UNITED ENERGY

Project Justification - Power of Choice – Customer Switching

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Document Review

Reviewer Name	Role	Date
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Document Approval

Approval of the Project Justification for the Power of Choice – Customer Switching project is provided by the signatories shown below.

Changes to this document will be coordinated and approved by the undersigned or their designated representatives via project change management.

The undersigned acknowledge they have reviewed and approved this document.

Approver Name	Approver Title / Role	
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ITEF	IT Executive Forum	
Approved by ITEF - Refer Minutes		Date: December 2015

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to improve timeliness and accuracy. On 10 April 2014, the AEMC issued a Final Report with the following recommendations[1]:

- Confirm that estimated meter reads can be used for the purpose of in-situ customer transfers between retailers;
- Introduce an address standard, which all NMI Standing Data should be consistent with;
- Cleanse the NMI Standing Data, which is contained within the MSATS system;
- Increase monitoring and reporting of statistics associated with the timing and accuracy of the transfer process;
- Confirm and strengthen the obligations on retailers to co-ordinate to resolve erroneous customer transfers; and
- Project to improve the effectiveness of the MSATS framework.

The Customer Switching project will implement processes and system capabilities to support the first four recommendations which are all applicable to United Energy.

2. Objectives/Purpose

In its Final Report, The AEMC highlighted that delays and errors in the customer transfer process are largely attributed to delays in actual meter reads and poor NMI Standing Data quality. In order to address these causes, the Customer Switching project will:

- Enable customer transfer using an estimated read[2];
- Implement the address standard that all NMI Standing Data should be consistent with[3];;
- Implement capabilities to support data quality improvement of NMI Standing Data[4]; and
- Implement reports that will measure accuracy of customer transfers[5].

An improved transfer process will encourage customers to engage with the retail energy market in the long term. This is consistent with the promotion of greater customer choice in retail market engagements.[6]

[1] AEMC Final Report on Review of Electricity Customer Switching, 10 April 2014, Section 2.

[2] AEMC Final Report, Review of Electricity Customer Switching, 10 April 2015, recommendation 1, p5

[3] AEMC Final Report, Review of Electricity Customer Switching, 10 April 2015, recommendation 2, p5

[4] AEMC Final Report, Review of Electricity Customer Switching, 10 April 2015, recommendation 3, p5

[5] AEMC Final Report, Review of Electricity Customer Switching, 10 April 2015, recommendation 4, p5

[6] AEMC Information Sheet on Review of Electricity Customer Switching, 10 April 2014

3. Strategic Alignment

3.1. National Electricity Rules Expenditure Objectives Alignment

This project will be implemented in line with NER Expenditure objectives.

Capital Expenditure Objectives	UE Alignment with Objective
Meet or manage demand for SCS	United Energy is responsible for a number of elements of the NMI Standing Data such as connection point address and network tariff codes which are important to the customer transfer process. This project will comply with the address standards that will be defined in the rule change and initiate annual data cleansing activities to reduce customer transfer errors resulting from poor data quality.
Comply with all applicable regulatory obligations or requirements	The AEMC has recommended that the SCER propose rule changes that would give effect to the recommendations from the Final Report. United Energy will comply with these rule changes when they are implemented.
Where no applicable regulatory obligations or requirements exist, maintain quality, reliability and security of supply	The purpose of this project is to meet regulatory obligations.
Maintain safety of the distribution system	Criterion does not apply to this project.

The recommended option for delivering this initiative has been assessed against the NER's capital expenditure criteria.

Capital Expenditure Criteria	Justification
Efficient cost of achieving the objectives	One of the major recommendations of the review is to improve data quality by performing yearly data cleansing of up to 5% of NMI Standing Data. United Energy will leverage Extract Transform and Load components developed by a recent initiative to build the cleansing capability. This approach will significantly reduce the cost of this project.
Cost that a prudent operator would require to achieve the objectives	United Energy has considered options to support the recommendations from the Final Report and determined that existing functionality for estimation, handling of objection codes to support customer transfer will be extended instead of developing the capability from scratch in order. This option provides the lowest delivery cost.

Capital Expenditure Criteria	Justification
	process changes, at a high level, and order of magnitude of cost to implement these changes.

3.2. UE Strategic Themes Alignment

The primary justification for the Customer Switching project is to meet United Energy's regulatory obligations for the introduction of the Power of Choice reforms.

4. Options

The following options have been considered to implement the Power of Choice – Customer Switching Project:

4.1. Option 0: Do Nothing

Adopting the "Do Nothing" option would result in United Energy not changing its systems and processes to meet requirements of the AEMC. Under this scenario, United Energy would not be able to comply with the National Electricity Rules and the amended procedures.

