



Project Justification - Power of Choice - Consumer Data Access

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Document Review

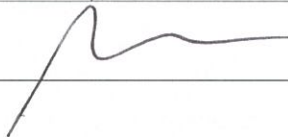
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Document Approval

Approval of the Project Justification for the Power of Choice Power of Choice - Consumer Data Access 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.

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1. Project Description

The Consumer Data Access project will implement necessary processes and system capabilities to allow consumers to obtain their energy usage information and enable them to provide explicit and informed consent to allow third parties to obtain their usage data on their behalf.

This project is required to meet United Energy's obligations arising from the new rules introduced on 1 December 2014 following recommendations made by the AEMC in its Power of Choice review that will:

- Allow customers and customer authorised representatives (third party organisations and retailers) to obtain their electricity consumption data from Distribution Network Service Providers (DNSP) and Retailers;
- Require Retailers and DNSPs to comply with minimum requirements relating to the format, time frames and reasonable charges when a customer, or a party authorised by that customer, requests their electricity consumption data.

The new Metering Data Provision Procedures (MDPP) developed by AEMO reflecting the regulatory minimum requirements for the implementation of this rule were published on 1 September 2015, and come into effect on 1 March 2016.

2. Objectives/Purpose

The purpose of Consumer Data Access project is to meet United Energy's obligations defined in the new MDPP which will take effect from 1 March 2016. The MDPP applies when United Energy responds to consumption data requests from retail customers or their authorised representatives under NER 7.7(a) (7).

This obligation applies to all metered customers regardless of meter type and customer size. United Energy currently only has customer portal capability for United Energy installed Victorian AMI meters.

In addition, the project needs to maintain compliance with the Victorian regime for data delivery that is already in place. The current Victorian AMI Tariffs Order¹ requires United Energy to provide at least 12 months or up to 2 years interval data to residential and small business customers (sub 40MWhpa) on request by the customer or the customer's authorised representative. United Energy must provide one free request in any 12 months.

United Energy currently provide data for AMI type 5 meters in one of the Victorian formats so that customers can utilise the Victorian Government websites electricity retail price comparator service. We understand that the Victorian Government is consulting on a move to a single format consistent with the AEMO MDPP data format, however if this arrangement does proceed, the Victorian Government position and amendments to the Victorian AMI Tariffs Order would not be available until February/March 2016. United Energy is progressing its internal project on the basis that both formats will have to be available for some transition period.

¹ Victoria Government Gazette, No. S 216 Wednesday 19 June 2013, ADVANCED METERING INFRASTRUCTURE (AMI TARIFFS) ORDER

To ensure United Energy is compliant with the rule change, the project will deliver capabilities to

customers and customer authorised representatives and the relevant consents²,

- Enable automated and manual requests for data to be raised with United Energy by a customer or the customer's authorised representative³;
- For each request ensure that there is sufficient information to verify the customer at the premise, verify the customer's relationship with the authorised representative and meet any applicable privacy legislation requirements, including obtaining customers consent for disclosure of confidential information⁴;
- Where there is insufficient data to verify the customer then United Energy must respond to the customer within a certain period of receiving the request⁵;
- Ensure that the process establishes whether the request is made under the NER or under the Victorian Tariff Order so the correct data format is utilised⁶. Where the request is made under the NER, United Energy must provide summary and detailed data formats consistent with the new MDPP⁷;
- United Energy must action and respond to requests within certain timeframes⁸;
- United Energy must provide summary data electronically or physically to the retail customer or customer authorised representative whichever is requested. Electronically provided summary data must be in PDF format unless otherwise agreed with the requesting party⁹;
- United Energy must provide the detailed data electronically to the retail customer or customer authorised representative whichever is requested. Electronically provided detailed data must be in CSV format unless otherwise agreed with the requesting party¹⁰;
- Where a retail customer or customer authorised representative request an alternative format that does not meet the minimum requirement of these MDPP, United Energy may provide it. United Energy must obtain consent before providing an alternative format¹¹
- Where a retail customer or customer authorised representative request an alternative format that exceeds the minimum requirement of these MDPP, United Energy may provide it¹²;

