of the model would have some impact on the uptake of the short-haul product and potentially on the estimated likelihood of bypass.

CEPA ran a sensitivity to estimate the impact that additional take-up would have on the TO and SO Commodity charges under the status quo (in p/kWh). Given that the status quo includes more generous short-haul discounts than any of the modification options, the impact is on average larger under the status quo than under the modification options. The reduction in revenue associated with greater take-up of the short-haul product would have a corresponding impact on commodity charges. The sensitivity indicates that when the TO entry and exit charge and the SO Commodity charge are considered together, the impact is an additional cross-subsidy to reflect the avoidance of the SO Commodity charge by short-haul users:

Changes in TO and SO Commodity tariffs based on SO Commodity Charge sensitivity

	SP 2022/23	SP 2026/27	SP 2030/31	TD 2022/23	TD 2026/27	TD 2030/31
Change in entry commodity tariff	0.0003	0.0003	0.0002	0.0004	0.0005	0.0005
Change in exit commodity tariff	-0.0005	-0.0006	-0.0004	-0.0008	-0.0007	-0.0007
Change in SO commodity tariff	0.0003	0.0004	0.0003	0.0005	0.0006	0.0006

We have considered the impacts of the SO Commodity and non-transmission charges on the take-up of the short-haul product and corresponding revenue recovery implications. We consider that these impacts do not change our preference for UNC678A or our assessment of the other UNC678 modifications and the current OCC product.

In relation to the likelihood of bypass, we note that there are other cost elements associated with NTS bypass which are not incorporated in the analysis (see §5.92. of our MTD). Altogether, we would expect considerations such as land use costs to reduce the potential gains from avoiding non-transmission services charges. We consider that the CEPA bypass analysis is hence likely to represent an overestimate of the actual likelihood of bypass.

SSE stated that the quantitative analysis 'by not including short-haul or interruptible capacity costs in the assessment of current costs the cost increase on gas fired generation will be larger than the calculated £530 million NPV'.

For the avoidance of doubt, these capacity costs are included in the quantitative analysis. The analysis included use of all available capacity products, eg annual, daily, interruptible, and short-haul products. It was assumed that each type of capacity product would be used in the same proportion at each entry/exit point as had been booked in the year 2017/18 (based on NGGT data). Regarding the short-haul product, the model determined whether an entry-exit combination would take up this product, based on whether it would make commercial sense for that route to do so in the modelling.

Gazprom stated that the removal of short-haul discounts 'will increase the cost of transporting gas to the GB network therefore the NBP spreads will need to widen, requiring a higher marginal price to signal flows to the GB market'. Centrica considered in relation to the quantitative analysis that 'there is an inherent assumption that the marginal supply will benefit from a NOC only sporadically and there is no benefit on the wholesale gas price'.

CEPA's modelling finds that, on average over the modelled period, the removal of short-haul discounts reduces the entry tariff of the marginal source of gas entry and consequently the GB gas price reduces slightly under all options. According to NGGT data, entry-exit combinations that use short-haul do so for a varying proportion of their gas flows with the remainder of flows making use of non-short-haul products. The proportion of flows using the short-haul product varies between approximately 1% and 99% for each route. CEPA's

modelling also suggests that most entry-exit combinations that use short-haul would only do so for some proportion of their gas flows. In addition, several entry-exit combinations do not make use of the short-haul product at all. Removing the short-haul product increases tariffs for those who would have used the product but decreases the tariff for non-short-haul users. Therefore, where non-short-haul users (or proportions of gas flows of short-haul users that do not use the short-haul product) set the gas price, this gas price will fall. We found that this is the dominant effect in the modelling.

Gazprom also said that 'the routing and costing of bypass options are overly simplistic, as the modelling cannot fully and accurately represent each individual case'. EP UK Investments also said that 'there are a range of bypass options available to offtakes which Ofgem may not have appreciated'. Drax said that 'the assessment of the likelihood of parties to disconnect from the transmission network has been constrained in several ways' and cites specific examples. NGGT noted in relation to the NOC analysis that it is reasonable to make simplifying assumptions. A respondent who requested that their response remain confidential said that the NOC analysis clearly brought out the risk of providing unjustified subsidies to customers that had no realistic likelihood of building a pipeline that bypasses the NTS.

We have previously noted that a number of cost areas (eg use of land, legal costs, or risks associated with supply or network constraints over the gas pipeline) are very difficult to establish and so the results of the extent of possible bypass are indicative and represent an over-estimate. Furthermore, in our MTD, we said that we have received confidential representations from several stakeholders that indicate the actual likelihood of bypass is likely to be highly site-specific (see §5.92. of our MTD). We confirm that this remains our view.