4.2. Option 1: Modify Existing Systems

United Energy has developed a suite of systems to support the customer transfer process. These sytems could be enhanced to deliver the additional capabilities required by the Power of Choice reforms related to customer switching.

4.3. Option 2: Implement New Systems

The new systems options would involve the development of new systems to specifically support customer switching and integrating these new systems to existing customer, market and metering systems. It is envisaged that this project would be of significantly higher cost. Cloud based providers could be considered in this evaluation.

5. Economic Evaluation

The Economic Evaluation table below is the result from the "Business Case Output" from the "Financial Evaluation Spreadsheet Version 1.3". This is United Energy's Capital Project Evaluation tool. The tool comes with standard parameters and these are protected and cannot be altered.

The tool ranks the project based on Least Cost (Net Present Value). The least cost project will have a Project Ranking of 1.

	"Status Quo" Reference Case	Option 1: Modify Existing Systems	Option 2: Implement New Systems
Net Capex ($)	$0	$1,207,000	$1,810,500
Opex ($)	$0	$0	$799,585
STPIS ($)	$0	$0	$0
Loss of F Factor Benefit	$0	$0	$0
Risk*** ($)	$0	$0	$0
Least Net Cost ($) (PV)		$1,207,000	$2,610,085
Project Ranking		1	2

5.1. Economic Evaluation Recommendation

Option 1 is preferred as it delivers a superior benefit-cost outcome with a CAPEX cost of $1.2M and meets the regulatory requirements. Further evaluation will be in the final business case once the detailed requirements are developed..

5.2. Benefits Summary

The Customer Switching project ensures United Energy complies with the rule/procedural changes that will be recommended by SCER.

In addition to meeting its regulatory obligations, this project also delivers data cleansing capabilities and improved data quality which will benefit other areas of United Energy. Better data will result in reduced processing exceptions exceptions across industry and will improve the success rate of customer retail transfers..

6. Proposed Solution

Option 0 was not selected as this option does not meet the requirements and would result in United Energy being unable to fully participate in the National Electricity Market. United Energy is obliged under its licence to adhere to the National Electricity Rules. It is considered that selecting this option may place United Energy's licence at risk.

Option 2 was not selected as this has a higher cost and higher risk than Option 1. The proposed capabilities required are similar to those implemented in United Energy's existing systems therefore it is expected that these systems could be modified to support the new capabilities at a lower cost than complete replacement. Cloud solutions are not available to meet the specialised functional and integration requirements.

6.1. Requirements

The status of the rule changes for Customer Switching are:

- Final report on Electricity Customer Switching was delivered on 10 April 2014.
- AEMC has recommended that SCER propose rule changes that will give effect to the recommendations contained in the AEMC Final Report. The SCER has not yet published the rule changes. United Energy understands that COAG has written to AEMO to progress a staged implementation of these arrangements.

This project is to meet the following requirements:

- Enable completion of in-situ customer transfer using estimated reads[7]
- Generate and validate estimated reads based for retailer transfer requests on an estimated read[8].
- Define a dispute process when the estimated reads produced are +/- 200kWh that the estimate calculated by the losing or winning Retailer. This process is most likely to leverage the current Verify Meter Data process[9].
- Bill the losing Retailer using the estimated read. No cancel and re-bill is required once this has occurred, even when an actual read is taken after the transfer[10].
- Continue to provide the option of completing Retailer Transfers using actual reads to be taken on the Next Scheduled Read Date or through a Special Read when requested by the winning Retailer.

[7] AEMC Final Report, Review of Electricity Customer Switching, 10 April 2015, item 4, p38

[8] AEMC Final Report, Review of Electricity Customer Switching, 10 April 2015, item 5, p38

