UNITED ENERGY

Project Justification - Power of Choice – Network Pricing

Document Name	Power of Choice Network Pricing
Reference	PJ21
Version	2.0
Issue Date	17 December 2015
Owner	Basile Sepsakos
Author	Tony Chenco

Document Control

Change History

Version	Date Issued	Issued By	Comments
1.0	16 March 2015	Tony Chenco	Issued
2.0	17 December 2015	Tony Chenco	Updated document to support EDPR re-submission

Note: Printed copies of this document are uncontrolled.

Document Review

This document has been reviewed by the following parties prior to approval:

Reviewer Name	Role	Date
Verity Watson	Manager Regulatory Strategy	15/12/2015
Kellie Mayne	Head of Customer and Market Operations	15/12/2015

Document Approval

Approval of the Project Justification for the Power of Choice – Network Pricing 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	
Basile Sepsakos	Head of Information Technology as Delivery Owner	
Signature:		Date: 17/12/15

Approver Name	Approver Title / Role	
Alistair Legge	General Manager, Customer & Technology as Business Sponsor	
Signature:		Date: 17/12/15

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

Table of Contents

1. Project Description

On 27 November 2014, the AEMC completed its Final Determination on National Electricity Amendment (Distribution Network Pricing Arrangements) Rule 2014 which requires network prices to reflect the costs of providing services to individual consumers so that they can make more informed decisions about their electricity usage.

This rule change, which will take effect from 1 January 2017, is part of the Power of Choice reform program to help consumers participate more effectively in energy markets.

The Network Pricing project will enable United Energy to set network structures and prices that align with the new pricing principles defined in the new rule[1]:

- Each network tariff must be based on the long run marginal cost of providing the service;
- The revenue to be recovered from each network tariff must reflect the network business' total efficient costs of providing services to the consumers assigned to that tariff;
- Distribution businesses must also give effect to a consumer impact principle when developing their tariffs; and
- Network tariffs must also comply with any jurisdictional pricing obligations imposed by state or territory governments.

On 25 September 2015, United Energy, in accordance with the Final Rule, submitted a Tariff Structure Statement (TSS) for the pricing period commencing 1 January 2017.

2. Objectives/Purpose

The Network Pricing project enables United Energy to comply with the Final Rule as part of the Power of Choice reforms.

This project delivers systems and processes to implement the following capabilities:

- Implementation of new cost reflective tariff structures, including capacity (demand) based tariffs)[2]; and
- Provide reporting to measure performance of cost reflective tariff structures.

These capabilities will be used by United Energy when developing and setting its annual pricing proposals to the AER. The new reporting capabilities will also enable United Energy to amend its TSS during the regulatory control period where a change to the TSS would result in outcomes that better meet the pricing principles.

[1] AEMC Final Rule Determination, National Electricity Amendment (Distribution Network Pricing Arrangements) Rule 2014, 27 Nov 2014

[2] NER 6.18.5 (f)

3. Strategic 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 network tariffs that will be made available to consumers within its distribution network. This project will enable United Energy to define new tariffs that comply with the new pricing principles. These principles align prices to the long run marginal cost of providing the service.
Comply with all applicable regulatory obligations or requirements	United Energy has submitted its TSS for prices from 1 January 2017. The TSS has taken into account the new pricing principles defined in the Final Rule. This project will develop capabilities to set network prices that are in line with the TSS.
Where no applicable regulatory obligations or requirements exist, maintain quality, reliability and security of supply	The purpose of this project is to meet rule changes.
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	The processes and system capabilities that will be implemented by this project will build on those that are currently used by United Energy in order to minimise the cost to comply with the new pricing principles. Although United Energy has implemented new tariffs in the past, this is a complex and labour intensive activity. The introduction of demand (capacity) components in the tariffs will result in further complexities and significant effort and cost.
Cost that a prudent operator would require to achieve the objectives	This project is in response to a rule change which United Energy needs to comply. As the modelling and monitoring of network prices involve large volumes of data, automation is necessary hence costs will be incurred.
Realistic expectation of demand and cost inputs required to achieve the objectives	The rule change is final and the new tariffs will take effect from 1 January 2017. There is sufficient information in the rule change to determine the changes required by United Energy on its systems and processes in order to comply with the change.