Centrica said the estimated consumer welfare impacts under UNC678B (NOC Methodology 1) compared to the status quo were significant. We note that NOC Methodology 1 results in the lowest consumer benefits among the modelled options. Furthermore, as we noted in our MTD (§7.4.), NOC Methodology 1 is unacceptable on the basis that the NOC offers discounts to a large number of routes, including routes in excess of 150km. As such, it fails to deliver compliance with the legal requirement of avoiding undue cross-subsidies, as it would be too widely available to routes that do not pose a credible risk of bypass and hence represents an undue cross-subsidy. Our impact analysis also shows that there are no countervailing benefits from this modification to off-set the serious disadvantages.

EP UK said that our assessment in our MTD appears to be based on a misunderstanding of NOC Methodology 2 and provided technical comments regarding its application. In our Draft IA we stated that our initial analysis of NOC Methodology 2 suggested that a design flaw existed. We stated that: *"...as the NOC discount is calculated on the basis that users flow gas equal to their Maximum NTS Exit Point Offtake Rate ("MNEPOR") – i.e. load factors are effectively equal to 100%. This assumption leads to an overly generous NOC design, as in practice, we would expect actual load factors to be below 100% and in some cases well below that figure."*

On reflection, and considering EP UK's response, we agree with EP UK that *in the presence of the minimum annual charge* using a 100% load factor at the MNEPOR both for the calculation of the OCC rate (p/kWh) constants and the daily pipeline cost (p/day) is an appropriate methodology for capturing the cost of a representative bypass pipeline.

In relation to CEPA's modelling of NOC Methodology 2 for the purpose of deriving tariffs and considering impacts on consumers, the minimum annual charge or 'Annual NTS Optional Capacity Fee' was considered exactly as outlined in the relevant modification proposals and EP UK's response. However, in its separate analysis of the likelihood of bypass, CEPA did not assume a load factor of 100%. Instead, CEPA used a modelled load factor that reflects average daily bookings or flows. All else equal, this results in the same annual charge as that defined under NOC Methodology 2, but applying a zero annual fee.

An assumption of actual flows (i.e. the modelled load factor) instead of a 100% load factor was also applied in relation to the use of a bypass pipeline by a network user if built. In this context, we continue to consider our assumption of actual flows rather than flowing at 100% of pipeline capacity to be more appropriate.

CRU referred to the impacts of the charging reform on Ireland and said that the removal of the OCC has the potential to significantly increase the cost of transporting gas from GB to Ireland. CRU requested certain clarifications regarding our quantitative analysis. CEPA's modelling suggests that a large proportion of bookings at the Moffat exit point under the status quo would utilise the OCC.⁵² This is consistent with gas flows actually observed at Moffat exit point. Therefore, the removal of the OCC has the potential to lead to higher exit tariffs at the Moffat exit point but, under the CWD and the PS, we estimate lower NBP prices which would also flow through to gas consumers in Ireland, Northern Ireland and the Isle of Man (see our Final Impact Assessment). Therefore, impacts on gas consumers in Ireland, Northern Ireland and the Isle of Man will depend on the balance of these two effects and the extent to which they are passed through into gas prices for those consumers.

We note that in its final analytical report that we publish today, CEPA has presented tariff impacts of options relative to the status quo at Moffat IP. This addresses a point raised by certain respondents during our MTD consultation. Our Final Impact Assessment assesses the impacts of the tariff reform on IPs and cross-border gas flows.

CEPA has estimated that in 2030/31 (under Two Degrees), including the proportion of flows using the short-haul product under the status quo, the total weighted average tariff for Moffat (ie including the Moffat exit capacity tariff) would be 0.0129 p/kWh(/d). This compares with an exit capacity tariff of 0.0174 p/kWh/d under CWD, and 0.0220 p/kWh/d under PS. However, under TD 2030/31, modelling shows that the average NBP price would reduce by 0.036 to 0.038p/kWh under the CWD and PS options respectively.

EP UK Investments said that the analysis of the electricity market revenue for power stations does not include modelling of the GB electricity capacity market. ESB expresses similar concerns. Both our Final Impact Assessment and the CEPA report have noted interactions with the GB electricity capacity market. We agree that some of the benefits to electricity consumers may be impacted by the extent to which electricity generators are able to recover any lost revenues from the capacity market. However, we note that the capacity market is not designed as a mechanism to allow for recovery of lost profits. The extent to which electricity generators will recover lost revenues from the wholesale market depend on the extent of competition in the capacity market.

