

Climate Change Methodology

Technical Requirements

Introduction

This document represents the first draft of the Demand Estimation Sub-Committee's ("DESC's") technical requirements which will be used as the central reference point before entering the procurement phase for the Climate Change Methodology. This document should be as clear and detailed as possible to ensure the final Methodology is likely to be accepted by DESC.

These requirements must be accepted by DESC before the formal procurement activity can commence.

Development of Climate Change Methodology

- The Service Provider will be required to develop a "Climate Change Methodology" ("the Methodology") as described in Uniform Network Code (Section H1.4.5 and Transition Document IIC 11.5.5). This Methodology can be applied by the GB Gas Industry to adjust historical weather data to take into account climate change trends.
- The Service Provider must deliver a written Methodology to describe the approach that will be applied to determine the future impacts of climate change trends on GB weather. The Methodology must include a description of the data sources for the calculation and formula/method to be applied in the calculation. The Methodology should be applicable and practicable for all current weather stations used in NDM Gas Allocation and their likely replacements. The start point for the calculations must be the revised historical dataset as defined as part of the development of the Weather Station Substitution Methodology
- The Service Provider must provide documentary evidence to support the chosen methodology, including details of any other potential approaches which have been considered but disregarded.
- The Methodology delivered by the Service Provider to Xoserve must then be approved by the Demand Estimation Sub-Committee prior to its use by the GB Gas Industry.

Scope of Methodology

- The Service Provider will be required to develop a Methodology which will be applied to:
 - Hourly data, wherever available, for all data items
 - History for all data items from 1 January 1960
 - Data up to end of previous complete gas year (a "gas year" runs from 1 October to 30 September each year)
 - List of required data items:
 - Temperature in °C
 - Wind speed in meters per second
 - List of optional data items, to be subject to a separate quotation:
 - Wind direction in ° (from 0 to 359°, specifying which compass point is represented by 0)
 - Solar radiation in joules per cm² (or other specified measure)
 - Relative humidity in %

Climate Change Methodology Technical Requirements

- Precipitation in millimetres
- List of required current GB Weather stations
 - Aberdeen 03091
 - Aberporth 03502
 - Albemarle 03238
 - Aviemore 03063
 - Benson 03658
 - Bristol 03628
 - Charlwood 03769
 - Church Fenton 03355
 - Coleshill 03535
 - Edgbaston 99028
 - Edinburgh 03166
 - Glasgow 03134
 - Heathrow 03772
 - Linton-on-Ouse 03266
 - Manchester 99029
 - Marham 03482
 - Plymouth 03827
 - Rhyl 03313
 - Southampton 99079
 - St Athan 03716
 - Watnall 03354
 - Wattisham 03590
 - Rostherne xxxxx
 - Yeovilton 03853
 - Lerwick 03005
 - Stornoway 03026
- Outputs from the assignment:
 - The required output is [a set of increments which can be applied to the agreed historic hourly weather dataset for the period [[1 October 2014 to 30 September 2024]] to represent the predicted impact of climate change trends on weather experience for the future period]
 - Correlation between the variables is maintained
 - Correlation between weather variables on successive days is maintained
 - The results from this service must be licensed for disclosure by Xoserve to all UNC parties on request (Gas Shippers and Transporters)
 - [need to describe in full the steps required to make the outputs suitable for use in CWV]