



Modification proposal:	Uniform Network Code (UNC) 0356/0356(A): Demand Data for the NTS Exit (Flat) Capacity Charging Methodology (UNC 0356 and 0356(A))		
Decision:	The Authority ¹ directs that UNC 0356 be made ²		
Target audience:	The UNC Panel, Parties to the UNC and other interested parties		
Date of publication:	12 March 2012	Implementation Date:	To be confirmed by the Joint Office

Background to the modification proposal

National Grid Gas (NGG) is the System Operator (SO) and Transmission Owner (TO) of the GB National Transmission System (NTS) for gas transportation. To recover its regulated allowed revenue in respect of these activities, it levies use of system charges on NTS users. To calculate NTS Exit (Flat) capacity charges ("exit charges") NGG uses a model known as the Transportation Model.

The Transportation Model includes assumptions about the supply and demand for gas on the NTS. To generate charges, an aggregate system supply and demand balance is necessary. Supply and demand data for calculating exit charges are currently derived from the following sources -

- Demand is assumed to be the "obligated level"³ of NTS Exit (Flat) Capacity except at bi-directional sites with physical entry capability which are assumed to have a zero demand flow.
- The supply assumption is derived from supply and demand data set out in the current version of the Ten Year Statement (TYS).⁴

In May 2010 NGG indicated that, on the basis of its then current forecasts, a supply and demand modelling balance might not be possible for gas years 2012/13 onwards. Following publication of its December 2010 TYS, it confirmed that the level of forecast supply would be lower than the aggregate obligated demand level for gas years 2012/13 and 2013/14, and that the Transportation Model was unable to generate indicative exit charges for those years⁵.

¹ The terms 'the Authority', 'Ofgem' and 'we' are used interchangeably in this document. Ofgem is the Office of the Gas and Electricity Markets Authority.

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

³ NGG is obliged under licence to make available baseline levels of NTS Exit (Flat) Capacity. The "obligated level" is equivalent to the baseline level plus any incremental capacity. Incremental capacity is new capacity booked by NTS users in excess of baseline.

⁴ A copy of the Ten Year Statement can be found on National Grid Gas's website: www.nationalgrid.com/uk/gas

⁵ NGG considered that the modelling imbalance was the result of the combined effect of reduced UK Continental Shelf gas supply forecasts from the St Fergus entry point, and increases in obligated NTS exit capacity levels at specific NTS exit points, associated with the implementation of the reformed NTS exit capacity arrangements from 1 October 2012. In January 2009 the Authority directed implementation of UNC0195AV 'Introduction of Enduring NTS Exit Capacity Arrangements'. A copy of this decision is available at the following location <http://www.gasgovernance.co.uk/0195>

The modification proposals

In January 2011 a UNC workgroup was established to consider alternative options for establishing a supply and demand balance within the Transportation Model. This resulted in the development of the change proposal, UNC 0356, and its alternative, UNC 0356A. Both proposals propose to amend the source of demand data used within the Transportation Model to generate exit charges: UNC 0356 proposes to use NGG's 1 in 20 peak day demand forecast derived from the TYS⁶; UNC 0356A proposes to use the booked⁷ capacity amount at each NTS exit point⁸. Both proposals reduce the aggregate amount of modelled demand used in the Transportation Model to a level which achieves a supply and demand balance and allows final and indicative exit charges to be set for 2012/13.

UNC Panel⁹ recommendation

The UNC Panel met on 19 January 2012 to vote on whether or not to recommend the implementation of UNC 0356 and 0356(A). Nine votes were cast in favour of implementing both alternatives with one voting member abstaining. Therefore, the Panel determined to recommend the implementation of UNC modification proposal 0356 and 0356A.

Members then considered which of the two proposals would best facilitate the achievement of the relevant objectives. Five votes were cast in favour of UNC 0356 better facilitating the relevant objectives and two votes were cast in favour of UNC 0356(A) better facilitating the relevant objectives. Therefore, the Panel determined that, in its opinion, implementation of UNC 0356 would be expected to better facilitate the relevant objectives than implementation of UNC 0356A.

The Authority's decision

We have considered the issues raised by the modification proposals and the Final Modification Report (FMR) dated 6 February 2012. We have considered and taken into account the responses to the Joint Office's consultation on the modification proposals which are attached to the FMR¹⁰. We have concluded that:

- 1. implementation of modification proposal UNC 0356 will better facilitate the achievement of the relevant objectives of the UNC¹¹; and**
- 2. directing that modification UNC 0356 be made is consistent with the Authority's principal objective and statutory duties¹².**

Reasons for the Authority's decision

We have considered both modification proposals against the relevant charging methodology objectives under Standard Special Condition A5(5) of the Gas Transporter Licence in reaching our decision.

⁶ For bi-directional sites with physical entry capability the forecast demand is assumed to be zero. These sites are NTS storage sites, the Interconnector UK (IUK); and the Balgzand to Bacton Line (BBL) interconnectors.