Assessment against the applicable UNC objectives

In this section, we assess the modifications against the applicable UNC objectives: the UNC Relevant Code Objectives and UNC Charging Methodology Relevant Objectives ("**CMRO**"). As there are similarities between the two sets of objectives we assess them in tandem.

We consider that both UNC678 and UNC678A will better facilitate UNC relevant methodology objectives (a), (b), (c), (d), (e) and (g). They will also better facilitate UNC CMRO (a), (aa), (b), (c), and (e). However, we consider that UNC678A better facilitates UNC code objective (a), (b) and UNC CMRO (b) relative to UNC678. UNC678 and UNC678A will have a neutral effect on UNC relevant methodology objective (f). Finally, we consider that CMRO Objective (d) is not relevant to the modifications proposals.

The remaining modifications (UNC678B/C/D/E/F/G/H/I/J) contain elements that are not compliant with the legislative framework and therefore cannot be approved by us as they do not better facilitate UNC code objective (g) and UNC CMRO (e).

⁵² See CEPA's UNC678 Analytical Support (§3.5.2.), published as a subsidiary document to our MTD.

Objective (a) Efficient and economic operation of the pipe-line system and CMRO Objective (b) that, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business

We consider that all modification options will better facilitate UNC Relevant Code Objective (a) and UNC CMRO (b) relative to the status quo. The current LRMC methodology is no longer sending efficient signals for use of the network. In our MTD (see §6.3.), we said that both the PS and CWD methodologies are more suitable for recovery of cost in a meshed network largely operating below capacity with expected declining demand than the current methodology.

As part of our consultation, we asked for respondents' views on whether they agree that PS is a more appropriate RPM in light of the circumstances of the GB network (Question 1). In responding to this question, we asked respondents to address the following points:

- (i) in a meshed network with spare capacity and declining usage, a fair approach to cost recovery would be based on the level of access to the system irrespective of individual location; and
- (ii) CWD may introduce signals for use of the network which discourage flows at more distant entry and exit points, without improving network efficiency.

We note that eleven respondents to our consultation were in favour of a PS RPM, whereas eight supported the CWD RPM.

We consider that the PS RPM is marginally more effective in facilitating efficient operation of the pipeline system than CWD given that the PS methodology does not introduce signals related to distance. We think that distance-based signals are less appropriate given the gas transmission network is a meshed network largely operating below capacity with expected declining demand and the primary function of these charges as cost recovery. The CWD methodology may send inappropriate signals for use of the system at system entry and exit points which are more remote.

We consider that where tariff arrangements lead to bypass of the NTS, this would not represent an efficient outcome. In this context, we note that the locational element of the CWD methodology may help to reflect those entry and exit points which are separated by a smaller distance thus deterring bypass; however, our quantitative assessment suggests this is a marginal effect. CEPA's analysis demonstrates a slightly lower rate of take-up of the NOC and of NTS bypass under the CWD than PS methodology, but the real difference in the risk of bypass may in fact be low or non-existent.

In general, we do not consider that the additional revenue recovery requirements that would result from the introduction of one of the proposed NOC methodologies would support efficient use of the NTS. CEPA's analysis suggested that the NOC methodologies are not targeted effectively at those routes that pose a credible risk of bypass. While the Wheeling methodology does not lead to inefficient provision of NOC discounts to routes that do not present a bypass risk, CEPA identify at least one additional route that may present a credible bypass risk. We are also not satisfied that the level of discount to those that are eligible is appropriate.

However, to the extent that a NOC is well targeted at network users who present a credible risk of bypass and provides a proportionate discount, we believe that the benefits for network efficiency could outweigh the disbenefits.

Objective (b) Coordinated, economic and efficient operation of combined pipeline system

CEPA estimated the tariffs at GDN exit points that would result from the modification options. This showed that dispersion of tariffs would generally decrease under both PS and CWD tariff options relative to the status quo. Some dispersion would remain under the

CWD methodology but under the PS methodology, all GDN exit points would face the same exit tariff.

As stated above, in the context of a meshed network largely operating below capacity with expected declining demand and with the primary purpose of cost recovery, we do not consider the distance element of the CWD RPM to provide an appropriate signal. Given the reduction in dispersion of GDN exit tariffs, we consider that all options better facilitate the relevant objective relative to the status quo. We consider that the PS RPM better facilitates the relevant objective in comparison to the CWD.

