

If you have any questions relating to this Cap Gemini Impact Assessment Response please email ysanne.hills@elexon.co.uk.

Change Form		ELEXON Reference
		P213
Title		Version No.
Facilitating Microgeneration (Optional Single MPAN)		
		Contractor Reference
		CR2211
Type of Assessment	Date Change Request Received	Date Impact Assessment Issued
DLIA	01/06/2007	15/06/2007
Brief Summary of Change		
<p>Modification Proposal P213 seeks to simplify Non Half Hourly settlement of microgeneration by removing the requirement for Suppliers to have separate Metering Point Administration Numbers (MPANs) for the import and export registers. Instead, Suppliers will have the option of registering a customer's import and export using a single MPAN.</p> <p>P213, together with the accompanying Requirements Specification (document reference P213AS, version 1.0) specifies the changes required to the ISRA and MDD applications in order to achieve this objective. This is broken down into core changes together with a number of options for dealing with certain aspects of the changes. These changes are summarised below based on the information provided, and using the format requested, in Appendix 2 of the Requirements Specification.</p> <p>Core Changes to ISRA and MDD Software (A2.1)</p> <p><u>Extension to Valid Set of SSC Type (A2.1.1)</u></p> <p>Both MDD and ISRA would be amended to recognise an additional SSC type of X for use with Import/Export Standard Settlement Configurations (SSCs). This data would be stored in MDD and output via the D0269, D0270 and D0278 flows. The data would be loaded into ISRA via the D0278 flow.</p> <p><u>New Import/Export Flag held against Measurement Requirement (A2.1.2)</u></p> <p>A new flag will be required at the TPR level for Import/Export SSCs to indicate which are import and which are export. This will be included in the Measurement Requirement entity in MDD (entity 29) and will be called the Import/Export Register Type. It will also be added to the TPR record in the D0278 flow, which will be used to load this data into ISRA.</p> <p><u>ISRA to Hold Substitution Table (A2.1.3)</u></p> <p>A new ISRA database table would contain a substitution table which would be used by the software to determine which Period Profile Class Coefficients (PPCCs) to use for Import/Export SSCs. This data would be loaded into ISRA either manually, via a data entry screen, or automatically via the MDD D0278 flow, according to whether or not the substitution table would be held in MDD as well as ISRA (see Additional Change for Publication of Substitution Table).</p> <p><u>ISRA to Use Substitution Table in Calculation of Profile Coefficients (A2.1.4)</u></p>		

Two options are proposed for the use of the Substitution Table when calculating PPCCs: either

- substitute the PPCC values as part of the Daily Profile Production (DPP) run; or
- exclude Import/Export SSCs from DPP and replicate the PPCC substitution in each part of the software that uses PPCC data.

ISRA to Assign Import/Export Energy to Correct Consumption Component Class (A2.1.5)

For Import/Export SSCs only, ISRA would use the new Import/Export Register Type flag to allocate energy to the correct Consumption Component Class (CCC) at TPR level.

Additional Changes for Publication of Substitution Table (A2.2)

Three options are proposed for the publication of the Substitution Table.

- (a) Data not published. In this case the data would be held in ISRA only and would be entered manually via a data entry screen.
- (b) Data published in MDD. This would require a new MDD table to hold the Substitution Table data, which would be added to the D0278 flow for loading into ISRA. A manual ISRA data entry screen would also be provided for backup. The data could be provided to Suppliers by one of the following methods:
 - a new version of D0269 and D0270
 - a new version of D0280
 - a completely new data flow.
- (c) Data published on the ELEXON website. From an SVA Agent viewpoint, this is the same as option (a) in that the data would not be held in MDD and would be entered manually into ISRA via a data entry screen.

Additional Changes for potential Alternative Modification (A2.3)

The Alternative Modification proposes that the Substitution Table be used to select substitute Line Loss Factors (LLFs) as well as substitute Profile Coefficients. Three sub-options are considered.

- (1) Extend the substitution table to include LLFCs. This would be held in ISRA and potentially in MDD depending on the publication option chosen. Data would be entered via a data entry screen(s). VAR processing would be amended to select substitute LLFs when processing Import/Export SSCs.
- (2) Additional change to amend the Distribution Use of System (D0030) report to include substitution details.
- (3) Additional change to amend both the D0030 and Supplier Purchase Matrix (D0082) reports to include substitution details.

