

Project Justification - Power of Choice – Metering Competition


| | |
|---------------|--------------------------------------|
| Document Name | Power of Choice Metering Competition |
| Reference | PJ19 |
| Version | 2.0 |
| Issue Date | 17 December 2015 |
| Owner | Basile Sepsakos |
| Author | Tony Chenco |


Document Approval

Approval of the Project Justification for the Power of Choice – Metering Competition 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: 22/12/15 |

| Approver Name | Approver Title / Role | |
|----------------|---|-------------------|
| Alistair Legge | General Manager, Customer & Technology as Business Sponsor | |
| Signature: |  | Date: 23/12/15 |

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



Appendix C - References 28

- requiring a retailer to appoint the Metering Coordinator, except where another has appointed its own Metering Coordinator.

The final rule:

- Requires a Metering Coordinator to take on roles additional to those currently performed by the Responsible Person so that the security of, and access to, advanced meters and the services they provide are appropriately managed.
- Specifies the minimum services that a new or replacement meter installed at a small customer's premises must be capable of providing.
- Sets out the circumstances in which small customers may opt out of having a new meter installed at their premises.
- Clarifies the entitlement of parties to access energy data and access or receive metering data to reflect the changes to roles and responsibilities of parties providing metering services.
- Provides for LNSPs to continue to get the benefit of network devices installed at customers' premises that allow them to monitor, operate or control their networks for the purpose of providing network services, provided there is sufficient space to house both the metering installation and the network device.
- Permits a retailer to arrange for a Metering Coordinator to remotely disconnect or reconnect a small customer's premises in specified circumstances.
- Permits a retailer to arrange for a supply interruption at its customers' premises for the purposes of installing, maintaining, repairing or replacing an electricity meter.
- Allows a retailer to arrange the de-energisation of a premises if the customer fails to give safe and unhindered access to the premises for the retailer to carry out its responsibilities with regard to metering, subject to certain requirements.
- Makes changes to the model terms and conditions of standard retail contracts and deemed standard connection contracts to reflect the changes to the roles and responsibilities of parties providing metering services.

The scope of this project extends beyond the direct changes that United Energy needs to carry out to meet its obligations under the new Rules and SMP. Due to the integrated nature of United Energy's systems and processes, there are a number of flow-on impacts as a consequence of making changes to meet the rules. Those required indirect changes will also be implemented by this project.

The rules for metering competition and related services are now final. The rules clearly place a range of obligations on parties to update NEM and B2B procedures to facilitate metering competition and related services. The AEMC shared market protocol rule will facilitate the additional B2B transactions required for the minimum metering specification.

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 | United Energy has reviewed the business processes impacted by the changes to the National Electricity Rules. It has been determined that changes are required to many of the processes implemented in existing United Energy business systems. Due to the number of transactions and volumes of meter data involved it is not feasible to implement these processes without system changes. |
| Cost that a prudent operator would require to achieve the objectives | As a prudent operator, United Energy is preparing for the introduction of meter competition on the 1 December 2017 as prescribed in the National Electricity Rules. |
| Realistic expectation of demand and cost inputs required to achieve the objectives | As per the competition in metering and related services Rule change, from 1 December 2017 all new and replacement metering will be provided by contestable metering providers. Transaction volumes are based on expected numbers of new customers and rate of replacement of existing metering. Costs are based on a process by process review, identification of systems impacted and experience delivering comparable projects. |

3.2. UE Strategic Themes Alignment

The primary justification for the Power of Choice – Metering Competition project is to meet United Energy’s regulatory obligations for the introduction of metering competition, and shared market protocol.

4. Options

The following options have been considered to implement the Power of Choice – Metering Competition 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 metering competition and related services rules. Under this scenario, United Energy would not be able to comply with the National Electricity Rules and the amended procedures.

5.2. Benefits Summary

The Metering Competition project enables United Energy to meet its regulatory obligations by building system and process capabilities required by metering competition and shared market protocol.

