

### Weather Station Substitution Methodology – Update

A paper prepared on behalf of the Demand Estimation Sub-Committee, by Fiona Cottam, Xoserve Ltd.

#### **Purpose of this Update**

To brief the UNCC on the background to the Weather Station Substitution Methodology and explain the process followed, which has identified an increase in costs compared to the original cost estimate.

#### **Background**

The concept of a **Weather Station Substitution Methodology** (“WSSM”) was introduced into UNC by Modification 0330 - Delivery of additional analysis and derivation of Seasonal Normal weather, which was raised by SSE.

Weather data (in the form of two-hourly temperatures and four-hourly wind speeds) is used in gas industry Demand Estimation to determine the relationship between gas demand and weather, as the foundation of the development of Annual Load Profiles and Daily Adjustment Factors. Those two parameters are key inputs to the apportionment of Non-Daily Metered (NDM) energy for both the Nominations and Allocations processes.

New text was added to UNC Transition Document Part IIC (paragraphs 11.5.3 to 11.5.9) which placed an obligation on the Transporters to procure the development of a Weather Station Substitution Methodology from a reputable meteorological services company.

Weather for the 13 LDZs is measured at 10 GB weather stations (some weather stations are used for two or more neighbouring LDZs). A consistent stream of historic weather data is critical to the development of the gas algorithms. When a weather station closes, a replacement weather station must be selected which gives a similarly good fit to the NDM Demand in the LDZ. Once the Demand Estimation Sub-Committee has accepted the WSSM, it will provide a defined methodology for converting data from one weather station to be consistent with its successor (or predecessor) station. The modification also required the delivery of a definitive dataset of historic weather data, to which the WSSM had been applied. This would ensure a common understanding of historic data and standardise the treatment of all previous weather station closures.

The modification also introduced the concept of a **Climate Change Methodology**. TD IIC 11.5.5 specifies that the latter methodology would be procured after the acceptance of the former methodology. For the purpose of this paper, the WSSM is referred to as Phase 1 and the Climate Change Methodology as Phase 2.

#### **Procurement of the service**

The Gas Transporters instructed Xoserve to undertake a procurement exercise to select a service provider to deliver the WSSM and associated dataset. Xoserve consulted the Demand Estimation Sub-Committee (“DESC”) to define the detailed Technical Requirements for the service.

DESC agreed a set of requirements which included up to 26 weather stations and 7 weather data items. In defining these requirements, DESC was mindful of its ongoing investigations into an improved gas allocation process to support Project Nexus: these investigations are actively looking at a number of options, including the use of more weather data items in order to improve the fit of demand to weather.

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**Costs of the service**

The modification included an estimate of the cost of the WSSM of £20,000, which the proposer had obtained informally from a meteorological services company, prior to raising the modification. This financial figure was repeated in both the Final Modification Report and Ofgem's Decision Letter, even though it had not been subject to any further validation. There had been no similar previous assignments against which the costs should be benchmarked.

The development of the WSSM and the associated dataset will be a User Pays service, split in a 50:50 ratio between Gas Transporters and Shippers. The Shipper element will be distributed on the basis of number of live NDM supply points.

Xoserve undertook a Request for Proposal process to select a preferred supplier. The responses from potential suppliers indicated that the likely costs were significantly higher than had been anticipated by the Proposer of the modification. When Xoserve identified the cost increase in early October, it asked Joint Office to convene an extraordinary meeting of DESC to review the anticipated costs against the scope as determined in the Technical Requirements.

The potential Suppliers had been asked to provide cost estimates for four different scenarios, based on the maximum and minimum numbers of data items and weather stations. This showed that the equivalent service provider cost of the minimum gas industry requirements would be around £40,000, compared with the proposer's original estimate of £20,000. The estimated third party cost of delivering the full Technical Requirements would be around £80,000. In each case the Supplier estimates included a small saving in the cost of the Methodology if fewer data items were in scope.

It should be noted that the dataset will need to be licensed for distribution to a wide audience of all Transporters and Shippers, and that this has increased the price of the service, to reflect that there would be a much reduced market and the lack of further retail opportunities for the data for any service provider.

Having reviewed the various cost scenarios at its extraordinary meeting on 18 October, DESC confirmed a revised requirement of 6 data items and 26 weather stations, which may give a small saving compared to the estimate of £80,000, due to the removal of 1 data item.

It should be noted that under the User Pays arrangements, Xoserve's direct costs for the procurement and establishment of the service must also be passed on to the relevant parties. These costs will only be known once the contract has been signed, and are not included in any of the above figures.

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### **Impact on costs of Phase 2**

It should be noted that the increase in costs for Phase 1 does not necessarily mean that the costs of Phase 2 will increase by the same proportion. There is no automatic requirement for an increase in the data items to be applicable to Phase 2, and an assignment similar to Phase 2 was undertaken on behalf of a group of Energy Suppliers in 2008, so the potential service provider would have been better placed to provide a cost estimate. However, in accordance with the Transition Document, procurement activities for Phase 2 will not commence until the WSSM has been accepted by DESC, so the cost estimate has not yet been validated.

The output from Phase 2 is required prior to the review of the current Seasonal Normal basis is use in the gas industry. Any further delay in updating the latest Climate Change dataset would delay the availability of a new Seasonal Normal basis for use in AQ calculation and in NDM Gas Nomination and Allocation.

### **Next steps**

Xoserve will now obtain the approval of its Senior Management to enter into a new contract and gain the approval of its owners, the Gas Transporters, before incurring any expenditure on their behalf. Once those two steps are complete, Xoserve will finalise a contract with the selected service provider and work can commence on development of the methodology. DESC will be advised when the exact costs are known.

DESC will also begin preparatory work on the Technical Requirements for Phase 2, in order to be in a position to commence procurement activities as soon as a WSSM has been accepted by DESC.

### **Recommendation**

DESC unanimously recommends that the procurement process continues with the latest revised scope, with an anticipated cost of around £80,000, and that preparation for Phase 2 commences as planned.