# AMI Budget Application 2009 – 2011 to the Australian Energy Regulator

UNITED ENERGY
Distribution

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## Executive summary

United Energy Distribution (UED) remains dedicated to implementing the Victorian Government's Advanced Meter Infrastructure (AMI) policy. This policy requires UED to replace the existing accumulation meter at each customer site with a new AMI meter. It is the biggest project ever undertaken by UED and involves:

- replacing meters at approximately 658,000 customer sites;
- deploying a new communications network;
- installing new supporting IT systems; and
- redesigning its business processes.

UED has established a joint program with Jemena Electricity Networks (JEN) under the management of Alinta Asset Management (AAM). This program will deliver UED's AMI roll-out (or 'AIMRO') obligations to procure and deploy UED's AMI solutions.

The joint program is supported by cost sharing arrangements that deliver benefits to UED and their customers in the form of lower costs and risks. UED could not achieve these benefits under a stand-alone program. UED pays a commercial margin for access to these benefits.

This budget application sets out UED's proposed costs to deliver AMI. These costs will be or have already been market tested by the joint program through an extensive request for tender (RFT) process and the execution of actual contracts. Appendix A - Substantiation of Base Costs to Provide Regulated Services details the scope of the mandated AMI roll-out and outcomes of the contracting process.

This budget application presents UED's detailed expenditure forecasts. UED has based this budget application on release 1.1 of the Functionality Specification and Service Levels Specification.

A draft and final decision on pricing is an important aspect of the overall process. This budget application is designed to facilitate this process and contains sufficient information for the Australian Energy Regulator (AER) to make a decision so that revised prices can be introduced from 1 January 2010.

# 1 Introduction

This section is structured as follows:

- section 1.1 sets out the background to AIMRO program;
- section 1.2 details UED's AIMRO obligations, including a description of the revised regulatory arrangements and transfer of regulatory functions to the Australian Energy Regulator (AER); and
- section 1.3 describes the joint AIMRO program for delivery of AMI.

## 1.1 Background

The Victorian Government's policy to establish Advanced Metering Infrastructure (AMI) throughout Victoria by the end of 2013 continues to create significant challenges for UED.

In early 2006, the Victorian Government formally endorsed the deployment of AMI to all Victorian electricity consumers consuming less than 160MWh per annum. Subsequently, the Government's Cost Recovery Order in Council (OIC)[1] established a legal mandate for distributors to roll-out AMI meters. This cost recovery order was amended and is now referred to as the revised OIC for the purposes of this budget application. The amending order was gazetted on 25 November 2008. The Functionality and Service Levels Specifications Order in Council further defines a range of requirements for the deployment of AMI, including minimum AMI functionality, performance and service levels and phasing timelines for these meters.[2]

The AMI project requires UED to make a substantial investment in new, leading edge, as yet unproven, technology that will pervade virtually all aspects of its business. UED's deployment will involve approximately 658,000 customer sites.[3] AMI will see a major transitional change in the business over a short period through adoption of leading edge meters and communications infrastructure together with new information systems and business processes, roles and responsibilities.

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[1] Victorian Government Gazette (2007), Electricity Industry Act 2000 – Order under section 15A and section 46D, 28 August 2007.

[2] Department of Primary Industries (2007a) "Minimum AMI Functionality Specification – Release 1.0", October 2007, and Department of Primary Industries (2007b) "Minimum AMI Service Levels Specification – Release 1.0", October 2007.

[3] This is the number of customer sites - actual AMI meters required by 31 Dec 2013 will be greater than this number.

UED continues to be committed to delivering its AMI obligations by ensuring a robust, effective and commercial AMI solution is implemented to benefit customers and the industry, and to provide an opportunity to capture future benefits as they arise.

## 1.2 AIMRO obligations

UED notes that the AIMRO obligations were reviewed by the Victorian Government and industry in 2008. UED's obligations under the revised Cost Recovery OIC are:

- to use best endeavours to install AMI meters by the End Date for all customers with annual consumption of less than 160 MWh (for which UED is the responsible person);
- to install AMI meters that meet the minimum functionality and service levels specified under the Functionality and Service Levels OIC; and
- to use best endeavours to observe the following percentages of the total number of AMI meters to be installed[4]:

– by 30 June 2010 – 5 per cent;

– by 31 December 2010 – 10 per cent;

– by 30 June 2011 – 25 per cent

– by 31 December 2012 – 60 per cent;

– by 20 June 2013 – 95 per cent; and

– by 31 December 2013 –100 per cent.