Objective (c) Efficient discharge of the licensees' obligations and CMRO Objective (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

In the context of this decision, the licensee has an obligation to achieve certain objectives including cost reflectivity and non-discrimination.

As we set out in our MTD, we believe that all options would better facilitate the relevant objective in relation to cost reflectivity relative to the status quo. They would achieve this by replacing the LRMC methodology with one which is more suited to cost recovery for a meshed network largely operating below capacity with expected declining demand.

In general, we do not consider discounts to the RPM to be appropriate except where they can be properly justified based on the costs which network users introduce or save in relation to the NTS or where they can be justified based on other relevant objectives.

The proposed 'capacity surrender rule' and the exclusion of storage from the revenue recovery charge would introduce a dual regime without due justification. We do not consider these arrangements are justified or appropriate and hence do not believe that these attributes of the proposed modifications would better facilitate the relevant objective.

Unless duly justified we consider that any form of discount on the reference price would be discriminatory. This applies to storage discounts, the Ireland security discount, and the NOC methodologies that have been put forward.

In the case of storage discounts above 50%, we recognise that arguments in favour of discounts above 50% are not without merit (§7.21. of our MTD). In the case of the NOC, preventing inefficient bypass of the NTS, in a targeted, proportionate and compliant manner is, in our view, desirable. Ofgem is committed to working with the industry and the Joint Office of Gas Transporters to facilitate the development and, depending on the assessment and approval process, timely consideration and where appropriate implementation of modification(s) that seeks to address inefficient bypass of the NTS.

In the case of the Ireland security discount, we believe that this would discriminate in favour of consumers in Ireland, Northern Ireland and the Isle of Man at the expense of GB consumers. We also consider the fact that the discount is only available to entry flows from beach terminals to be discriminatory.

For these reasons, we consider that UNC678 and UNC678A will better facilitate UNC code objective (c) and UNC CMRO (a).

Objective (d) Securing of effective competition and CMRO Objective (c) that, so far as is consistent with sub-paragraphs (a) and (b), compliance with the charging methodology facilitates effective competition between gas shippers and between gas suppliers, and CMRO Objective (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

In general, competition is best facilitated by tariff arrangements which are cost-reflective and non-discriminatory. However, in a in a meshed network largely operating below capacity with expected declining demand, the main consideration is the appropriate and fair recovery of costs that is not likely to lead to inefficient behaviour and distortions. For the same reasons as given above, we consider that all modification proposals would better reflect the relevant objectives but that those options which introduce some form of dual regime other than the protection of Existing Contracts mandated under Article 35 TAR NC (i.e. the modifications that propose unjustified exclusions from RRCs (UNC678C/E/F/G/H) or the capacity surrender rule (UNC678F)) or which introduce inappropriately targeted discounts to reference prices (ie UNC678I which proposes an Ireland Security Discount) or the modifications that contain a NOC element (UNC678B/D/G/H/I/J) would reflect the relevant objective to a lesser degree than those two options (UNC678/A) which do not include such features.

CMRO Objective (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)

We do not consider CMRO Objective (d) relevant to any of the modification proposals.

Objective (e) Achievement of domestic security of supply standards

In general, we consider that cost-reflective and non-discriminatory tariff arrangements support security of supply. In line with the reasons given above, we believe that all proposed modifications would better facilitate the relevant objective than the status quo. However, those options which include inappropriately targeted discounts to reference prices would facilitate the relevant objective to a lesser extent.

We consider that, in theory, gas storage facilities may bring price stability benefits in times of system stress such as helping to dampen price spikes while reducing price volatility more generally. CEPA's analysis suggested that the change to tariff arrangements could introduce the potential for erosion of storage revenues which could affect closure decisions. We therefore consider that the inclusion of a storage discount of greater than 50% could help to better reflect this relevant objective, but note that none of the modifications with a higher discount were otherwise compliant with TAR NC.

Objective (f) Promotion of efficiency in the implementation and administration of the code

We consider the impacts of the proposed modifications on the efficiency of implementation and administration of the code to be small in comparison to the wider impacts set out in this decision.

In respect of the location of the FCC methodology, we believe that placing the FCC methodology within the UNC has advantages and disadvantages in respect of code administration. On balance, we consider that the merits of maintaining a consistent industry change process within the UNC outweigh the risk of this resulting in multiple change requirements.

We therefore consider that those modification proposals which include the FCC methodology within the UNC would better facilitate the relevant objective in comparison to those which do not. We also note that FCC governance is a relatively discrete, and minor, part of the 11 modifications. Overall, we consider that all modification proposals have a neutral impact on objective (f).

