



Rough Order Magnitude (ROM) Request

Change Reference Number: (CIO Office will add)

Please send completed form to: <mailto:box.xoserve.portfoliooffice@xoserve.com>

Section A: Change Details	
Change Title	Improvements to the Composite Weather Variable
Will the Change impact the UNC (YES / NO)	
MOD Reference (if raised)	MOD659S
Contact Details of Person Requesting the ROM	
Contact Name	
Contact Email	
Contact Phone	

Section B: Xoserve Acknowledgement and Business Analyst Contact Details	
<i>(Xoserve CIO Office will add)</i>	
ROM Received Date	
ROM Response date	
Business Analyst Name	Andrew Steed
Business Analyst Email	Andrew.steed@xoserve.com
Business Analyst Phone	01216232623



Rough Order Magnitude (ROM) Response

Type of ROM Evaluation
ROM for Code-Modification
The Proposed Change (Xoserve' s understanding of the Modification)
<p>This UNC Modification proposes to extend the weather dataset that Xoserve currently receive to include two new data items to be used for the purpose of calculating the Composite Weather Variable (CWV). The two proposed data items are:</p> <ul style="list-style-type: none">- Solar Radiation- Precipitation <p>This ROM considers how Xoserve receive these new data items as well as the impacts of updating the formula for calculating the CWV.</p> <p>Current Situation Xoserve currently receive:</p> <ul style="list-style-type: none">- 4 daily files containing forecast weather data (for today and tomorrow)- 1 daily file containing actual weather data (for the previous day) <p>In the AWV and FWV file.</p> <p>These files currently contain:</p> <ul style="list-style-type: none">- wind speed readings taken/forecasted every 4 hours- temperature readings taken/forecasted every 2 hours <p>Once received into the system, the readings received in these files are weighted via a percentage which varies depending on the time of day they the reading was taken. This is to determine how much it will influence the final CWV figure (weather readings taken in the middle of the night tend to have less of an impact on gas demand than readings taken in the morning, for example). These percentage weightings are not currently configurable by the user.</p> <p>Once the weightings have been applied, the figures are fed into the CWV formula to produce the final CWV for that day.</p> <p>ROM Part 1 The first Part of the ROM request is to understand the effort and cost involved in modifying the CWV formula to take into account the new weather variables. The exact future formula is not known at this time and will be worked out following a period of analysis and consultation with Demand Estimation Sub Committee (DESC), to be completed at a later date.</p>

ROM Part 2

The second part of this ROM request is relating to how Xoserve will receive the new weather variable data items. There are a couple of options being considered.

1. The new data items to be received within the current files with wind speed readings taken/forecasted every 4 hours and temperature readings taken/forecasted every 2 hours
2. The new data items to be received within the current files but with readings taken/forecasted for all four data items on an hourly basis. This has been factored into the high end cost estimate.

ROM Part 3

The third part of this ROM request is to understand the effort and cost involved in updating the percentage weightings that are applied to the current weather readings to make them configurable. The initial weightings for the new weather data items will be determined following a period of analysis.

This has been included to provide the option to build additional flexibility into the CWV calculation process.

Additional Considerations

There are a couple of additional considerations to be considered in this ROM.

The first being a potential one off cost to acquire historic weather data for the proposed new weather variables. This will be used to carry out some analysis by the CDSP in order to determine what impact they will have on gas demand and factor this into the CWV formula. It is assumed that this analysis work will be completed as part of the planned analysis included within the Business Plan. There may also be an additional cost if the scale of this analysis exceeds anticipated effort. These have been factored into the high end cost estimate.

Also considered will be a potential new contract between the CDSP and a weather service provider to provide the weather data directly. This will be an ongoing annual cost and will only be applicable if this is deemed to be a requirement. This has been factored into the high end on-going cost estimate.

Change Impacts

General Impacts to CDSP and External Parties:

Part 1

It is assumed that the new weather variables will be available in SAP ISU and therefore the program that performs the CWV calculation will need to be updated to account for the additional data.

Part 2

It is assumed that AWW and FWV file format will be modified to include values for solar radiation and precipitation for pre-defined intervals. S06 file will be modified to include new weather parameters which are being shared by Demand Estimation team. This will impact to the batch uploading AWW and FWV files that are used in the process of CWV calculations. It will result in modification of table structure in ISU and downstream calculations. PO modifications will be required for AWW and FWV (4 interfaces) to include new validations.

Part 3

A new interface file can be introduced in the same manner as other S files are available in ISU system. It will contain the weightages required for all 4 parameters like -wind, temperature, solar radiation and precipitation. A new batch job will be built to store the data in ISU and processing will take place in ISU. Changes are required in PO to include the new proposed S file (new interface).

BW SAP Impacts

It is assumed that all new weather variables and parameters are required in BW for reporting purpose. Hence extraction job modification, table restructuring would be required to include new parameters. Downstream BW changes and BW reporting changes/ new reports would be required.

External Interface Impacts (Changes to Screens, Portals, Files, Permitted Values, etc.)

The AWW and FWV file would need to be modified so that they can include the new data items. These are files provided to the CDSP by the weather service provider so there would be no impact on industry participants.

Impacts to Gemini System:

It is anticipated that there will be no impacts to the Gemini. Although the CWV is used as an input into Gemini, it is assumed that this change will produce a more accurate and refined figure that will be fed into Gemini with no downstream process impacts.

Code Communications Reference Document in the UK Link Manual:

No impacts identified.

DSC Service Areas Impacted:

15. Demand Estimation

Shipper User – 50%

DN Operator – 50%

Note: DSC Change Committee will resolve any difference between the funding split implied by the above and the benefit split of the proposed change.

Costs and Timescales

Change Costs (implementation):

An enduring solution will cost at least **£50,000**, but probably not more than **£130,000** to implement.

Change Costs (on-going):

An enduring solution will cost at least **£0**, but probably not more than **£25,000** per annum to operate if a contract is required for the CDSP to receive weather data directly.

Timescales:

This is required to be implemented prior to new CWVs going live in October 2020 and will need to be factored into the major release schedule.

Assumptions:

- Any changes in the approach to the solution may impact the overall costs of the change.
- Inclusion of any new requirement or modification of the requirements will change the cost.
- It is assumed that there no impacts to Gemini as AIA and CWF files remained unaffected. However, integration testing is required to ensure no impacts.
- New weather parameters are required in BW for reporting purpose. Hence BW changes have been scoped in.
- The resources for the analysis undertaken by the CDSP in support of the DESC review is assumed to be a 'business as usual' activity so is not factored into bottom end ROM cost. However, if it becomes apparent that a larger piece of work is required than has been accounted for within the Business Plan then this could become an additional cost. This has been factored into the high end estimate.

Dependencies:

DESC are due to complete its review of the CWV formula during 2019, the conclusions from this exercise will inform the changes needed in SAP-ISU and/or any new weather data contracts.

Constraints:**Observations:****Document Version History**

Version	Status	Date	Author(s)	Summary of Changes
0.1	Draft	08/10/18	Andrew Steed	Initial draft produced
0.2	Draft	10/10/18	Andrew Steed	Additional detail added
1.0	Approved	12/10/18	Andrew Steed	Approved

Template Version History

Version	Status	Date	Author(s)	Summary of Changes
2.0	Approved	22/05/18	Steve Ganney	Minor changes implemented