3.2. UE Strategic Themes Alignment

The primary justification for the Network Pricing project is to meet United Energy's regulatory obligations arising from the new rule finalised by AEMC on 27 November 2014

4. Options

The following options have been considered to implement the Power of Choice – Network Pricing 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 new network pricing rules. Under this scenario, United Energy would not meet its obligations to comply with the National Electricity Rules.

4.2. Option 1: Modify Existing Systems

United Energy's existing customer, market and metering systems were recently implemented and modified to support the requirements of the Victorian AMI roll out. Due to similarity of requirements, these systems could be potentially further modified to support Power of Choice.

4.3. Option 2: Implement New Systems

The new systems options would involve the development of new systems that would need to be integrated with United Energy's customer, market and metering systems. It is envisaged that this project would be significantly larger and more costly than modifying existing systems. Cloud based providers could be considered in this evaluation.

5. Economic Evaluation

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	$2,793,000	$4,189,500
Opex ($)	$0	$0	$1,850,241
STPIS ($)	$0	$0	$0
Loss of F Factor Benefit	$0	$0	$0
Risk*** ($)	$0	$0	$0
Least Net Cost ($) (PV)		$2,793,000	$6,039,741

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 $2.8M and meets the regulatory requirements. Further evaluation will be in the final business case.

5.2. Benefits Summary

The Network Pricing project will deliver processes and system capabilities needed to comply with the new rule on Distribution Network Pricing Arrangements.

6. Proposed Solution

It is proposed to select Option 1, Modify Existing Systems, to provide the capability for cost reflective network tariffs 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 is not consistent with the proposed approach to cost reflective tariffs.

Option 2 was not selected as this is expected to be a higher cost and higher risk than Option 1. The proposed capabilities required can leverage the system 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 status of the rule changes for this are:

- AEMC final determination published on 27 November 2014
- Network prices commence under the Final Rule from 1 January 2017

To implement these changes the following are required:

- Define a new network tariff structure that complies with the new rule[3];
- Implement new tariffs that support capacity (demand) components[4]; and
- Implement new reports that will be used to monitor tariff performance[5].

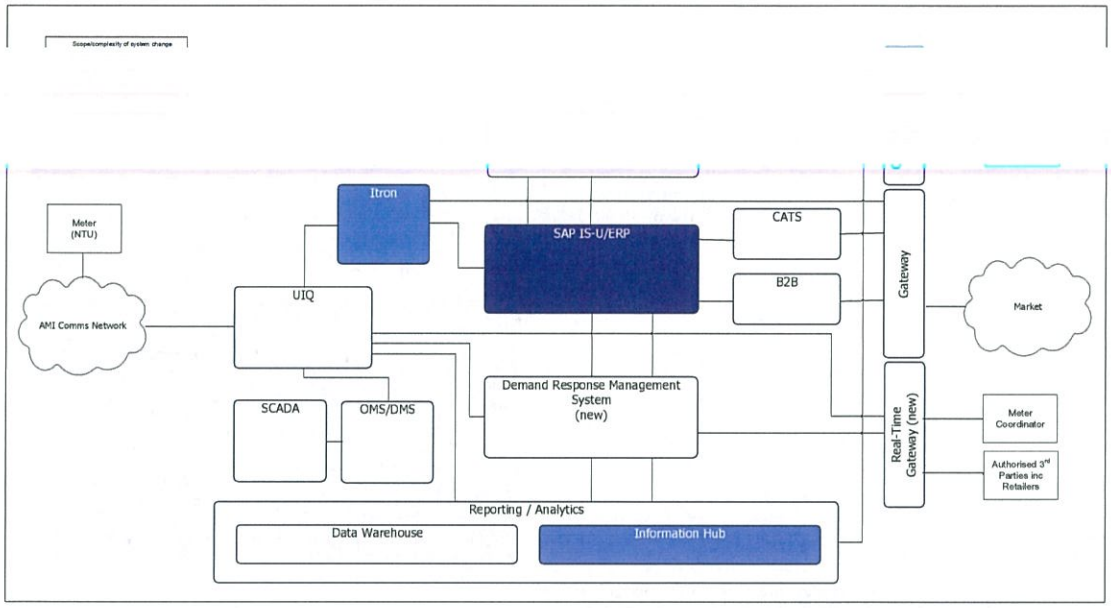
6.2. Solution Overview

The proposed solution leverages United Energy's existing customer, market and metering systems. The introduction of the new tariff structures will require changes to United Energy's customer system (SAP ISU) and meter data management system (ITRON – IEE). Changes will also be required to WebMethods application integration system.