Objective (g) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Cooperation of Energy Regulators and CMRO Objective (e) compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Cooperation of Energy Regulators

We have concluded that UNC678 and UNC678A are compliant with the requirements of TAR NC and the Gas Regulation and therefore 'better facilitate' UNC Objective (g) and CMRO Objective (e). Bearing in mind what we have said above on compliance with the legislative framework and further to what we say immediately below, all the other modifications contain elements that do not comply with the requirements of TAR NC and / or the Gas Regulation and therefore cannot be approved by us.

UNC678B fails to deliver compliance with TAR NC and the Gas Regulation, as it contains a NOC which would give rise to an "undue" cross-subsidy (NOC Methodology 1). Specifically, the proposed NOC would be available to routes that do not pose a credible risk of bypass.

UNC678C does not comply with Article 35 TAR NC. This modification would exempt storage contracts (new and existing, with the exception of storage booked for own-use purposes) from the application of RRCs. All other Existing Contracts would be subject to RRCs.

UNC678D (NOC Methodology 2) would provide an undue cross-subsidy to a number of network users for whom our analysis suggests do not present a credible risk of network bypass.

UNC678E/F do not comply with Article 35 TAR NC. These modifications would exempt storage contracts (new and existing) from the application of RRCs. All other Existing Contracts would be subject to RRCs.

UNC678G/H do not comply with Article 35 TAR NC. These modifications would exempt Existing Contracts at storage facilities from the application of RRCs. All other Existing Contracts would be subject to RRCs. In addition, UNC678G/H (NOC Methodology 2) would provide an undue cross-subsidy to a number of network users for whom our analysis suggests do not present a credible risk of network bypass.

UNC678I proposes an enduring Ireland Security Discount of 95% for qualifying quantities at Moffat Interconnection Point. This discount does not satisfy the requirements of Article 9(2) of TAR NC. Also, the discount is discriminatory and gives rise to an undue cross subsidy. Furthermore, the proposed Wheeling charge gives rise to an undue cross subsidy and is discriminatory.

UNC678J (NOC Methodology 2) would provide an undue cross-subsidy to a number of network users for whom our analysis suggests do not present a credible risk of network bypass.

Articles 27(4) and 28(1) TAR NC decision

Article 27(4) TAR NC states: 'Within five months following the end of the final consultation, the national regulatory authority, acting in accordance with Article 41(6)(a) of Directive 2009/73/EC, shall take and publish a motivated decision on all items set out in Article 26(1). Upon publication, the national regulatory authority shall send to ACER and the Commission its decision'.

Article 28(1) TAR NC states that: 'After the end of the consultation a motivated decision shall be taken in accordance with Article 41(6)(a) of Directive 2009/73/EC on the aspects referred to in points (a) to (c) of this paragraph. Each national regulatory authority shall consider the positions of national regulatory authorities of directly connected Member States'.

Pursuant to these legal provisions, **our “motivated” (final) decision is to approve UNC678A (PS Methodology)**. We note that our MTD to approve UNC678A, refers to all items set out in Article 26(1) and Article 28(1)(a) to (c) of TAR NC, as required by the abovementioned legal provisions.⁵³ We do not repeat these matters here.

Implementation date

Informed by the legal requirement to implement the changes mandated by TAR NC, in our MTD we proposed that implementation should take place on 1 October 2020, which coincides with the start of the gas year.

Taking into account the responses to the consultation, and more recently our consideration of the COVID-19 impacts, we have decided that implementation should take place on 1 October 2020.

In our consultation, we asked stakeholders for their views on our MTD proposed implementation date. Of those stakeholders who responded to this question, 12 supported our MTD proposed date, eight expressed a preference for October 2021 implementation and five expressed a preference for other dates.

Some respondents indicated that consideration and implementation of alternative short haul arrangements should be undertaken at the same time as implementing UNC678, to avoid the complete removal of short-haul tariffs followed by the possible reinstatement of revised short-haul tariffs. We have carefully considered this view and note that we are legally required to decide whether the possible UNC678 modifications are better than the status quo, and we are not permitted to decide whether potential future changes which have not been submitted to us for a decision may be better than the modifications in front of us for decision. We are willing to support the timely consideration of any subsequent modifications put forward for decision, with a view to implement any improved arrangements at the earliest opportunity.