² AEMO, Meter Data Provision Procedures, 1 September 2015, clause 2.1 (a)

³ NER 7.7 (a) (7)

⁴ NER 7.7 (a1)

⁵ AEMO, Meter Data Provision Procedures, 1 September 2015, clause 2.1 (c) to (g)

⁶ NER 7.16 (d)

⁷ AEMO, Meter Data Provision Procedures, 1 September 2015, clause 4.2,4.3 and 4.4

⁸ AEMO, Meter Data Provision Procedures, 1 September 2015, clause 2.3

⁹ AEMO, Meter Data Provision Procedures, 1 September 2015, clause 3.1

¹⁰ AEMO, Meter Data Provision Procedures, 1 September 2015, clause 2.1 (c) to (g)

¹¹ AEMO, Meter Data Provision Procedures, 1 September 2015, clause 4.5 (a)

¹² AEMO, Meter Data Provision Procedures, 1 September 2015, clause 4.5 (b)

- United Energy must make a customer guide available to assist retail customers to understand and interpret alternative detailed interval data formats.¹³
- United Energy must also implement data management and reporting activities to enable reporting against the obligations.

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 Project Alignment with Objective |
|--|---|
| Meet or manage demand for SCS | <p>Requests can be individual or bulk data requests. Volumes of requests is expected to increase with new tariff arrangements and with the creation of new energy analysts who are seeking to assist customers to better understand their usage and reduce their bills.</p> <p>This project is to expand United Energy's current capability for provisioning of interval data to small customers. The new requirements are for all meter types – accumulation meter and interval meter, the requirements also require different Data streams in files where meters have been re-configured. The new rules are likely to increase business customer requests for data.</p> |
| Comply with all applicable regulatory obligations or requirements | United Energy is required to provide data to customers and customer authorised representatives after having met privacy and relevant consent requirements ¹⁴ . United Energy is also required to comply with the new Meter Data Provision Procedure. ¹⁵ |
| 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. |

¹³ AEMO, Meter Data Provision Procedures, 1 September 2015, clause 4.5 (d) (e) – (e)

¹⁴ NER 7.7 (a1)

¹⁵ NER 7.16 (d)

The recommended option for delivering this initiative has been assessed against the NFR's

| | |
|---|--|
| <p>Efficient cost of achieving the objectives</p> | <p>In determining the proposed solution United Energy considered the cost of a largely manual solution (using its contact centre to capture requests and initiate processes to produce the required output for customer consumption) and compared this with a self-service solution utilising existing processes used for meeting the Victorian AMI Tariffs Order.</p> <p>The proposed solution, a combination of self service and manual requests was determined to be the most cost-effective required to meet the objectives (reference PJ15)</p> |
| <p>Cost that a prudent operator would require to achieve the objectives</p> | <p>As a prudent operator United Energy balanced the forecast cost of a basic manual solution to meet the NER objectives against that of a fully automated self-service solution designed specifically to meet the new requirements. The proposed solution provides the most cost effective solution, utilising existing portal capability and enhancements to existing systems and processes.</p> |
| <p>Realistic expectation of demand and cost inputs required to achieve the objectives</p> | <p>Based on current customer requests and given the Power Of Choice reforms, an increasing awareness and interest in consumption data, United Energy has estimated that the volume of requests will increase. Cost estimates are based on extending the existing automation for high volume transactions and improved manual processing for lower volume transactions.</p> |

3.2. UE Strategic Themes Alignment

The primary justification for the Consumer Data Access project is to meet United Energy's regulatory obligations for the introduction of the Power of Choice - customer access to their consumption information.

