



XRN4900 - Biomethane/Propane Reduction

High Level System Solution
Impact Assessment

Change Overview

XNR4900 - Biomethane/Propane Reduction

Distribution Networks have identified an opportunity to reduce carbon emissions and costs to consumers, by removing and/or reducing propane that is required to be injected to enrich the Calorific Value of biomethane that is entered into the gas networks.

At present, biomethane entry points are required to inject propane to varying contents, in order to increase the energy value of the gas to meet the current LDZ average daily Calorific Value (Flow Weighted Average Calorific Value or FWACV) levels.

Injecting propane is costly to the biomethane producer, who in turn is likely to pass on costs to consumers, which serves to reduce the environmental credentials of this renewable source of energy. DNs have been engaging with biomethane producers to establish a method for reducing the volume of propane required whilst recognising:

- Rules associated with CV Capping at an LDZ level and;
- Compliance with Statutory legislation: GS(M)R/Thermal energy regulations

Xoserve have been asked to consider impacts on gas Settlement and related processes in the event that propane injection is reduced / removed at biomethane entry points that exist within closed parts of the gas Network - In order to identify a pragmatic, tactical central solution that can meet requirements whilst also minimizing impacts on involved parties and industry processes.

Solution Options

1

Receipt of site specific CV through New file, for sites impacted due to Biomethane / propane reduction, in UK Link and Gemini to receive LDZ CVs in CON files as per BAU logic

Option 1 - High Level Impact Assessment

1 – Receipt of site specific CV through New file for sites impacted due to Biomethane / propane reduction and energy calculated using site specific CV

SAP ISU:

- Site-Specific CV Flag : Configuration of a new installation flag or the Network Innovation Project indicator to identify sites for site specific CV calculation
- New SAP Screen to set/amend the Site specific CV profile at device level to store the daily specific CV values
- New interface/File (with associated response file) to be designed as an enduring solution to receive and store daily CV values for impacted sites from SGN.
- Code changes to calculate energy post read receipt based on profile values for LDZ sites with Site specific CV flag
- Changes required in supporting information if site specific CV is to be sent for LDZ sites.

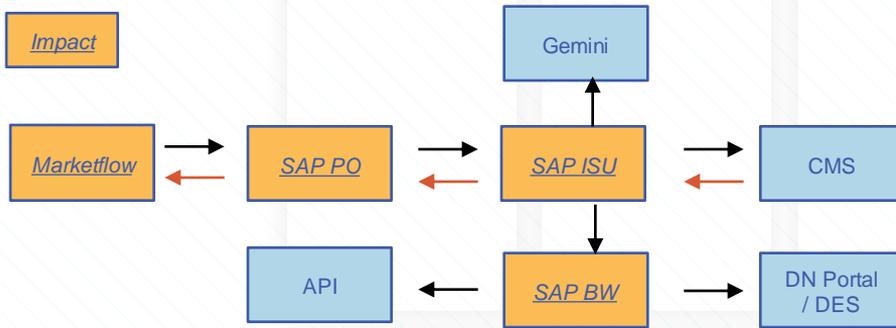
SAP BW:

- New Indicator & CV profile to be extracted to SAP BW along with start & end date.
- Changes to the existing reports to include the flag details along with indicator and dates (Appox.20 reports considered for modification)

AMT Marketflow & SAP PO: New interface/file (and associated response file) to be designed in SAP PO to receive the Site specific CV from SGN

Gemini: CON file will be received with LDZ CV only. Regression testing required in Gemini to ensure end to end flow up to energy balancing and UIG process.

Impacted Systems



Assumptions

- Any impacts to sites in Class 3 or 4 have not been considered as part of this assessment.
- Impacts/changes required to FWACV – currently managed by National Grid – have not been considered.
- Estimated reads will be calculated/adjusted using the site specific CV.
- For class 2 sites there will be a combination of MPRNs (Biomethane/ Normal). Energy calculation for the MPRNs will happen individually (Normal site based on the FWACV received in CVV file and Biomethane site with the site specific CV) and the aggregate Energy will be sent to Gemini in CON file.
- The CON file issued to Gemini and invoicing will contain the FWACV not site specific CV.
- If daily site specific CV reduction data is not received, use default D-1 CV.
- Any changes to the CV will follow the normal amendment process.
- Additional analysis may be needed to ensure no impacts to Gemini UIG process.
- No impacts to Demand Estimation have currently been identified at this stage.
- Solutions only considered for closed parts of the gas Network being fed by biomethane, and where site specific CV is being delivered to recognised MPRNs
- This estimate is based on high-level analysis, based on the discussion for requirement and solution, the stated efforts may change.

Overall Impact

X-Large

Release Type

Major

High Level Cost Estimate

175K to 300K GBP

Option 1 - System Impact Assessment

	Reports (BW/BO)	Interface	Enhancements	Gemini
System Component:	SAP BW/BO	PO/ISU	SAP ISU	Gemini
Impacted Process Areas:	Extractor modification and existing Reports amendments	File Format	Reads & Billing	Gemini Allocation
Complexity Level (per RICEFW item):	Medium	High	High	Low
Change Description:	<ul style="list-style-type: none"> Changes to existing DSO to extract new indicator and additional data items BO report changes to include the additional data items 	<ul style="list-style-type: none"> Design & Build file interface SAP PO and ISU and its response Agree the file format and its response fields as part of design phase. 	<ul style="list-style-type: none"> Introduction of New installation fact Enhance the installation fact screen to set the CV profile for flagged sites Code changes to read processing, energy calculation and invoicing programs 	<ul style="list-style-type: none"> .CON file to be sent with LDZ CV only E2E Regression testing

	BW	PO/AMT Marketflow	ISU	Gemini
Test Data Prep Complexity:	Medium	High	High	Low
Unit & System Test Complexity:	Medium	Medium	High	Low
Penetration Test Impact:	No	Yes	Yes	No
Regression Testing Coverage:	Medium	Low	High	Low
Performance Test Impact:	Yes	Yes	Yes	No
Market Trials:	No	No	No	No
UAT Complexity:	Medium	High	High	Medium