Pool Application

In addition to the changes to MDD and ISRA identified within the Requirements Specification, P213 will also have an impact on the Pool Application. The SVAOSS team has carried out an assessment of the impact on the Pool Application and this SVA Agent assessment takes the SVAOSS assessment into account.

Operational Impact and Solution

Core Changes to ISRA and MDD Software

MDD procedures will need to be amended to include the new SSC Type and the Import/Export Register Type fields.

Procedures will be required for entering and amending data in the Substitution Table, taking account of the option chosen for its publication.

Additional Changes for Publication of Substitution Table

Options (a) and (c): A procedure will be required for manual entry of data into the Substitution Table in ISRA as standing data. Option (c) will also require a mechanism for the SVAA to provide the table contents to ELEXON for publication on the website.

Option (b): Procedures will be required for manual entry of data into the Substitution Table in MDD and ISRA (as a backup), and for automatic entry into ISRA via an MDD flow. The MDD distribution matrix will need to be updated to reflect the new flow and/or the new versions of existing flows.

Additional Changes for potential Alternative Modification

The Alternative Modification would affect the calculations carried out by the ISRA software, the new data input screen, and the content of some of the ISRA reports, but would not significantly impact the SVA Agent's procedures.

Ongoing Operational Work

If either option (a) or (c) is chosen for the distribution of the Substitution Table, this data will be held in ISRA only and will be treated as standing data. No information is available on the frequency with which this data is likely to change, or the format and medium that will be used for passing such data to the SVA Agent. The SVA Agent will absorb the cost of the first 20 changes to the Substitution Table received within each calendar month. A charge will be levied for any changes above this threshold. It is recommended that this arrangement be reviewed 6 months after live implementation of P213.

If option (b) is chosen for the distribution of the Substitution Table, the data will be held in MDD and transferred into ISRA electronically. It is expected that with this option any changes to the Table will be treated as part of the normal MDD update and publish cycle. In this case, there would be no additional charge for updating the table.

Testing Requirements and Approach

Regression	√	Change Specific	√		
Full Width	√	Performance	√		
SAT	√				

Comments on SVAA Testing:

Operational Acceptance Testing

A price has been provided for Operational Acceptance Testing of the Core Changes to MDD and ISRA together with options (a) or (c) for the publication of the Substitution Table, as this represents the minimum requirement. This price also includes testing the Pool Application and the changes to the following reports:

- MAE: Mix of Actuals and Estimates
- P0145: PARMS Serial SP08 (Energy and MSIDs on Actuals)
- P0146: PARMS Serial SP09 (NHH Defaults)
- P0164: PARMS Serial SP07 (SMRA and SVAA MSID Count)

A price has also been provided for the additional work involved in testing MDD if option (b) is chosen for the publication of the Substitution Table.

Note that the Alternative Modification, though it will affect the results of some of the tests, would not increase the overall cost of Operational Acceptance Testing.

Client Acceptance Testing

The changes to the ISRA application will also require Client Acceptance Testing (CAT). ELEXON has recently commissioned Capgemini to undertake a detailed analysis of ELEXON's CAT test pack and calculation tools, to update and modify these and to carry out a baseline test with a view to performing Client Acceptance Testing of future releases of ISRA on ELEXON's behalf. During the course of this work the SVA Agent will gain a more detailed understanding of the test pack. However, at the time of this assessment, the work is at an early stage. The CAT prices shown in this assessment should therefore be regarded as outline estimates only. More accurate prices can be provided once the CAT baseline test has been completed.

Client Acceptance Testing for P213 will involve modifying the calculation tools and restructuring the databases.

An estimated price has been provided for the core changes to ISRA together with options (a) and (c) for distribution of the Substitution Table.

Option (b) would involve transferring the Substitution Table from MDD to ISRA via an electronic interface and an estimated price has been given for the additional testing involved.

Estimated prices have also been given for the additional CAT testing required for the Alternative Modification.

Recommendations for client testing – e.g. SIT, PPT, parallel running etc.:

Given that new versions of some flows are proposed, and that the content of some reports output from ISRA will change, System Integration Testing (SIT) is strongly recommended. However, this assessment does not include a price for SIT as this cannot be determined until the requirements have been specified by ELEXON.