After our consultation closed we received further representations from some stakeholders regarding their preferred implementation date in the context of the COVID-19 pandemic and its impacts. Our consideration of these representations and of the impacts of COVID-19 on this decision is set out below.

Consideration of COVID-19 Impacts

COVID-19 presents a serious challenge for the energy industry to tackle on behalf of the homes and businesses that depend on the sector for gas and electricity. The ‘lock down’ of non-essential sectors of the economy, the re-purposing of some sites, and changes in consumer behaviour means energy consumption is varying from normal seasonal patterns. This is having a consequential impact throughout the energy supply chain.

Our consultation on our MTD closed on 24 February 2020 before the full impact of COVID-19 in GB was known. In light of this, and bearing in mind the scale of the changes being made through these reforms, we have sought to assess the likely impacts and potential risks of proceeding with an implementation date of 2020 for those who are most likely to be affected by the changes. This has included liaising with gas market participants and consumers.

The information we gathered falls into four broad categories, namely;

- a) adverse financial impacts in the context of COVID-19, including on Industrial and Commercial gas consumers;
- b) potential risk to production of materials used in the COVID-19 response;
- c) impacts on the gas market, including shippers and suppliers, and;

⁵³ See Chapters 3 and 7, and Appendices 4-7 of our MTD. In these sections, we also refer to the UNC678A FMR (15 May 2019), available at: <https://www.gasgovernance.co.uk/0678> which sets out the proposed transmission charging reforms.

d) administrative burdens on stakeholders of implementing this change.

Using these categories, we set out below a summary of the information received and our overall assessment.

Adverse financial impacts in the context of COVID-19, including on Industrial and Commercial consumers

We have received representations arguing that implementation should be delayed to 2021 (or later) because of the combination of increased charges from the removal of the short-haul discount in the two compliant modifications (UNC678 and UNC678A) and, in the view of some stakeholders, the consequent reduced demand for their products associated with the COVID-19 pandemic which will cause significant financial stress for these firms. While there has been a 61% year-on-year decline in average day-ahead wholesale gas prices for April 2020 (prices from ICIS Heren), some Industrial and Commercial consumers stated that they are less able to benefit from these reductions because of existing hedging and procurement arrangements.

We have also received representations that the removal of the current short-haul tariffs and the cross subsidisation that takes place would be in the interests of many Industrial and Commercial consumers, and that the changes should come into force in 2020 and not be delayed to 2021.

Potential risk to production of materials used in the COVID-19 response

We received a number of responses from non-domestic consumers who are involved in the supply chain for goods which are being used in the COVID-19 response. They highlighted the likely adverse impacts of implementation in October 2020 including to the supply chain for goods being used in the COVID-19 response. These impacts included the likelihood of their businesses being put into a loss making situation and also the possibility of redirecting resources with a view to building a pipeline to bypass the NTS.

Impacts on the gas market, including on shippers and suppliers

We have received some information from stakeholders in the gas sector referring to financial risks to shippers, and via shippers to suppliers, in relation to implementation this year. This is on the basis that cash-flow issues faced by some Industrial and Commercial consumers, arising from an increase in tariffs, could move up the supply chain to gas shippers and then to suppliers. There have been some indications that some gas supplier and shipper licensees have suffered losses because of low demand, credit losses, and faced margin calls. We are aware that some gas suppliers have said that they have made losses as they have been forced to sell long market positions at a loss.

Administrative burdens on stakeholders

Some stakeholders have indicated that they have less resources available to manage the necessary administrative changes if this change is implemented in October this year. This is because some have told us they are facing reduced staff availability (including because of social distancing requirements) and increased resource requirements to manage the current and future impacts of COVID-19. Some stakeholders have said this issue is more serious among small companies as they employ fewer staff to deal with regulatory and administrative matters.

On the other hand, some stakeholders have suggested that there are no significant administrative burdens caused by implementing this decision in the current situation, and that in fact delaying implementation will add to the uncertainty caused by the time it has taken to reform the gas charging regime. On a similar note, information we have gathered suggests that delaying implementation to 2021 may lead to some licensees needing to remodel prices, as they have been modelled based on the proposed implementation date of 2020 set out in our MTD.

Our assessment on the appropriate date for implementation of UNC678A

We have considered the views of stakeholders in relation to the implementation date of this decision and whether these views have changed since the consultation closed and the start of the COVID-19 lockdown period. Views have not changed in terms of the implementation date that respondents support.