In addition, the capabilities delivered by this project serves as foundational capabilities to support interactions between United Energy and consumers or other third parties. Currently United Energy's systems are connection point and asset centric. One of the key capabilities required for Consumer Data Access project is the recording and validation of consumer or consumer agent information. Such capability will be made possible by introducing new consumer-centric processes and data entities in United Energy's IT landscape.

The data entities and capabilities that will be developed by Customer Data Access project will be leveraged by other projects that require direct consumer interactions such as the initiative for connecting Embedded Generators.

4. Options

The following options have been considered to implement the Power of Choice – Consumer Data Access 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 the requirements of the new National Electricity Rule (NER) 7.16. Under this scenario, United Energy would not meet its obligations to comply with the new metering data provision procedure as required by NER 7.16 (d).

4.2. Option 1: Modify Existing Systems

United Energy has developed a customer portal to provide AMI metered consumers with the ability to download energy usage information to make use of the Victorian “Energy Compare” website. This customer portal could be enhanced to deliver the additional capabilities required by the customer access to information about their energy consumption rules, including extending this to all meter types and developing the necessary standard data formats.

4.3. Option 2: Implement New Systems

The new systems options would involve the replacement of United Energy's existing customer portal.

5 Economic Evaluation

Evaluation tool.

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 | \$2,528,000 | \$3,792,000 |
| Opex (\$) | \$0 | \$1,139,425 | \$3,349,381 |
| STPIS (\$) | \$0 | \$0 | \$0 |
| Loss of F Factor Benefit | \$0 | \$0 | \$0 |
| Risk*** (\$) | \$0 | \$0 | \$0 |
| Least Net Cost (\$) (PV) | | \$3,667,425 | \$7,141,381 |

| | | | |
|------------------------|--|---|---|
| <i>Project Ranking</i> | | 1 | 2 |
|------------------------|--|---|---|

5.1. Economic Evaluation Recommendation

Option 1 is preferred as it delivers a superior benefit-cost outcome with a CAPEX cost of \$2.5M and meets the regulatory requirements. Further evaluation will be performed and documented in the final business case.

5.2. Benefits Summary

The Consumer Data Access project provides a key foundation for the Power of Choice reforms. This project enables consumers to obtain their energy usage information and use this information to obtain competitive prices from retailers and to change their usage pattern to reduce their energy costs. This will lead to lower prices for consumers. These reforms are expected to improve the efficiency of network investment that will ultimately result in lower prices for consumers than would otherwise be the case.

6. Proposed Solution

It is proposed to select Option 1, Modify Existing Systems, to provide consumer access to energy usage information to support the Power of Choice reforms. Option 1 is considered to be the least cost and lowest risk solution that provides the necessary capabilities.

Option 0 was not selected as this option does not meet the requirements and would result in United Energy being unable to comply with Rule 7.16. 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. It is also considered that it is not feasible to meet consumer protection and security requirements and expected volumes without automated solutions.

Option 2 was not selected as this is expected to be a higher cost and higher risk than Option 1. The proposed capabilities required are similar to those implemented for the Victorian AMI program therefore it is expected that existing 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 current status of rule changes for the Consumer Data Access is:

- Final rule determination was published 6 November 2014
- Rule came into effect on 1 December 2014
- New Meter data provision procedures come into effect on 1 March 2016.

This project is to meet the following requirements:

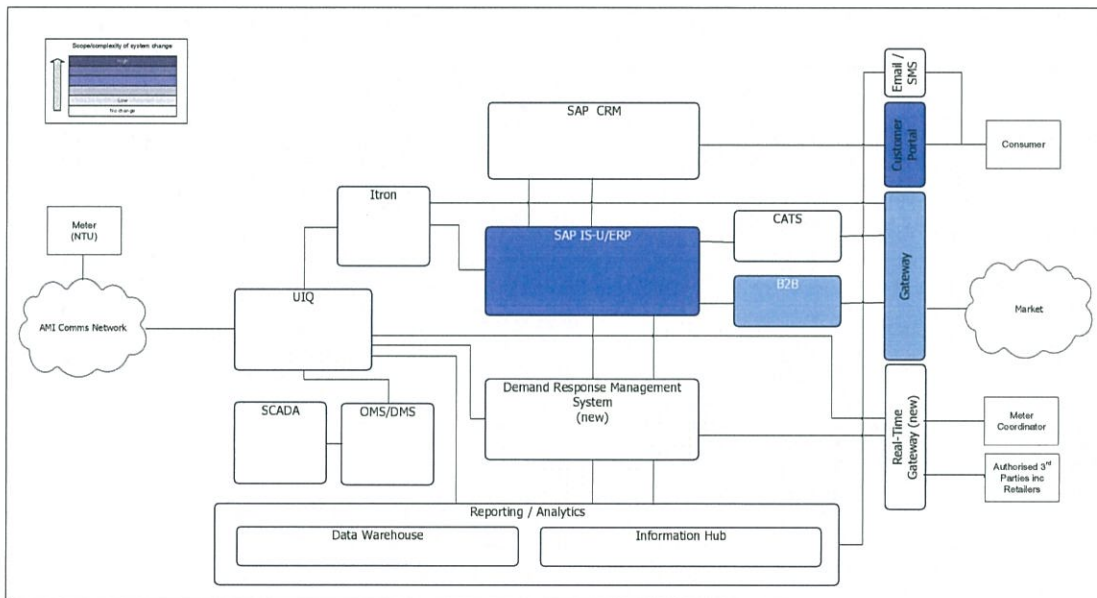
- Provide functionality for consumers and consumer authorised representatives to register their account online and manage an account.
- Provide functionality for customers and customer authorised representatives (CAR) to make single or bulk requests for meter data for all meter types (except type 7) with verification information.
- Provide functionality to validate the identity of customers and their right to the requested data and respond to requests that failed validation.
- Present extracted data in the format in compliance with the AEMO MDPP (Meter Data Provision Principles)
- Respond to requests in the manner specified in the AEMO MDPP
- Provide the ability to manage data collected from customers and reporting
- Provide customers and CARs access to user guide to understand the meter data response file
- Determine and apply charges to customers' requests and manage payments.
- Ensure that the Privacy Act 1988 (Commonwealth) amended by the Privacy Amendment (Enhancing Privacy Protection) Act 2012 obligations have been met.
- The privacy legislation must be applied to the extent that meter data is personal information

- Terms and Conditions need to be displayed and acceptance from all customers and

As this project provides access to consumer's data via the internet a higher level of security is required to ensure consumers data is secured from unauthorised access.

6.2. Solution Overview

The proposed solution leverages United Energy's existing customer, market and metering systems. The Consumer Data Access project will require changes to United Energy's Customer Portal, SAP (ISU & CRM) and WebMethods A2A and infrastructure.



6.3. Assumptions

The solution proposal assumes the following.

- Detailed requirements will need to be met for the new rule and data formats for the existing Victorian Energy Compare price comparator website will also need to be met;
- Requirements for consumer data will be limited to that which is held in United Energy's systems;
- Although new software will not be required, the existing customer portal will require significant rework; and
- Security of consumer's data is a priority.

6.4. Systems Impacted

The following table identifies the United Energy systems impacted by this project.

| System | Processes | Impact |
|------------------------------|--|---|
| Consumer Portal | Consumer and consumer authorised representative engagement | Significant change to support the consumer and agent interactions – from registration right through to fulfilment of requests. |
| Meter Data Management System | Provisioning of consumption data as per the new MDPP. | Develop functionality to support provisioning of data for all meter types. Each request can be single or multiple NMIs of different meter types. Changes will be required in both meter data management systems – interval and cumulative. |
| Data Warehouse | Consumer information against a connection point. | Develop data warehouse capability to support keeping historical data of consumers and authorised representatives for each connection point. This data will be used to validate if a consumer or an agent is entitled to the data being requested. |
| End to End Integration | Integration between impacted applications. | Develop new or changed interfaces to support the integration between the consumer portal, data warehouse, and meter data management systems – both interval and cumulative meters. |
| Tech Arch | Infrastructure and Information Security | Implement new security framework and infrastructure to ensure consumer and consumer agent information is secured. |
| Data Model | Consumer and consumer agent information | Introduction of new data entities to support recording and maintenance of consumer and consumer agent information |

| | | | | |
|-----------|-----|-----|------|---------|
| No change | Low | Med | High | V. High |
|-----------|-----|-----|------|---------|