Contractor Documentation Changes

The SVAA Operations Procedures Manual (EP061) and Market Domain Data Management Procedures (EP009) will be updated to include the new procedures.

Assumptions

- CAT testing will be carried out by the SVA Agent on ELEXON's behalf.
- The CAT databases and the DPP and VAR calculation tools used to generate expected CAT results will need to be updated as appropriate to reflect the changes.
- The MDD User Guide currently being prepared by the SVA Agent will need to be updated to reflect the changes in P213. As the User Guide will be a live document in the near future, it is assumed that ELEXON will carry out the necessary updates.

Risks

Options (a) and (c) for the publication of the Substitution Table both require the data to be entered into ISRA via a manual process. Option (b) requires it to be entered manually into MDD. Manual data entry always carries a risk of human error.

Issues

P213 proposes that the new SSC type should be published via version 003 of D0269 and D00270, and version 002 of D0278. It should be noted that version 002 of D0269 and D0270 is still active and used by many market participants. These participants will not receive the new data.

The use of substitute PPCCs may affect the calculation of Average Fractions of Yearly Consumption (AFYCs) within the ISRA application.

Impact on Performance

It is not expected that P213 will affect the performance of the applications. This will, however, be established during Operational Acceptance Testing.

Responsibilities of ELEXON

To provide information on how the Substitution Table will be updated as standing data in ISRA (options (a) and (c)) – e.g. medium, format, volume, frequency etc.

To consider the impact of P213 on the AFYC calculations.

To update the MDD User Guide to reflect the P213 changes.

Recommendations

The Data Transfer Network (DTN) will need to be updated to accommodate the proposed changes to flow contents and version numbers. These changes should be fully tested prior to go-live. Ideally, the DTN should be used as the method of data transfer during System Integration Testing.

Option (b) for the publication of the Substitution Table proposes three alternatives for distribution via MDD flows. One alternative is to create a new version of the D0269 and D0270 flows. As there are already 4 versions of each of these flows, creating a new version of each (which would probably become 2 new versions, one with and one without Regression Data), would over-complicate the MDD distribution process. It is therefore recommended that one of the other options (i.e. either the D0280 flow or a new flow altogether) be chosen if option (b) is selected.

Additional Comments

Section 2.3.1 of the Requirements Specification states that the inclusion of the flag at the TPR level is only required in MDD if option (b) is chosen for publication of the Substitution Table. However, Appendix 2, section A2.1.2, has this as a core change which is required regardless of the option taken. As A2.1.2 covers the requirement in greater detail this has been taken as the definitive version for this assessment.

Attachments

None

PRICING		
Price Breakdown		
Item description	Remarks	Price (ex VAT)
Initial Costs	Core Changes	
	Estimated price for carrying out Operational Acceptance Testing of the core changes, plus options (a) or (c), to ISRA, MDD and the Pool Application.	£31,534
	Estimated price for carrying out Client Acceptance Testing of the Core Changes, plus options (a) or (c) to ISRA, including amending the calculation tools and restructuring the databases.	£54,845
	Total Charge for Core Changes plus options a or c	£ 86,379
	Additional Changes for Publishing the Substitution Table via MDD (option b)	
	Estimated price for the additional Operational Acceptance Testing of ISRA and MDD	£1,003
	Estimated price for the additional CAT testing of ISRA	£502
	Total Additional Charge for Publishing the Substitution Table via MDD	£1,505
	Additional Changes for the Alternative Modification	
	Estimated price for the additional Operational Acceptance Testing of ISRA and MDD	£1,505
On-going Costs	Estimated price for the additional CAT testing of ISRA	
	• Option (1)	Nil
	• Options (2) or (3)	£502
	Total Additional charge for the Alternative Modification	£2,007
	Total Estimated Initial Costs	£ 89,891
	Ongoing operational work to update the Substitution Table in ISRA as standing data.	
	• The first 20 changes in a calendar month	Nil
	• for 21 to 30 changes in a calendar month	£87
	• for 31 to 40 changes in a calendar month	£174
	• for each subsequent 10 changes (or part thereof) there will be an additional charge of £87	

Timescales

An elapsed time of 2 months from receipt of the revised software should be allowed for completion of testing, regardless of the options chosen.

Validity Constraints

None identified.

Authorised Signature

J G Sellen

Date Signed

15/06/07