⁷ The booked capacity amount will be the amount of NTS Enduring Annual Exit Capacity plus any NTS Annual exit Capacity booked for the gas year in which charges are being set.

⁸ Under 356A demand for bi-directional sites with physical entry capability will be set to zero.

⁹ The UNC Panel is established and constituted pursuant to and in accordance with the UNC Modification Rules

¹⁰ UNC modification proposals, modification reports and representations can be viewed on the Joint Office of Gas Transporters website at www.gasgovernance.com

¹¹ As set out in Standard Special Condition A5(5) of the Gas Transporters Licence, see:

<http://epr.ofgem.gov.uk/index.php?pk=folder590301>

¹²The Authority's statutory duties are wider than matters which the Panel must take into consideration and are detailed mainly in the Gas Act 1986.

Standard Special Condition (SSC) A5 paragraph 5 (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 our view both alternatives better meet the relevant objective than the current arrangements. NGG must under its licence make obligated levels of capacity available for sale at each exit point on the NTS. Obligated capacity represents the maximum level of capacity that NGG may have to support at any one exit point. However, because NGG knows that NTS users will not flow gas from the system at obligated capacity levels at all exit points simultaneously, it does not have to build the NTS to support this level of gas flow. In our view, the more the demand data set used for the Transportation Model reflect likely gas flows on the system, the more they will reflect the costs incurred by NGG in providing the system.

Of the two alternatives, we consider that UNC 0356 is more cost reflective than 0356A. The information made available to us¹³ by NGG about the demand data used under both alternatives, shows that for a majority of NTS exit points the difference between the alternatives is less than 10%. However, at an aggregate level, the 1 in 20 peak day demand forecast is less than booked capacity, and at an individual exit point level, booked capacity levels exceed 1 in 20 peak day demand forecasts at many more exit points than vice versa.¹⁴

In its response to the consultation, NGG indicated that capacity bookings are a major driver of its 1 in 20 peak day demand forecast, but they are not its only determinant; they will take other factors into account, such as information from its planning process about probable gas flows¹⁵. An example of this can be seen at the Moffat interconnector. At this exit point capacity bookings in gas year 2012/13 significantly exceed the 1 in 20 peak day demand forecast. In this instance, NGG has taken account of factors in addition to booked capacity levels to reach a view of likely gas flows. These factors will have included, among other things, its knowledge of the level of entry flow capable of being delivered to the Irish network, and any underlying reasons for unexpected increases in capacity bookings.

In our view, this explains why, where differences between 1 in 20 peak day forecasts and booked capacity levels occur, 1 in 20 peak day demand forecasts may be more cost reflective. In short, booked capacity levels inform NGG's investment planning process, but the 1 in 20 peak day demand forecast represents NGG's most accurate view of likely gas flows, and is therefore, in our view, more likely to be a cost driver.

The FMR indicated concerns among some workgroup members that implementation of UNC 0356 may not be consistent with the principles of UNC 195AV: Introduction of Enduring NTS Capacity Arrangements¹⁶. In particular, some participants were concerned that implementation of UNC 0356 would reduce the incentive on system users to efficiently manage their exit capacity bookings and could lead to inefficient investment signals being sent to NGG through long term exit capacity purchases. By contrast, those participants, and the proposer of 0356A, considered that 0356A would strengthen this relationship, and would therefore be more cost reflective.

¹³ To assist us in our decision we requested that NGG provide us with the demand data used to generate exit charges under both variants. For reasons of commercial confidentiality, this information, in the form it was provided to us, was not in the public domain during the consultation period.

¹⁴ The data shows that booked capacity levels exceed forecast demand at 120 exit points, while forecast demand exceeds booked capacity levels at 20 exit points.

¹⁵ In addition to long term capacity bookings, NGG's 1 in 20 peak day demand forecast, as published in its annual TYS, is derived from, among other things, information concerning gas flows provided by NTS users, in response to its annual Transporting Britain's Energy (TBE) consultation.

¹⁶ A copy of this modification can be found on the Joint Office of Gas Transporters website: <http://www.gasgovernance.co.uk>

We do not consider that implementation of UNC 0356 will reduce the incentive on system users to appropriately manage their capacity bookings. As stated above, the amount of capacity booked at an exit point is a key determinant in the 1 in 20 peak day demand forecast. Furthermore, the principal incentive on NTS users to efficiently manage their capacity bookings is derived from the capacity booking arrangements of the UNC itself, including the fact that NTS users are obliged to pay for the capacity that they hold regardless of whether they flow against it¹⁷. NTS users also face a financial user commitment on any requests for incremental capacity. These arrangements are unaffected by either modification proposal.

We further note that a feature of UNC 0356A is that Daily NTS Exit (Flat) Capacity bookings, and any bookings of Annual NTS Exit (Flat) Capacity made in the application window immediately preceding the gas year in question, will be excluded from the demand data set. This aspect of UNC 0356A may serve to underestimate actual gas flows and could, in some cases, provide an inappropriate incentive on NTS users to book short term capacity, both of which in our view would also undermine the cost reflectivity of the alternative.

