

UNC 0356 Demand Data: References & Glossary

UNC 0356 Workgroup
10th May 2011

Introduction

- At the 8th February 2011 UNC Modification 0356 Workgroup it was agreed that National Grid would provide a supporting glossary and references to clarify the terms used within UNC Modification Proposal 0356 and supporting documentation

Extract from 2010 TYS

3.8 Impact of Exit Reform on Peak Gas Demand

- Peak day gas demand forecasts assume all interruptible contracts will be interrupted on a peak day. From October 1st 2012 all transmission exit capacity will be firm.
- The undiversified firm peak demand is used where location is important. **For supply/demand matching purposes where the location is not relevant, the diversified total forecast is more appropriate.** Both the diversified total and undiversified firm peak day demands are close to the highest ever gas demand. The sold demand is the sum of all capacity sold. However each offtake is entitled to buy up to a baseline capacity. Obligated peak day demand is the maximum of sold or baseline at each offtake.
- From 2012, the undiversified firm peak day will be replaced by the undiversified forecast. This is the total of National Grid's forecasts of the highest demand at each LDZ and NTS offtake, excluding storage sites and IUK. This will include demand at new sites which do not have a baseline capacity and have not yet bought any capacity.
- Three peak day demand forecasts will be produced. The diversified total will continue to be the preferred figure for supply/demand analysis. **Where location is important, there will be a choice of undiversified firm or obligated.**

Extract from “Gas Demand Forecasting Methodology”

2.9 Diversity

- Diversity in the context of gas demand refers to how the demands at different points of the network are added together. **Undiversified demand is derived by forecasting peak demands and load duration curves for each location separately, and then summing these calculated figures.** Diversified demand is calculated by adding together the daily demands for all the locations first and then calculating peak day and load duration curves from the aggregate number. Diversified demand is the aggregate demand for a group of consumers which allows for each consumer to be using gas at different times. Diversity factors can be calculated as the percentage difference between undiversified and diversified forecasts. They are an output from the process not an input.

Extract from 2010 TYS

Appendix One - Process Methodology

A1.1.1.3 Peak Day Demand Modelling

- Once the annual demand forecasts and daily demand/weather models have been developed, a simulation methodology is employed, using historical weather data for each LDZ, to determine the peak day (in accordance with statutory/Licence obligations) and severe winter demand estimates. Where possible, the peak day demand of the NTS supplied loads, such as the power stations, are based on the contractual arrangements. Export demands are treated slightly differently; the Belgian Interconnector is assumed not to be exporting at times of peak demand, due to the high price of British gas, and Irish demand is derived from the market sector based approach mentioned above. For the post exit [reform] undiversified peak day there is **an obligated peak day based on contractual obligations** and **a forecast peak day which reflects actual consumption of the NTS supplied loads.**

UNC – General Terms Section C

- 2.6.4 For the purposes of the Code, in relation to the Total System, any part of the Total System, a System or any part of a System, and in respect of any Gas Year:
 - (a) "**peak day demand**" is the highest demand for gas on any Day in that year;
 - (c) "**1-in-20 peak day demand**" is the peak day demand that, in a long series of winters, with connected load being held at the levels appropriate to the winter in question, would be exceeded in one out of 20 winters, each winter being counted only once;
- 2.6.7 A reference in the Code in relation to any Gas Year to "Total System 1-in-20 peak day demand" is the 1-in-20 peak day demand for the Total System established for the Gas Year pursuant to TPD Section O and set out in National Grid NTS's Ten Year Statement.

UNC TPD Section O

Publication of Forecast Data

- The following section of the UNC allows for the publication of charging related data. This would need to be modified to cover additional years if an alternative proposal, using solely forecast data, was raised. The following **bold** text was introduced via UNC 0134V into the UNC to overcome confidentiality issues (forecast data relating to a single shipper).

- 4.1.2 The Ten Year Statement will typically include:
 - (a) details for year - 1 of actual peak day demand:
 - (i) for the Total System; and
 - **(ii) for System Exit Points (other than Unmetered Connected System Exit Points) in accordance with paragraph 4.1.3;**
 - (b) estimates:
 - (i) for each of years 0 to 9 (or for certain of such years), of Total System 1-in-20 peak day demand and the Total System seasonal normal annual demand, upon each of the demand growth assumptions under paragraph (e) below; and
 - **(ii) for each of years 0 to 2, of 1-in-20 peak day demand in accordance with paragraph 4.1.3;**
 - (c) estimates for each of years 0 to 9 (or for certain of such years) of maximum daily supply for the Total System, by System Entry Point, and the assumptions (in accordance with paragraph 2.2.1) on which such estimates were made;
 - (d) an estimate for year 1 of the amounts by which maximum daily supply falls short of Total System 1-in-20 peak day demand;
 - (e) different assumptions as to overall growth in demand for gas in years 0 to 9 or certain of such years;
 - (f) the principal economic and other assumptions made by National Grid NTS in preparing such estimates; and
 - (g) a reference date for the making of estimations of demand.

- **Notwithstanding the foregoing, National Grid NTS may elect to publish all or part of the information set out above either within the Ten Year Statement or separately (but at the same time as publishing the Ten Year Statement). Where National Grid NTS elects to publish such information separately from the Ten Year Statement, National Grid NTS shall not be required to update such information at any time after publication.**

- **4.1.3 The details or estimates under paragraphs 4.1.2(a)(ii) and 4.1.2(b)(ii) will be given in respect of each NTS Exit Point on an individual basis (but not for Storage Connection Points).**