- Manage changes to Network Billing – meter configuration, application of tariffs and missing data
- Manage Electrical safety impacts and communicate changed processes
- Network control room and Faults management- supply
- UE Interaction with Retailers (i.e. Not FRMP).
- Manage Key Coordination
- Manage additional customer queries and complaints due to not understanding new meter contestability regime.
- Manage changed New Connections and Initial energisation processes

- The MDP (not the MC) will continue to publish the data
- PMD and VMD requests will go directly to the MDP (not via the MC)
- Call volumes to the call centre (e.g. for explanations, clarifications) will increase when these rule changes come into effect
- In practice meter specs may vary greatly from this with some MCs providing minimum specs and others offering meters with more capabilities
- The IEC will develop the B2B communications between retailers and LNSPs relating to planned interruptions and energisation notifications etc
- The current definitions of Standard and Alternate services and the unbundling rules relating to it will continue as is
- LNSP may still collect (but not use commercially) the metrology data from a meter that has become a 'network device'
- Although competition is open once the rules come in effect, as a result of current exit fees, it is expected that competition will be focused initially on large customers, Greenfield sites for small customers, and meter failures at existing sites.
- For communications-card faults in current LNSP meters the meter needs to be replaced, making it contestable at that time

Cost estimates may change if assumptions are incorrect.

6.4. Systems Impacted

The following table identifies the systems impacted. The introduction of metering competition and shared market protocol will require significant amount of changes to United Energy's existing systems. It will also require rigorous market testing to ensure market operations are not disrupted.

| System | Processes | Impact |
|-----------------------------|---|---|
| Real-Time Gateway (new) | Handling of new transactions that require (near) real-time response | Handling of new transactions that require (near) real-time response |
| AMI Systems | Minimum metering services specification or SMP | Handling of services orders that are specified in the minimum metering services specification |
| Connection Point Management | Introduction of MC role | Support the introduction of MC role. This includes mapping of MCs against the meters, MC churn, and handling transactions to and from MCs. |
| Meter Data Management | Receipt of Meter Data from 3 rd Parties | As more meters churn from United Energy to another MC, the amount of meter data and meter configuration. Information from 3 rd parties will increase. This will require better exception handling and increase processing and storage capacity in SAP. |
| Billing | Billing of services requested by MC | Additional billing items will be configured to support charges to an MC. This includes appointments, field work, recovery of GSL cost if delays caused by MC. Assumption: Bills for MC charges will be through the Retailer. |

7. Outputs

The project will deliver the following:

- Systems and processes that enable United Energy to meet its regulatory obligations in relation to the metering competition and shared market protocol rules;
- MC establishment and registration and Type 4 Accreditation; and
- Market testing of system and process changes with AEMO and other market participants.

8. Project Capital Costs

| Cost Category | Amount (A\$) | Source / Explanation |
|---------------------------------|-----------------|---|
| Labour | \$ 16.1M | 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) | \$ 0.3M | Assume that limited additional hardware is required. |
| Software | \$ 0.3M | Assume existing systems to be modified to meet new requirements. |
| Security | \$ 0.1M | Security of new Shared Market Protocol to be reviewed. |
| PMO | \$ 1.1M | Program Management Office and IT Capital Overheads |
| TOTAL | \$ 17.9M | |

Estimates are based on assessment of impacts on systems to be modified to meet the metering competition and related services rules. Estimates are derived from a number documents, including the initial AEMC Power of Choice review - metering competition and related services rules and various AEMO advice documents as they are made available relating to the Shared Market Protocol and minimum services specification for metering.

9. Operating Cost Impact

This project does not introduce new systems, but is limited to enhancements to existing applications and environments. Whilst a small capital allowance has been made for Hardware and Software there is not expected to be an ongoing impact on IT operational costs.

It is expected that additional market transactions may result in some additional business cost.

