

Issue	Revision
1.0	Final

Forecasted Contracted Capacity (FCC) Methodology (the “FCC Methodology”)

**Effective from the date specified in the
UNC0678 Notice of Implementation**

Forecasted Contracted Capacity Methodology**Document Revision History**

Version/ Revision Number	Date of Issue	Notes
1.0	March 2019	Published as an Appendix to UNC0678. This methodology will become the first methodology for UNC0678 from the date specified in the UNC0678 notice of implementation

ABOUT THIS STATEMENT

This Forecasted Contracted Capacity Methodology describes the methodology that National Grid Gas plc (“National Grid”) in its role as holder of the Gas Transporter Licence in respect of the NTS¹ (“the Licence”) employs to determine the Forecasted Contracted Capacity to be input into the Capacity Weighted Distance (CWD) model for the creation of the Reserve Prices for Capacity.

If you require further details about any of the information contained within this Forecasted Contracted Capacity Methodology, or have comments on how it might be improved, please contact our Future Markets team at [or at:](#)

Future Markets (Gas)
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

¹ The Gas National Transmission System

Contents

ABOUT THIS STATEMENT	3
GENERAL INTRODUCTION.....	5
BACKGROUND	5
CHAPTER 1: PRINCIPLES	6
PURPOSE OF THE STATEMENT	6
SCOPE.....	6
CHAPTER 2: GOVERNANCE.....	6
CHAPTER 3: CREATION OF THE FORECASTED CONTRACTED CAPACITY (FCC).....	7
CHAPTER 4: EXCEPTIONS	11

GENERAL INTRODUCTION

Background

1. National Grid is the owner and the operator of the gas National Transmission System (NTS) in Great Britain.
2. The NTS plays an important role in facilitating the competitive gas market and helping to provide the UK with a secure gas supply. It is a network of pipelines, presently operated at pressures of up to 94 barg, which transports gas safely and efficiently from coastal terminals and storage facilities to exit points from the system. Exit points are predominantly connections to Gas Distribution Networks (GDNs), but also include storage sites, and direct connections to power stations, large industrial consumers and other systems, such as interconnectors to other countries.
3. These operations are carried out to meet the needs of the companies that supply gas to domestic, commercial and industrial consumers and to power stations.

CHAPTER 1: PRINCIPLES

Purpose of the Statement

4. This Forecasted Contracted Capacity (FCC) methodology statement (“the FCC Methodology”) has been produced to provide the methodology which will be used to create the FCC for all Entry and Exit Points, which is an input into the Capacity Weighted Distance Model (CWD) approach to the Reference Price Methodology (RPM) as per UNC0678, to produce the Entry Capacity and Exit Capacity reference and reserve prices.
5. The purpose of this methodology is to determine an annual value (based on a daily p/kWh/d) for each Entry and Exit point that will be used as part of the capacity reference prices and reserve prices calculations.

Scope

6. The FCC is an integral input to the Capacity Weighted Distance (CWD) model. This FCC methodology statement covers the steps used to calculate the FCC for all Entry and Exit Points which are within the CWD.

CHAPTER 2: GOVERNANCE

7. The FCC for an Entry Point or an Exit Point will be equal to a forecasted value determined by National Grid, in line with this methodology statement. The FCC Methodology attached to the UNC0678 Proposal applies from the Effective Date of the modification, for application within the relevant Gas Year(s). For the avoidance of doubt, this FCC Methodology does not form part of the UNC.
8. Ahead of each Gas Year, National Grid will apply the FCC Methodology to determine the FCC value for each Entry Point and Exit Point and these values will be communicated to industry as part of the publication of charges.
9. Where National Grid believes it necessary to review or update the FCC Methodology, it will consult with Stakeholders. Following the consultation, if the FCC Methodology is revised, National Grid will notify industry of any revisions as part of the publication of charges. Any such consultation would be concluded in advance of setting the tariffs for the forthcoming Gas Year.
10. Any such revision will take effect from the date specified unless Ofgem (upon application by any Shipper or Distribution Network Operator within one month of the notice) directs that the change is not made as per its powers under Standard Special Condition A11(18) of National Grid’s Licence.