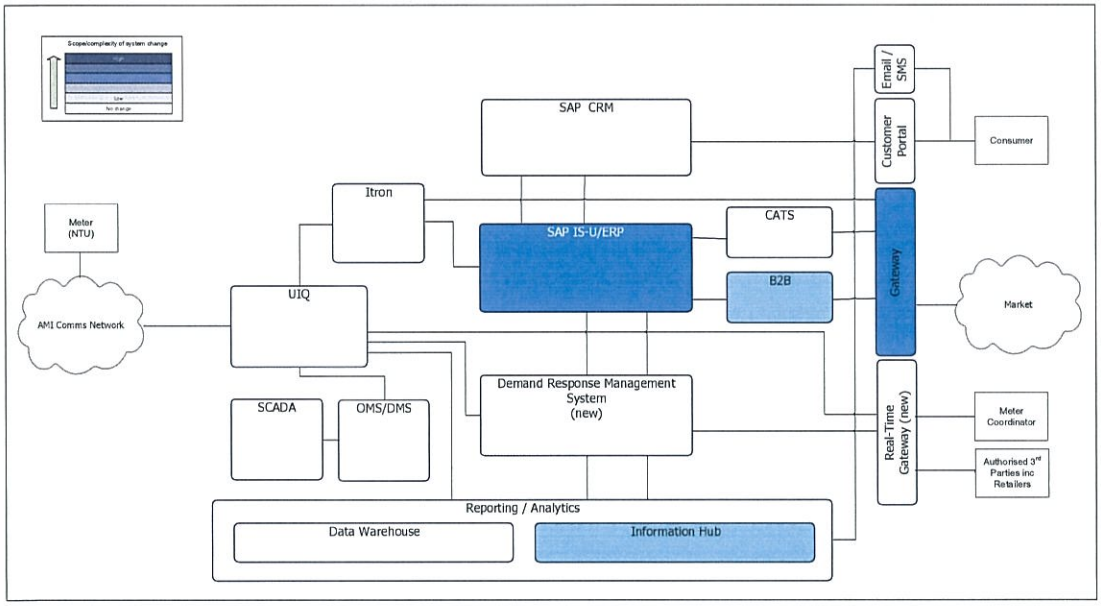
[9] AEMC Final Report, Review of Electricity Customer Switching, 10 April 2015, item 8, p38

[10] AEMC Final Report, Review of Electricity Customer Switching, 10 April 2015, item 9, p38

- Maintain connection point address data for all United Energy sites based on a standard to be defined by AEMO. United Energy's connection point address data is based on Australia Post standard.
- Perform reconciliation, determine the correct address for a connection point, and publish the correct address to MSATS in line with the standard to be defined by AEMO.
- Update MSATS when a connection point address is created or updated using a transaction to be defined by AEMO.
- Update MSATS connection point address data when requested by valid market participant.
- Implement changes related to Objection Codes to be defined by AEMO
- On-going Cleanse MSATS NMI Standing Data

6.2. Solution Overview

The proposed solution leverages United Energy's existing customer, market and metering systems. The introduction of an improved customer switching capability will require changes to United Energy's SAP (ISU). New market transactions will be implemented using Webmethods A2A and B2B infrastructure.



6.3. Assumptions

The solution proposal assumes the following.

- Detailed requirements have not been developed at this stage. It has been assumed, based on the Final Report, that the capabilities for improved customer switching can be

- The standard format for addresses is the Australia Post Standard.

6.4. Systems Impacted

The following table identifies the systems impacted.

System	Processes	Impact
Connection Point Management	NMI Standing Data – Data quality	Develop Extract Transform and Load jobs to support improvement of NMI Standing Data quality. Implement new connection point address standard. Improve handling of objection based .
Meter Data Management	NMI Standing Data – Data quality	Generate and validate estimated read to support customer transfer between retailers. This applies to both meter data management system for Type 6 and Type 5 MRIM.
Market Apps	B2B, CATS, Gateway	Receive and validate transfer read requests with the option of providing an estimate read.
Reporting	Reporting to support recommendations	Develop reports on customer transfer accuracy. Develop reports for data cleansing results/ data quality improvements.
E2E	Additional Testing	Testing to ensure United Energy handles customer transfer correctly. Testing to ensure NMI standing data updates performed are reflected in MSATS. Testing to ensure auto updates to rectify data issues are performed correctly.
Tech Arch	Infrastructure, DevOps	

No change	Low	Med	High	V. High

6.5. Project Plan

It is anticipated that requirements and market procedures for improved customer switching will be finalised during 2016 and enabling this project to be delivered during 2017.

It is planned that the project delivery will be governed by United Energy's Project Delivery Framework and that integration services will be competitively procured from United Energy's IT Systems Integration panel.

7. Outputs

reforms.

- Conversion and cleansing of data from existing systems.
- Testing of system and process changes with AEMO and other market participants.

8. Project Capital Costs

Cost Category	Amount (A$)	Source / Explanation
Labour	$ 1.1M	Labour covers the resources required for the full project implementation. It includes resources to carry out the the complete system development and requisite Business and IT change management initiatives.
Hardware (application specific)	$ 0.0M	Assume that no additional hardware is required.
Software	$ 0.0M	Assume existing systems to be modified to meet new requirements.
Security	$ 0.0M	No additional information security requirements.
PMO	$ 0.1M	Program Management Office and IT Capital Overheads
TOTAL	**$ 1.2M**	

Estimates are based on assessment of impacts on systems to be modified to meet the required functionality. Requirements for the estimates are derived from the AEMC Power of Choice review.