Appendices

Appendix A - Requirements

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

| Req't ID | Description |
|----------------|--|
| PJ19-01 | Support the introduction of Metering Coordinator (MC) role – establishment as deemed/initial MC and ongoing MC role churn |
| PJ19-01.01 | <ul style="list-style-type: none"> United Energy will be the default/deemed MC for all of meters currently owned by United Energy (AMI, MRIM, Basic, Type 7) establish the deemed and appointed terms and conditions |
| PJ19-01.02 | <ul style="list-style-type: none"> United Energy to meet registration requirements as default/deemed MC for all of meters currently owned by United Energy (AMI, MRIM, Basic). |
| PJ19-01.03 | <ul style="list-style-type: none"> United Energy will interact with other MCs. The MC can either be appointed by a Retailer or by a large customer. |
| PJ19-01.04 | <ul style="list-style-type: none"> Capture and maintain the MC associated to the meter. |
| PJ19-01.05 | <ul style="list-style-type: none"> Receive and action notifications when MCs change. |
| PJ19-01.06 | <ul style="list-style-type: none"> Manage billing for services linked with the MC. |
| PJ19-01.07 | <ul style="list-style-type: none"> United Energy systems (B2B & SAP) and processes to validate and accept/reject based on initiating Market participant and United Energy's market participant status for that NMI. |
| PJ19-02 | Support automated MP and MDP role churns |
| PJ19-02.01 | <ul style="list-style-type: none"> Update MDP and MP roles when MDP and MP roles churn, increase level of automation for types 1-4 |
| PJ19-02.02 | <ul style="list-style-type: none"> United Energy to audit MPB work on United Energy network for compliance with SIRs and de-energisation/re-energisation (Authorising Contestable MPBs to de en/re-en on United Energy Network). |
| PJ19-02.04 | <ul style="list-style-type: none"> When requested, supply of LVCT asset information and test results to MPB/MC (when another participant takes over United Energy as the MC/MP). |
| PJ19-03 | Manage transitional process where United Energy is not MC but still MP/MDP |
| PJ19-04 | Manage mass migration of meter type from Type 5 AMI to Type 4 |
| PJ19-04.01 | <ul style="list-style-type: none"> United Energy to meet accreditation requirements as MDP for Type 4 meters. <ul style="list-style-type: none"> - Verification, Substitution and Estimation for AMI meters are as per Type 4 specifications. - Develop type 4 accreditation document. - Seek accreditation - audit. - United Energy to participant and facilitate in ongoing AEMO audits for a further type 4 metering category - MP and MDP. |
| PJ19-04.02 | <ul style="list-style-type: none"> United Energy to identify Vic AMI meters to remain as type 5 MRIM (ie the equivalent of type 4a) |
| PJ19-04.03 | <ul style="list-style-type: none"> Logical conversion of all Type 5 AMI meter to Type 4 within the United Energy systems. |
| PJ19-04.04 | <ul style="list-style-type: none"> Bulk update meter type data in MSATS of all Type 5 AMI meter to Type 4. |

| Req't ID | Description |
|----------------|---|
| | performance reports. |
| PJ19-07.16 | <ul style="list-style-type: none"> Ability for B2B SO to return to initiator and billing to associated FRMP. |
| PJ19-07.17 | <ul style="list-style-type: none"> MCs to be provided with priority or specific IVR selection for inbound calls to United Energy. |
| PJ19-07.18 | <ul style="list-style-type: none"> Process to ensure only one payment is provided for the same event (there could feasibly be 3 claimants for a damaged meter i.e. Retailer/MC/MP) related to meter damage caused by such things as HVI. |
| PJ19-08 | Notify retailers, and document notification, when meter exchange is required or when there is a meter fault. |
| PJ19-09 | Replacement of meters (from United Energy MC to another MC) (i.e. United Energy churning from default MC to LNSP only) |
| PJ19-09.01 | <ul style="list-style-type: none"> Participate in appointments where required (meter removal, isolation, etc.). |
| PJ19-09.02 | <ul style="list-style-type: none"> Apply work order charges. |
| PJ19-09.03 | <ul style="list-style-type: none"> Apply a cost recovery fee (exit fee). Different fee calculations will be used pre and post 31 December 2020. |
| PJ19-09.04 | <ul style="list-style-type: none"> Manage UE meter transition to network device or review the MC actions re removed AMI meters |
| PJ19-09.05 | <ul style="list-style-type: none"> Attend fault and meter requires replacement, notify retailer promptly to appoint MC. |
| PJ19-09.06 | <ul style="list-style-type: none"> Provide Retailers with Maintenance Replacement (aka 'family' replacement) requirements for replacement of United Energy's meters. And cooperate with the rollout (may be single requests or managed as a bulk project). |
| PJ19-09.07 | <ul style="list-style-type: none"> Apply Churn procedures to move the United Energy meter from MDMS/SAP (to halt data management in the capacity of MDP of site). |
| PJ19-09.08 | <ul style="list-style-type: none"> Solar reconfiguration that requires consolidation new meter, notify retailer of the requirement. |
| PJ19-09.09 | <ul style="list-style-type: none"> Asset management including disposal of removed United Energy Meter asset. |
| PJ19-09.10 | <ul style="list-style-type: none"> Follow up of removed but not returned United Energy meters from Other MCs/MPBs. |
| PJ19-09.11 | <ul style="list-style-type: none"> Change installation notice from MC (Meter Churn) to be recorded and included in Removed Meter and Missing Communications meter processes. |
| PJ19-09.12 | <ul style="list-style-type: none"> Ability to cater for advice of upcoming Meter Churn from Other MC/MP who are not formally Market Participants in MSATS for the NMI on a mass scale together with a Site details request. (New FRMP initiated campaigns) |
| PJ19-09.13 | <ul style="list-style-type: none"> United Energy obliged to advise retailer of meter churn requirement when a single or family of meters fail Family Testing. |
| PJ19-10 | Replacement of meters (i.e. United Energy in capacity of LNSP) |
| PJ19-10.01 | <ul style="list-style-type: none"> Be informed of appointments and where required participate (supply isolation, etc.). |
| PJ19-10.02 | <ul style="list-style-type: none"> Apply work order charges. |
| PJ19-10.03 | <ul style="list-style-type: none"> Enable the receipt and recording of notification for change MC (and other roles relevant to the meter). |
| PJ19-10.04 | <ul style="list-style-type: none"> Enable the receipt and recording of changes to meter configuration. |