[3] NER 6.18.5

[4] NER 6.18.5 (f)

[5] NER 6.18.5 (h) and (i)



6.3. Assumptions

The solution proposal assumes the following.

- Detailed requirements are not available at this stage. It has been assumed that, based on the Final Rule, the capabilities for the new network tariffs can be delivered with existing applications and no significant new software required.
- Existing systems will be leveraged to provide the required capabilities.

6.4. Systems Impacted

The following table identifies the systems impacted.

System	Processes	Impact
Billing System	Calculation of network charges	Implementation of new tariffs, including those that have capacity (demand) components.
Meter Data Management Systems	Meter data aggregation	Implementation of new aggregation methods and interface to support new tariffs.
Analytics	Price modelling and performance reporting	Develop new pricing models and price performance reporting, taking into account capacity (demand).
E2E	Integration and End-to-End Testing	Implementation of new tariffs, aggregation methods, and pricing models require significant testing.

No change	Low	Med	High	V. High

6.5. Project Plan

The Network Pricing project will be The AEMC's Final Rule Determination was published in November 2014 and the new tariffs will be delivered from 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

The project will deliver the following:

- Changes to systems and processes that enable United Energy to meet its regulatory obligations in delivering cost reflective network tariffs for Power of Choice reforms.
- Testing of system and process changes with AEMO and other market participants.

8. Project Capital Costs

Category	(A$)	Source / Explanation
Labour	$ 2.4M	Labour includes resources required for the full project implementation. It includes resources to carry out the complete system development and requisite Business and IT change management initiatives.
Hardware (application specific)	$ 0.1M	Assume that minimal additional hardware is required.
Software	$ 0.1M	Assume existing systems to be modified to meet new requirements – minimal software required
Security	$ 0.02M	Assume existing security arrangements are adequate – minimal change only.
PMO	$ 0.2M	Program Management Office and IT Capital Overheads
TOTAL	**$ 2.8M**	

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.

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 network tariffs prove not to be price reflective.	• Assumptions flawed	• Additional costs • Benefits to consumers not realised.

Appendices

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

Req't ID	Description
PJ21-01	**Define a new network tariff structure that complies with the four new pricing principles defined by AEMC.**
PJ21-02	**The new tariff structures need to support Demand components.**
PJ21-03	**Introduce new cost reflective tariffs structures:**
PJ21-03.01	• Revenue Management System updated with the new cost reflective tariffs structure.
PJ21-04	**Monitor tariff performance**
PJ21-04.01	• Assess if the revenue to be recovered from each network tariff reflects the network business' total efficient costs of providing services to the consumers assigned to that tariff.
PJ21-04.02	• Improve revenue and meter data quality
PJ21-04.03	• Include demand and capacity components in tariff and revenue models
PJ21-04.04	• Reporting to aid in assessing if the revenue to be recovered from each network tariff reflects the network business' total efficient costs of providing services to the consumers assigned to that tariff. Report(s) would show the revenue recovered from each network tariff, and the network business' total efficient cost of providing services to the consumers assigned to each network tariff.
PJ21-04.05	• Model revenue volatility

Appendix B – Process Impacts

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

ID	Description	Notes
PJ21-P01	Annual price setup and on-going review.	Existing processes will not change, however the input required to model prices, and to setup new tariffs will change or increase in order to meet the new pricing principles.

Appendix C - References

Distribution Network Pricing Arrangements Final Determination

http://www.aemc.gov.au/getattachment/de5cc69f-e850-48e0-9277-b3db79dd25c8/Final-determination.aspx

Distribution Network Pricing Arrangements Rule

http://www.aemc.gov.au/getattachment/528077f0-3be3-45e5-bf0b-02b76437ccb4/Final-rule.aspx

Distribution Network Pricing Arrangements Information Sheet

http://www.aemc.gov.au/getattachment/0ec31ed0-9f7c-40ea-ac23-889dce0259c3/Information-sheet.aspx

End of Document