XRN4772 – Composite Weather Variable (CWV) Improvements

High Level Solution Option Assessment

Change Overview

XRN4772 - Composite Weather Variable (CWV) Improvements

According to UNC Modification 0659 , the requirement is to get the solar radiation and precipitation values considered as a weather variable in order to improve the accuracy of the Composite Weather Variables (CWV). At this time forecast and actual temperature and wind speed are considered by the CWV calculation.

By considering these additional variables it is expected that the accuracy of NDM gas nominations and allocations will improve which will have consequential benefits to the gas balancing regime managed within UK Link Gemini.

Additional functional changes are to be considered within the scope of this Change Proposal to facilitate future developments in the Composite Weather Variables requested by DESC.

Solution Options

| 1 | Amend the existing means that data is loaded to UK Link systems to be used in the CWV calculation process |

1 - Add the new data items into the current file structure

SAP ISU : The AWV and FWV file formats will be modified to include values for solar radiation and precipitation for pre-defined hour. S06 file will be modified to include new weather parameters which is being shared by Demand Estimation team. This will impact to the batch uploading AWV 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. Currently the weightages are been stored in the ISU for the 2 parameters i.e. temperature and wind speed. Changes will be made to have the weightage for the new parameters as well and also and a way to be able to amend those values as on required. So a newly interface file was been introduced for the same which will be received from the Demand Estimation Team.
SAP PO : Modifications will be required for AWV and FWV files to include new validations. Also configuration will be built for the newly introduced file containing the weightage for the parameters.
SAP BW : Modification will be required for the extraction job in order to perform table restructure to include new parameters. Downstream BW changes and BW reporting changes/ new reports will be built.

Impacted Systems

Impact

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Marketflow ──→ SAP PO ──→ SAP ISU ──→ CMS
                 ↑ (Gemini)
API ←── SAP BW ──→ DES
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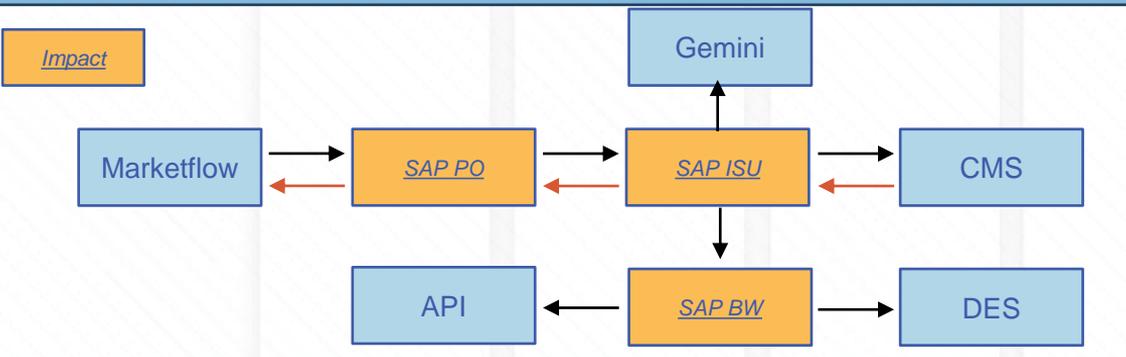
Assumptions

- No impacts to Gemini as AIA and CWF files remained unaffected.
- Impacts to external systems like MIPI are out of scope
- No frequency changes for the interfaces
- No market trials is needed
- Integration Testing in Gemini has only been considered
- End to End process testing in Gemini is out of scope.

Effort Type	Overall Impact	Release Type	High Level Cost Estimate
SI cost	Medium	Major	45,000 – 55,000 GBP
Weather Variable Purchase	N/A	N/A	2,000 – 15,000 GBP

Option 1 - System Impact Assessment

	SAP ISU	SAP PO	SAP BW			
System Component:	AQ	File Formats	Reports			
Development Type:	Code Change	Configuration Change	Code Change			
Impacted User(s):	Shippers	Shippers	Shippers			
Build Type:	Existing	Existing	Existing			
Change Description:	Code will be amended to consider the new parameters in the files and calculating Forecast / Actual weather values. New process will be configured to load the newly introduced file containing weightage of parameters.	New validations will be configured for the AWV and FWV files. New configuration will be built the newly introduced file containing weightage of the parameters	New parameters will be stored in BW and the reports will be built			

	SAP ISU	SAP PO	SAP BW			
Requirement Clarity:	G	G	G			
Change Complexity:	A	A	A			
Integration Complexity:	G	G	G			
Test Data Prep Complexity:	G	G	G			
Test Execution:	A	A	A			
Regression Testing Impact:	G	G	G			
Performance Impact:	G	G	G			

Option 1 - Process Impact Assessment

Process Area	Complexity	File Formats	Exceptions	External Screens	Batch Jobs	Performance Test?
SPA	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
Metering (Reads)	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
Reconciliation	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
Invoicing – Capacity	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
Invoicing – Commodity	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
Invoicing – Amendment	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
Invoicing – Other	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
Rolling AQ	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
Formula Year AQ	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
RGMA	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
DSC Service	n/a / H / M / L	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N	n/a / Y / N
Other (Weather Values)	M	Y	N	N	Y	N