| Req't ID | Description |
|----------------|---|
| PJ19-14.06 | <ul style="list-style-type: none"> United Energy /Retailer Contract to cover Bulk Meter Churn requests including Retailer Campaign & bulk Maintenance Replacements. |
| PJ19-14.07 | <ul style="list-style-type: none"> LNSP/Retailer contract to specify the requirement of up to date contact details of the 3rd party MC/MP/MDP. |
| PJ19-14.08 | <ul style="list-style-type: none"> Ability for LNSP to contact Retailer/MC t24/7 to refer or report Faults required. |
| PJ19-14.09 | <ul style="list-style-type: none"> Update contracts to accommodate for the effects to United Energy's subcontractors of no Meter replacement requirement from Dec 2017. |
| PJ19-14.10 | <ul style="list-style-type: none"> Update contracts to accommodate for the effects on United Energy's Metering contracts (Formaway, Skilltech) re volume & scope of work. |
| PJ19-14.11 | <ul style="list-style-type: none"> LNSP/Retailer contract will require SLAs for responding to billing inquiries due to other MDP bad data so Regulatory timings can be met including penalties for breaching. |
| PJ19-14.12 | <ul style="list-style-type: none"> Retailer/LNSP contract requires escalation process for when 3rd parties are involved. |
| PJ19-14.13 | <ul style="list-style-type: none"> Retailer/LNSP contract to include Appointment Calendar terms & conditions especially related to coincidental SO and possibly to include BAU vs Bulk. |
| PJ19-14.14 | <ul style="list-style-type: none"> All Retailer/LNSP contract details need to be translated into Guideline (per Retailer in some cases) for use by various United Energy agents. |
| PJ19-14.15 | <ul style="list-style-type: none"> Retailer/LNSP contract to include Customer Resolutions escalation & Vulnerable Customer processes and Claims & Complaints process and United Energy system to support reporting per Retailer/MC/MP/MDP. |
| PJ19-14.16 | <ul style="list-style-type: none"> LNSP/Retailer contract will require SLAs for responding to Complaint/Claims inquiries due to other MDP bad data so Regulatory timings can be met including penalties for breaching. |
| PJ19-15 | Manage changes to Network Billing – meter configuration, application of tariffs and missing data |
| PJ19-15.01 | <ul style="list-style-type: none"> Report on missing data by NMI load and net generation by MDP and action. |
| PJ19-15.02 | <ul style="list-style-type: none"> Receive and validate meter configuration/re-configuration prior to billing and apply network tariff components correctly. |
| PJ19-15.03 | <ul style="list-style-type: none"> Receive complaints for incorrect billing (as no/variable meter data configuration standards). |
| PJ19-15.04 | <ul style="list-style-type: none"> Update DataStream collected/stored when solar connection agreements completed. |
| PJ19-15.05 | <ul style="list-style-type: none"> Validate and follow up missing embedded generator meter configuration changes. |
| PJ19-15.06 | <ul style="list-style-type: none"> Balance of internal vs external MDP data will move towards external i.e. more external data files. Volume of data queries will move from receiving to initiating. |
| PJ19-15.07 | <ul style="list-style-type: none"> Billing Product Codes may increase to differentiate between LNSP only and LNSP as default MC charges/services undertaken (e.g. additional wasted truck visit codes.). |
| PJ19-16 | Manage Electrical safety impacts and communicate changed processes |
| PJ19-16.01 | <ul style="list-style-type: none"> Update SIRs documentation and consult. |
| PJ19-16.02 | <ul style="list-style-type: none"> Update operational safety management schemes and seek ESV approval. |
| PJ19-16.03 | <ul style="list-style-type: none"> Inform and update RECs, NECA etc. on new processes and expectation, training on third party fuse removal - establish and ongoing. |
| PJ19-16.04 | <ul style="list-style-type: none"> Remove United Energy meter wiring information from United Energy website, where United Energy is no longer the MP. |