9. Operating Cost Impact

As this project does not introduce new systems, it is not expected to have a material impact on IT operational cost. It is expected that additional market transactions as a result of an improved customer switching process may result in some additional business cost.

10. Risks and Opportunities

Risk	Cause	Impact
Failure to deliver required capability	• Requirements not well defined or understood. • Project scope not well understood. • Poor project delivery methodology • Project team skills not appropriate to task.	• Benefits to consumers not realised. • United Energy's reputation diminished. • Potential market disruption. • Additional cost
New address format may be difficult to implement.	• Difficult to map existing addresses to new format. • Consumer backlash	• Potential market disruption. • Additional cost

Appendices

Req't ID	Description
PJ16-01	**Enable completion of Retailer Transfer CRs using estimated reads under the following scenario:**
PJ16-01.01	• Transfer request is in-situ (consumer changes retailer but remains in the same property);
PJ16-01.02	• Meter is manually read (Type 6 Basic of Type 5 MRIM); and
PJ16-01.03	• Immediate previous meter read was an Actual read.
PJ16-02	**Generate and validate estimated reads based on an algorithm defined by AEMO for retailer transfer requests on an estimated read.**
PJ16-03	**Define a dispute process when the estimated reads produced are +/- 200kWh that the estimate calculated by the losing or winning Retailer. This process is most likely to leverage the current Verify Meter Data process.**
PJ16-04	**Bill the losing Retailer using the estimated read. No cancel and re-bill is required once this has occurred, even when an actual read is taken after the transfer.**
PJ16-05	**Continue to provide the option of completing Retailer Transfers using actual reads to be taken on the Next Scheduled Read Date or through a Special Read when requested by the winning Retailer.**
PJ16-06	**Maintain connection point address data for all United Energy sites based on a standard to be defined by AEMO. United Energy's connection point address data is based on Australia Post standard.**
PJ16-07	**Perform reconciliation, determine the correct address for a connection point, and publish the correct address to MSATS in line with the standard to be defined by AEMO.**
PJ16-08	**Update MSATS when a connection point address is created or updated using a transaction to be defined by AEMO.**
PJ16-09	**Update MSATS connection point address data when requested by valid market participant.**
PJ16-10	**Implement changes related to Objection Codes to be defined by AEMO. Most likely this will include:**
PJ16-10.01	• Introduction of new codes and supporting free texts;
PJ16-10.02	• Rationalisation of existing codes to remove ambiguity of their purpose; and
PJ16-10.03	• Retiring of existing codes that are no longer relevant.
PJ16-11	**Perform on-going cleansing of MSATS NMI Standing Data.**

Req't ID	Description
PJ16-11.01	• Define an annual process to extract MSATS Data that will be used to compare against United Energy source system data. Where possible, leverage the bulk extracts provided by MSATS.
PJ16-11.02	• Audit and cleanse 5% of NMI Standing Data in MSATS per year where United Energy is the responsible party. As a priority, Address, Network Tariff Code, and Next Scheduled Read Dates be given top priority.
PJ16-11.03	• Implement a continuous improvement process focusing on improving MSATS data quality.
PJ16-11.04	• Report on the data cleansing plan and results.
PJ16-12	**Capture customer transfer data and develop reports that will contain the following:**
PJ16-12.01	• average length of time for a small customer transfer request to complete;
PJ16-12.02	• average length of time for a large customer transfer request to complete;
PJ16-12.03	• the number of special meter read attempts for a site in relation to a retailer transfer;

Appendix B – Process Impacts

ID	Description	New/Modify
PJ16-P01	Annual process of requesting MSATS Bulk Data to support data cleansing activities.	New
PJ16-P02	Annual process of identifying and cleansing NMI Standing Data .	New
PJ16-P03	Report to AEMO - Data Cleansing Plan and Results.	New
PJ16-P04	Meter Read Dispute - inclusion of estimated reads for the Transfer. Current meter data disputes expected to increase as a result of using estimates.	Modify
PJ16-P04	Billing Dispute - inclusion of estimated reads for the Transfer. Current billing disputes expected to increase as a result of using estimates for transfers, especially from the losing Retailer.	Modify

Appendix C - References

http://www.aemc.gov.au/getattachment/01ec1407-d9df-4dd6-9215-593692abb14a/Final-Report.aspx

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