In general terms the views expressed by those affected by the changes seem to align along the lines that those who stand to lose by these changes would prefer that they were delayed to 2021. However, those who stand to benefit from these changes would like them to be implemented this year. That said we have taken account of all the views expressed to us in an objective manner and have aimed to understand and verify the various arguments in the time available. In doing so we are very mindful of the impact of COVID-19 and the uncertainty this has created both in the gas sector and in the wider economy. We have also noted that concerns about the impact of implementing the decision this year are not universal and that some parts of the gas market and some consumers have indicated that they are well placed to handle and respond to the changes. In this respect it is worth noting that every year gas tariffs change and that adjustments to address those changes need to be made by those affected.

Having carefully considered the information that we have gathered and the option of delaying implementation to 2021 we have reached the view that it is appropriate to proceed with implementation in 2020. This is because, firstly, we consider that it is in the overall interests of consumers that the reforms are implemented sooner rather than later. In this respect, overall, implementing the reforms this year, provides greater benefits to consumers than delaying implementation of the reforms to next year. This includes both domestic and non-domestic gas and electricity consumers. Secondly, we have a statutory duty to implement EU law and in this instance the European Network Code on gas network tariffs, should have been fully effective by 31st May 2019.

We recognise that many homes and businesses are facing a difficult and uncertain period with the global COVID-19 pandemic, with mounting financial pressures on many households, public bodies, small businesses and large consumers. Taking the interests of all gas consumers in the round, we have concluded that consumers are best served by the proposed implementation of UNC678A in October 2020.

Decision notice

In accordance with Standard Special Condition A11 of the Gas Transporters licence, the Authority hereby directs that modification proposal UNC678A: *'Amendments to Gas Charging Regime (Postage Stamp)'* be made.

Frances Warburton
Director, Energy System Transition

Signed on behalf of the Authority and authorised for that purpose

Appendix: Additional information on non-transmission services charges (Article 4(4) TAR NC)

UNC678A envisages that the non-transmission services revenue will be recovered through the following charges:

- General Non-Transmission Services Entry and Exit Charges;
- St Fergus Compression Charges;
- NTS Meter Maintenance Charge;
- DN Pensions Deficit Charges;
- Shared Supply Meter Point Administration Charges; and
- Interconnection Point Allocation Charges.

Article 27(2)(b)(3) of TAR NC states that ACER shall analyse whether the criteria for setting non-transmission tariffs as set out in Article 4(4) are met. In its report, ACER considered that our MTD does not provide sufficient information to identify the beneficiaries of these non-transmission services and to ensure that these beneficiaries are charged the corresponding costs, as provided for in Article 4(4) of the NC TAR. Therefore, ACER recommended that, in our final decision, we provide information allowing to check that non-transmission revenues are indeed charged to the beneficiaries of the corresponding services (§75 of ACER's report).

We note that the calculation and application of all the non-transmission services charges listed above are largely similar to those applicable under the current methodology. We also note that the calculation and application of the proposed non-transmission services charges is set out in detail in the proposed legal text to amend UNC Section Y.⁵⁴

The next paragraphs provide complementary information as per ACER's recommendation. We consider that the non-transmission services charges are charged to the beneficiaries of the corresponding non-transmission service thereby minimising cross-subsidisation between network users.

General Non-Transmission Services Entry and Exit Charges

The General Non-Transmission Services Charge is a charge in respect of system operation of the NTS (with the aim of NGGT recovering the Allowed Non-Transmission Services Revenue which is not recovered by the specific Non-Transmission Services Charges set out in the next paragraphs).

This charge is commodity-based and is payable in respect of entry and exit points. It is proposed that the charge be applied to all flows excluding storage flows (unless the gas is flowed as "own use" gas at the storage point).

The General Non-Transmission Services Charge for a Gas Year (GNTSC_y, to be expressed in p/kWh) is determined as follows:

$$\text{GNTSC}_y = \text{NANTSR}_y / \text{FANQ}_y$$

where, for Gas Year y:

NANTSR_y is Net Allowed Non-Transmission Services Revenue⁵⁵

⁵⁴ Available at: <https://www.gasgovernance.co.uk/0678/text>

⁵⁵ Net Allowed Non-Transmission Services Revenue is the Allowed Non-Transmission Services Revenue minus the revenue to be recovered with the following non-transmission charges: St Fergus Compression Charges; NTS Meter Maintenance Charge; DN Pensions Deficit Charges; Shared Supply Meter Point Administration Charges; Interconnection Point Allocation Charges.