Appendix B – Process Impacts

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

| ID | Description | Notes |
|----------|--|---|
| PJ19-P01 | MD01 – Receive Meter Data and Events | Meters that have churned to MC |
| PJ19-P02 | MD02 – Process Meter Data and Events | Meters that have churned to MC |
| PJ19-P03 | MD03 – Publish Meter Data | Meters that have churned to MC |
| PJ19-P04 | MD04 – Manage Missing Meter Data | Request missing data from MCs |
| PJ19-P05 | MD05 – Manage Outgoing Meter Data Queries | Tracking of status of PMD and VMDs |
| PJ19-P06 | MD08 – Manage Meter Data Compliance, Exceptions and Internal Queries | Accreditation requirement for Type 4. |
| PJ19-P07 | AM1 - Meter/CT/VT Test/Replacement Project Planning | Provide testing results to MCs |
| PJ19-P08 | AM3 – Meter/CT/VT Replacement Work Execution | Replacement of Meters - Meters that have churned to another MC |
| PJ19-P09 | AM4 – Meter/CT/VT/Access Point/Repeater Unplanned Maintenance | Replacement of network/communications devices. |
| PJ19-P10 | AM5 – Asset Performance Management | United Energy needs to proactively manage the quality of its communications network, taking into account the trend with which meters are being churned from United Energy to other MCs. |
| PJ19-P11 | AM7 – Material Demand Planning, Inventory and Procurement Management | Inclusion of network/communications devices Life cycle for meters may need to be revised - possible increase in volume for meters removed. |
| PJ19-P12 | AM8 – Receipt, Store and Deliver Materials | Inclusion of network/communications devices Life cycle for meters may need to be revised - possible increase in volume for meters removed. |
| PJ19-P13 | AM9 - Material Returns and Asset Disposal | Ensure that United Energy meters removed by MC are returned to United Energy. United Energy need to define process for disposal. |
| PJ19-P14 | AM10 – Maintain Financial Asset Register | Inclusion of network devices in the asset register. |
| PJ19-P15 | AM11 – Meter Reads, Service and Metering Work Order | United Energy will no longer perform metering services but will be participating in appointments for new connections and potentially for meter replacements if supply needs to be isolated. |

| ID | Description | Notes |
|----------|--|---|
| PJ19-P30 | NM6 - AMI Communications Network Incident | Communications incident could be triggered by an MC removing a United Energy meter. There needs to be a process where United Energy is informed prior to the meter removal in order to determine if to will impact the communications network. |
| PJ19-P31 | NM7 – AMI Device Registration | Process for determining when to install a network device to replace the meter removed by the MC. |
| PJ19-P32 | NM8 – AMI Device Model Management | Extend process to network devices. |
| PJ19-P33 | NM9 – ‘Real-time’ AMI Meter Interactions | United Energy needs to support near real-time remote services as per the Minimum Services Specification. |
| PJ19-P34 | NM10 – AMI Meter Data Collection | United Energy may need to collect meter event data from the meter owned by the MC for the purpose of operating the network. |
| PJ19-P35 | NM11 - Device Model Reporting | Extend process to network devices. |
| PJ19-P36 | NM12 - AMI Network Communications Performance Management | United Energy needs to proactively manage the quality of the communications network taking into account the rate with which United Energy meters are removed. Note: It is very likely that United Energy will not be allowed to keep its meter on site for network communications purposes. |
| PJ19-P36 | RM1.3 – Calculate Service Charges | United Energy will bill the MC for services requested such as truck appointments. Assumption: this will be billed through the Retailer who nominated the MC. |
| PJ19-P37 | RM1.8 – Generate Revenue Accrual and G/L Posting | Update to include charges for MC. |
| PJ19-P38 | RM1.12 – Manage Network Billing Disputes | Update dispute process to include MC related charges. |
| PJ19-P39 | Retailer Contracts | Review existing contracts in light of introduction of MC. Important note: MC charges will be billed through Retailer who nominated MC (this is United Energy preferred option). |
| PJ19-P40 | MC Contracts | Create new contracts with MCs |
| PJ19-P41 | MC Accreditation | United Energy as deemed MC for AMI meters. |
| PJ19-P42 | Type 4 MDP Accreditation | United Energy as MDP for Type 4 meters as a result of logical conversion from AMI to Type 4. |
| PJ19-P43 | Type 4a MDP Accreditation | Seek exemption given the low volume of United Energy meters in this category. |