6.5. Project Plan

The new Rules were effective 1 December 2014 and AEMO finalised the new procedure, including new data formats on 1 September 2015. United Energy needs to comply with these new procedures from 1 March 2016.

Due to the imminent implementation of the new procedures, the project will be delivered in two phases:

- **Phase 1 full compliance, limited automation** (December 2015 – March 2016) – The project will develop manual processes and some automation that will enable United Energy to meet the new rule requirements. It is anticipated that the volume of consumer data requests will be low during the first 3-4 months of implementation.
- **Phase 2 full compliance, additional automation** (March 2016 – September 2016) – Develop system functionality to support additional automation in preparation for increased volume of consumer data requests. Improved customer registration capabilities.

It is planned that the project delivery will be governed by United Energy's Project Delivery

7. Outputs

The project will deliver the following:

- Changes to systems and processes that enable United Energy to meet its regulatory obligations in relation to the new Rules.
- Testing of system and process changes with consumers and authorised third parties.

8. Financial Assessment

| Cost Category | Amount (A\$) | Source / Explanation |
|---------------------------------|----------------|---|
| Labour | \$ 2.2M | Labour covers the resources required for the full project life cycle. It includes resources to carry out the complete system development lifecycle and requisite Business and IT change management initiatives. |
| Hardware (application specific) | \$ 0.05M | Assume that minimal additional hardware is required. |
| Software | \$ 0.05M | Assume existing systems to be modified to meet new requirements – minimal additional software required |
| Security | \$ 0.05M | Focus on security of consumers data and minimise risk of unauthorised access. |
| PMO | \$ 0.15M | Program Management Office and IT Capital Overheads |
| TOTAL | \$ 2.5M | |

Estimates are based on assessment of impacts on systems to be modified to meet the required functionality.

9. Operational 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 may result in some additional business cost. The IT increase in annual opex is estimated at \$0.3M refer to United Energy's EDPR Opex Proposal - Opex step change 1c for details.

10. Risks and Opportunities

| Risk | Cause | Impact |
|--|---|---|
| Failure to deliver required capability | <ul style="list-style-type: none"> Project scope not well understood. Poor project delivery methodology Project team skills not appropriate to task. | <ul style="list-style-type: none"> Benefits to consumers not realised. United Energy's reputation diminished. Compliance impact Additional cost |
| Enhanced capabilities of the customer portal may increase risk of security breach. | <ul style="list-style-type: none"> Design (particularly related to third party access) is flawed Inadequate security testing | <ul style="list-style-type: none"> United Energy's reputation diminished Private information may be inappropriately disclosed, compliance issue |

The table below lists the high level requirements for this project.