FANQy

is Forecast Aggregate NTS Quantity⁵⁶

St Fergus Compression Charges

The St Fergus Compression Charge is a charge in respect of the delivery of gas to the NTS at the NTS System Entry Point ("**SFCC System Entry Point**") for the North Sea Midstream Partners sub-terminal at St Fergus (at which gas enters the NTS at a pressure lower than standard requirements). The charge seeks to recover the additional variable costs that will be incurred by NGGT in respect of compression of gas as a result of the delivery of gas at the SFCC System Entry Point.

The St Fergus Compression Charge (SFCCy, to be expressed in p/kWh) for a Gas Year is determined as follows:

$$\text{SFCCy} = \text{ECy} / \text{EQy}$$

where:

ECy is the aggregate amount, as estimated by NGGT, of St Fergus Compression Costs for the Gas Year; and

EQy is the aggregate quantity, as estimated by NGGT, of gas that will be delivered to the NTS at the SFCC System Entry Point in the Gas Year

The costs of compression recovered via the St Fergus Compression Charge are directly attributable to certain users and are therefore not recovered from all users but only from users entering gas at the SFCC System Entry Point.

NTS Meter Maintenance Charge

The NTS Meter Maintenance Charge is a charge payable by the Registered User of a NTS Supply Meter Point at which of NGNTS Supply Meter Installation⁵⁷ is installed.

The NTS Meter Maintenance Charge (in £/year) for a Gas Year is determined by:

- (i) determining the aggregate cost, as estimated by NGGT, that NGGT will incur in the Gas Year in maintaining all NGNTS Supply Meter Installations; and
- (ii) apportioning such estimated aggregate cost between all NGNTS Supply Meter Installations, on an equal basis or such other basis as National Grid NTS determines to be appropriate.

DN Pensions Deficit Charges

The DN Pension Deficit Charge is a charge, payable by a Distribution Network ("**DN**") Operator to NGGT, to allow NGGT to recover that part of the allowance, in the Maximum NTS Transportation Owner Revenue, for the part-funding of the deficit in the NGUK Pension Scheme, that relates to pension deficit costs associated with former employees of that DN Operator.

The DN Pension Deficit Charge is determined (in £/year) for a Gas Year and for each DN Operator:

- (i) so as to reflect our decision in 2007 to allow the recovery of such pension deficit costs by such a charge to DN Operators;

⁵⁶ Forecast Aggregate NTS Quantity is the aggregate quantity of gas which NGGT estimates will be delivered by Users to the NTS at all entry/exit points in the Gas Year, excluding storage flows (unless the gas is flowed as "own use" gas at the storage point).

⁵⁷ A "NGNTS Supply Meter Installation" is a Supply Meter Installation (including telemetry or datalogger) owned by NGGT and installed at a NTS Supply Meter Point.

(ii) by setting a fixed charge for each consecutive three-year period with an annual inflation adjustment within the three-year period; and

(iii) with a true-up adjustment (reflecting differences between actual costs and the fixed charge) following each such three-year period.

The DN Pension Deficit Charge is not payable by a DN Operator which (with effect from 1 April 2017) directly bears the funding costs of the abovementioned deficit (but without prejudice to charges in respect of the true-up adjustment relating to prior periods).

Shared Supply Meter Point Administration Charges

Shared Supply Meter Point Administration Charges are charges payable by each Registered User of a Shared Supply Meter Point in respect of the implementation of the provisions of the UNC relating to Shared Supply Meter Points. They comprise:

- a charge for establishing a Supply Meter Point as a Shared Supply Meter Point;
- a charge for a change in the Sharing Registered Users of a Shared Supply Meter Point; and
- a daily charge for the implementation of the allocation rules⁵⁸.

The Shared Supply Meter Point Administration Charge is determined (in £ per User, or £ per Supply Meter Point per User per Day, as applicable) for a Gas Year based on the amount of the charges expected to be payable by NGGT to the Central Data Services Provider ("CDSP") under the Data Services Contract ("DSC").

Interconnection Point Allocation Charges

The Interconnection Point Allocation Charges are charges (comprising an initial 'set-up' charge for a User, and ongoing charges) payable by Users in respect of the implementation of the provisions of the European Interconnection Document ("EID") Section D⁵⁹ in respect of allocation at Interconnection Points.

The Interconnection Point Allocation Charge is determined (in £ per User, or £ per User per Interconnection Point per Day, as applicable) for a Gas Year based on the amount of the charges expected to be payable by NGGT to the CDSP under the DSC.

⁵⁸ Under TPD Section G1.7 of the UNC.

⁵⁹ Available at: <https://www.gasgovernance.co.uk/EID>