CHAPTER 3: Creation of the Forecasted Contracted Capacity (FCC)

Overview

11. The FCC is produced as a forecast for the subsequent 5 Gas Years.
12. The FCC values will be updated on an annual basis before setting the capacity charges for the applicable Gas Year (Y), which will be the first of the five years.
13. For the Gas Year Y, the application of the FCC Methodology will provide the actual FCC values to be used in setting tariffs with the CWD RPM.
14. The FCC is calculated for all Entry Points and Exit Points which are not Gas Distribution Networks (GDN) Exit Points by taking the greater of:
 - (a) Existing Contracts (as defined in the UNC) for the relevant Gas Year (Y) (average kWh/d)
 - (b) Non-zero priced historical capacity sales for previous Gas Year (Y-2) (average kWh/d)
 - (c) Historical flow for previous available Gas Year (Y-2) (average kWh/d)
 - (d) Forecast supply or demand for the relevant Gas Year (Y) (average kWh/d)
 - (e) Planning and Advanced Reservation of Capacity Agreement (PARCA) reserved capacity, if the associated PARCA has progressed to Stage 2 for the relevant Gas Year (Y) (average kWh/d)
15. The FCC is calculated for GDN Exit Points as the latest capacity booked for the Gas Year Y-1, known at the time of setting the reference prices for Gas Year Y
16. For Gas Year Y+1, Y+2, Y+3 and Y+4 an FCC estimate for all Entry Points and Exit Points is provided in order to inform indicative prices.
17. For these Gas Years (Y+1, Y+2, Y+3 and Y+4):
 - (a) This FCC Methodology will be used to determine the FCC values with the exception of the historical flows and non-zero historical capacity sales, which will continue to use Gas Year Y-2 values.
 - (b) For GDN Exit Points, the FCC will be equal to the latest capacity booked for the associated Gas Year

Calculations

Entry Points

18. All Entry Points utilise the same process in the calculation of the FCC, which for the relevant Gas Year is the greater of the elements outlined in (a), (b), (c), (d) and (e) below:

(a) **Existing Contracts** for the relevant Gas Year:

- i. Capacity value booked under an Existing Contract for the relevant Gas Year for which the FCC is being produced
- ii. This value is then converted to an average capacity (kWh/d) booked per day over the Gas Year

(b) **Non-zero priced Historical Capacity Sold** for previous available Gas Year (average kWh/d) Y-2:

- i. This input is the same for the calculation of the FCC for Y, Y+1, Y+2, Y+3 and Y+4
- ii. Historical sold non-zero priced capacity value for the Gas Year Y-2
- iii. The values from steps 18 (b) (i) and (ii) divided by the number of days in the relevant Gas Year to obtain an average daily value (kWh/d) for the relevant Gas Year

(c) **Historical Flow** for previous available Gas Year (average kWh/d) Y-2:

- i. This input is the same for the calculation of the FCC for Y, Y+1, Y+2, Y+3 and Y+4
- ii. Historical annual flow value for the Gas Year Y-2
- iii. The values from steps 18 (c) (i) and (ii) divided by the number of days in the relevant Gas Year to obtain an average daily value (kWh/d) for the relevant Gas Year

(d) **Latest Updated Forecast** from data in the Gas Ten Year Statement (GTYS) for Gas Year Y:

- i. Value used for the relevant Gas Year for which the FCC is being produced
- ii. Exact value within the Updated Forecast used for all sites except Bacton and Onshore:

- For Bacton, sold capacity in the previous Gas Year is used as a proxy for the forecast to split to Bacton IP and Bacton UKCS
 - For Onshore, sold capacity in the previous Gas Year used as a proxy for the forecast to split to all Onshore sites
 - iii. The values from steps 18 (d) (i) and (ii) divided by the number of days in the relevant Gas Year to obtain an average daily value (kWh/d) for the relevant Gas Year.
- (e) **PARCA Capacity Value** if progressed to Stage 2 of the PARCA at the time of producing the FCC for Gas Year Y:
- i. PARCA reserved capacity for the relevant Gas Year for which the FCC is being produced
 - ii. PARCA reserved capacity taken from start date of when capacity is required
 - iii. PARCA reserved capacity multiplied by the number of days the PARCA is applicable for in the Gas Year
 - iv. The value from step 18 (e) (iii) divided by the number of days in the relevant Gas Year to obtain an average daily value (kWh/d) for the relevant Gas Year