| Req't ID | Description |
|------------|---|
| PJ15-01 | Provide functionality for customers and customer authorised representatives to register their account online and manage an account. |
| PJ15-02 | Provide functionality for customers and customer authorised representatives (CAR) to make single or bulk requests for meter data for all meter types (except type 7) with verification information. |
| PJ15-03 | Provide functionality to validate the identity of customers and their right to the requested data and respond to requests that failed validation. |
| PJ15-04 | Present extracted data in the format in compliance with the AEMO MDPP (Meter Data Provision Principles) |
| PJ15-05 | Respond to requests in the manner specified in the AEMO MDPP |
| PJ15-06 | Provide the ability to manage data collected from customers and reporting |
| PJ15-07 | Provide customers and CARs access to user guide to understand the meter data response file |
| PJ15-08 | Determine and apply charges to customers' requests and manage payments. |
| PJ15-09 | Ensure that the Privacy Act 1988 (Commonwealth) amended by the Privacy Amendment (Enhancing Privacy Protection) Act 2012 obligations have been met. |
| PJ15-10 | The privacy legislation must be applied to the extent that meter data is personal information |
| PJ15-11 | Terms and Conditions need to be displayed and acceptance from all customers and customer authorised representatives be enabled. |
| PJ15-12 | Provide user access roles which limit functionality to appropriately authorised and trained user groups, including: |
| PJ15-12.01 | <ul style="list-style-type: none"> Service Desk agents, Back Office & SMEs |
| PJ15-12.02 | <ul style="list-style-type: none"> Retail Customers |
| PJ15-12.03 | <ul style="list-style-type: none"> Customer Authorised Representatives |
| PJ15-12.04 | <ul style="list-style-type: none"> Compliance Analysts |
| PJ15-13 | Validate data fields during Information Capture for accuracy. This includes: |
| PJ15-13.01 | <ul style="list-style-type: none"> Mandatory fields are completed |
| PJ15-13.02 | <ul style="list-style-type: none"> NMI Format |
| PJ15-13.03 | <ul style="list-style-type: none"> Phone Number format |

Appendix B – Process Impacts

The following United Energy processes will be impacted by this project.

| ID | Description | Notes |
|----------|--|---|
| PJ19-P01 | MD03 – Publish Meter Data | Extend to include publishing of meter data in response to validated requests for connection points on United Energy's Network (including meters that United Energy is not the MDP for). |
| PJ19-P02 | CP8 - Manage Customer Details | Backfilling of customer details for each site (past 2 years) Backfilling of customer details for each site (past 2 years) |
| PJ19-P03 | RM1.3 – Calculate Service Charges | Inclusion of charges relating to Customer Access to Data, where a request for historic data has been submitted multiple times in the same year. |
| PJ19-P04 | RM1.8 – Generate Revenue Accrual and G/L Posting | Include charges related to Customer access to Data, which can be billed to the CAR or the Customer. |
| PJ19-P05 | RM1.12 – Manage Network Billing Disputes | Manage customer disputes and complaints related to CAD charges. (Also included in customer portal process) |
| PJ19-P06 | RM1.14 – Manage Network Receivables | Include charges related to Customer access to Data, which can be billed to the CAR or the Customer. |
| PJ19-P07 | RM1.15 – Monitor Outstanding Charges | Include charges related to Customer access to Data, which can be billed to the CAR or the Customer. |
| PJ19-P08 | Individual or Business Registration | Customer registration and verification, Customer authorised representative registration. Enable creation of business super group, and creation of accounts for United Energy business users. |
| PJ19-P09 | Individual or Business Verification | Customer registration and verification, Customer authorised representative verification |
| PJ19-P10 | Handling of Enquiries and Support Requests | Capturing and verification of customer consent. Provide support to users of CAD functionality. Volume or requests likely to increase as uptake to CAD increases. |
| PJ19-P11 | Terms and Conditions of UE Interactions | Review and update terms and conditions for Energy Easy Portal. |

Appendix C – References:

Information Sheet

<http://www.aemc.gov.au/getattachment/d7573841-d1ee-4e43-a467-06d1d01742cf/Information-Sheet.aspx>

Final Determination

<http://www.aemc.gov.au/getattachment/a816abd5-4903-4fb2-aa6e-55d23fdd7e39/Final-determination.aspx>

Final Rule

<http://www.aemc.gov.au/getattachment/0599342d-d0b4-44f0-9ac8-247fbd158bf/Final-Rule---NER.aspx>

AEMO Meter Data Provision Determination and AEMO Meter Data Provision Procedure

<http://www.aemo.com.au/Consultations/National-Electricity-Market/Metering-Data-Provision-Procedures>

End of Document