SSC A5 paragraph 5 (b): that, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business

The current methodology for setting exit charges cannot generate final charges from 1 October 2012 or indicative charges for subsequent gas years because the demand assumption used within the Transportation Model is greater than forecast supplies of gas. Both modifications propose to amend the source of demand data in order to allow the Transportation Model to generate exit charges. In this respect both alternatives satisfy the achievement of this relevant objective.

SSC A5 paragraph 5 (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

In our view both modification proposals better facilitate effective competition. Gas suppliers and gas shippers depend on a fully functioning Transportation Model to generate publicly available indicative and final exit charges. The current arrangements no longer achieve this, whereas both alternatives provide a workable remedy.

Some consultation respondents considered that the use of booked capacity would lead to more transparent and stable exit charges which would facilitate effective competition better than the use of a forecast demand data set. In our view transparency concerning the calculation and publication of exit charges is important to competition. However, we note that neither alternative will impact on NGG's UNC obligation to publish indicative and final NTS Exit (Flat) capacity charges. We also note that under UNC 0356 NGG will be obliged to extend publication of its 1 in 20 peak day demand forecast from gas years 0 to 2, to gas years 0 to 4. In our view this will allow NTS users to verify the demand data underpinning calculation of indicative exit charges up to and including gas year y+4.

We recognise the importance of charging stability to gas shippers and suppliers, but we do not consider there is sufficient evidence to support the view that UNC 0356A will produce more stable charges than UNC 0356. Based on our analysis of the indicative charges for gas years 2012/13 to 2014/15, there is very little difference in charging volatility at an individual NTS exit point level across these years. In total we found that

¹⁷ NTS users can reduce their capacity holdings subject to the capacity reduction window arrangements. Users who exceed their capacity holdings are subject to capacity over-run charges.

at 45 offtakes there was no difference in the variation of exit prices generated; at 91 offtakes UNC 0356 generated greater variation than UNC 0356A; and at 77 offtakes UNC 0356A generated greater charging variation than UNC 0356. However, we also observed that the extent of the variation among the most volatile NTS exit points in each alternative was greater under UNC 0356A than 0356¹⁸. It is possible that 1 in 20 peak day demand forecasts may be subject to more frequent change on an enduring basis than capacity bookings and that this could lead to a level of charging change, but we also consider that changes to 1 in 20 peak day demand forecasts may be more incremental in nature than the step changes associated with capacity bookings, and that this could lead to smoother charging changes under UNC 0356 than UNC 0356A.

A number of consultation respondents considered that UNC 0356A would create discriminatory treatment between different classes of NTS exit point and that this would be detrimental to competition. UNC 0356A proposes to assume a zero demand flow for bi-directional sites with physical entry capability while for all other exit points demand would be based on capacity bookings. In our view the treatment of bi-directional sites with physical entry capability will effectively be the same under both alternatives, and, we do not consider UNC 0356A creates discriminatory treatment. Under UNC 0356 demand will be based on 1 in 20 peak day demand forecasts, but NGG has indicated its view that it will set this forecast to zero based on its knowledge of the operational requirements of bi-directional sites. In our view, if a zero demand assumption became inappropriate for such sites in the future, this input could be remedied under UNC 0356A (if it was directed for implementation) by way of a simple modification proposal.

SSC A5 paragraph 5 (e): compliance with the Regulation and legally binding decisions of the European Commission and Agency for the Co-operation of Energy Regulators (ACER)

We have also considered the impact both proposals could have on compliance with the Regulation and legally binding decisions of the European Commission and / or Agency for the Co-operation of Energy Regulators (ACER).

In terms of charging impacts, we note that the indicative charges generated by UNC 0356 and UNC 0356A both forecast a reduction in the NTS Exit (Flat) Capacity charges payable at the Moffat interconnector compared to the last set of indicative charges generated by the prevailing methodology.¹⁹ At the Bacton Interconnector both proposals forecast the same minimum²⁰ level of charges for gas years 2012/13 to 2014/15. On this basis we conclude that the proposal is neutral against this objective.

Decision notice

We consider that both modification alternatives better facilitate relevant objectives (a) (b) and (c) of SSC A5 paragraph 5. However, as noted in the SSC A5 paragraph 5(a) section above, we consider that UNC 0356 will be more cost reflective than UNC 0356A. Consequently, and in accordance with Standard Special Condition A5 of the Gas Transporter Licence, the Authority hereby directs that modification proposal UNC 0356 be made.

Andy Burgess
Associate Partner, Transmission and Distribution Policy
Signed on behalf of the Authority and authorised for that purpose.

¹⁸ We compared the greatest difference between maximum and minimum prices generated by both alternatives at each exit point. UNC 356(A) generated the 27 highest pricing variances.

¹⁹ Of the two alternatives UNC 0356 generates lower charges at Moffat than UNC 0356A.

²⁰ 0.0001 p/kWh/day