Exit Points

19. For GDN Exit Points, the **booked capacity** will be used as the FCC:

- (a) For Gas Year Y, the latest available non zero priced capacity booked for Gas Year Y-1 will be used
 - i. e.g. the FCC for Gas year 2019/20 will be equal to the latest non-zero priced capacity booked for gas year 2018/19
- (b) For Gas Years Y+1, Y+2, Y+3, Y+4, the capacity booked at the time of production of the FCC, will determine the FCC for the relevant Gas Year
 - i. e.g. the FCC for Gas year 2020/21 will be equal to the latest capacity booked for gas year 2020/21
- (c) The values from steps (19) (a) and (b) will be divided by the number of days in the relevant Gas Year to obtain an average daily (kWh/d) value for relevant Gas Year

20. For all other Exit Points the same process will be used in the calculation of the FCC, which for the applicable Gas Year the FCC is produced, is the greater of the following:

- (a) **Non-zero priced Historical Capacity Sold** for previous available Gas Year (average kWh/d) Y-2

- i. This input is the same for the calculation of the FCC for Y, Y+1, Y+2, Y+3 and Y+4
- ii. Historical sold non-zero priced capacity value for the Gas Year Y-2
- iii. The values from steps 20 (a) (i) and (ii) divided by the number of days in the relevant Gas Year to obtain an average daily value (kWh/d) for the relevant Gas Year

(b) **Historical Flow** for previous available Gas Year (average kWh/d) Y-2

- i. This input is the same for the calculation of the FCC for Y, Y+1, Y+2, Y+3 and Y+4
- ii. Historical annual flow value for the Gas Year Y-2
- iii. The values from steps 20 (b) (i) and (ii) divided by the number of days in the relevant Gas Year to obtain an average daily value (kWh/d) for the relevant Gas Year

(c) **Latest Updated Forecast** from data in the Gas Ten Year Statement (GTYS) for Gas Year Y

- i. Value used for the relevant Gas Year producing for which the FCC is being produced
- ii. Exact value within the Updated Forecast used for sites
- iii. The values from steps 20 (c) (i) or (ii) divided by the number of days in the relevant Gas Year to obtain an average daily value (kWh/d) for the relevant Gas Year

(d) **PARCA Reserved Capacity** if progressed to Stage 2 of the PARCA at the time of producing the FCC for Gas Year Y

- i. PARCA reserved capacity for the relevant Gas Year for which the FCC is being produced
- ii. PARCA reserved capacity taken from start date of when capacity is required
- iii. PARCA reserved capacity multiplied by the number of days the PARCA is applicable for in the Gas Year
- iv. The value from step 20 (d) (iii) divided by the number of days in the relevant Gas Year to obtain an average daily value (kWh/d) for the relevant Gas Year

- v. Information for the applicable PARCA sites is available on National Grid's website (<https://www.nationalgridgas.com/connections/reserving-capacity-parca-and-cam>)

CHAPTER 4: Exceptions

21. In the first instance, this FCC methodology will be applied. In exceptional circumstances, it may be necessary for National Grid to apply different principles to determine an FCC for a specific Entry or Exit point. This would be required to ensure reference prices and reserve prices can be generated so as not to inhibit the operation of the RPM. Examples may include, and are not limited to:
- i. If an Entry or Exit Point no longer has capacity to be made available for an auction or allocation process however it remains in the Licence;
 - ii. If an Entry or Exit Point is not realistically expected to yield any capacity bookings due to known circumstances such as closure of a site and / or capacity cannot be made available;
 - iii. Other situations whereby alternative approaches are required in order to derive an FCC value for the Entry or Exit Point for which a price will be required in the given year.
22. Where an approach other than that given in Chapter 3 is used, National Grid will outline along with publication of charges where this has been carried out.