AMI not only requires UED to deploy new, complex and advanced meters to replace all existing residential meters, it also requires UED to:

- implement a large-scale, high-performance, two-way communications network;
- establish new business processes for the roll-out and ongoing management of the new metering environment;
- put in place processes and information systems to capture data at half hourly intervals (48 reads per meter per day);
- integrate new information systems to validate, process and store metering data;
- establish new processes and systems to manage the new meter, network and systems environment and achieve associated service obligations; and

[4] Each number includes the previous percentage.

- employ business processes to ensure that the current manual meter-reading, back-office environment and current IT systems can be efficiently and effectively operated over the four-year period in which they are being replaced by AMI.

## 1.3 Joint AIMRO program for delivery of AMI

The scale, complexity and novelty of AMI presents challenges to cost effective delivery of the project. As a result, UED has looked at cost sharing arrangements as a means of:

- more effective project delivery through a larger better-equipped program team; and
- realising lower costs through synergy benefits.

AAM has created a comprehensive joint program for UED and JEN. This program will plan, develop and implement a solution to meet the businesses' AMI obligations.[5] AAM has designed this joint effort ('the joint AIMRO program' or 'the joint program') to reduce risk, ensure compliance with regulatory obligations and to maximise synergies as a result of delivering almost one million meters instead of developing stand-alone programs to deliver AMI separately.

UED benefits from the sharing of costs under the joint AIMRO program, benefits which are immediately passed on to its customers. The program is described in more detail in section 4 and in Appendix A. The cost sharing arrangements (between UED and JEN) that support the joint program are set out in appendix A. Appendix B provides a copy of the AIMRO Services Requirements Agreement (SRA) between UED and AAM

### *1.3.1 Certainty of cost estimates*

There is scope for significant budget overruns to be incurred by an efficient distributor when delivering this major technology project. The revised OIC addresses the issue of budget overruns in two ways:

- Firstly distributors are provided a 20 per cent allowance in addition to the approved budget; and
- Secondly distributors are allowed to submit a charges application or revised or varied budget application on an annual basis as forecast costs become more robust.

UED welcomes these provisions in the revised OIC. However it is important to reiterate that the program continues to have a high level of risk. Specific risk or contingency allowances have not been explicitly allowed for in UED's forecast costs. This is consistent with the intent of the revised OIC that provides for contingency events to be provided as

[5] The 'AMI obligations' are established through the Cost Recovery OIC and the Functionality and Service Levels OIC and related specifications.

they occur in the 20 per cent allowance.  Appendix A details the known risks at this stage, although no contingency amount has been allowed in the cost forecasts. The identification of risks is so that stakeholders are informed during the process.

# 2 AMI Regulatory framework

## 2.1 Introduction

The legal and regulatory framework for AMI in Victoria has been clarified by the revised OIC. This section provides a current overview of this framework.

## 2.2 Revised Cost Recovery Order in Council

The revised OIC prescribes the framework under which distributors will be able to recover the cost of providing metering services to customers. Broadly, it:

- specifies the initial and subsequent AMI budget periods. The initial AMI budget period is from 1 January 2009 to 31 December 2011. The subsequent AMI budget (final period) is from 1 January 2012 to 31 December 2015.
- obliges distributors to submit their initial AMI budget period budget application for metering services to the regulator on 27 February 2009; and
- requires the regulator to determine the maximum charges that a distributor is able to charge for the provision of metering services based on a cost pass through approach.

The revised OIC specifies the relevant categories of distributor costs for determining the Regulated Service charges for the initial AMI budget period. The revised OIC also identifies two distinct time periods for cost identification:

- costs incurred prior to the Start Date; and
- costs incurred during the initial and subsequent AMI budget periods.

The AER is to conduct the budget application under the revised OIC and not under the normal legislative instruments (e.g. the Chapter 6 of the National Electricity Rules).

## 2.3 Functionality and Service Levels Specifications OIC

The Functionality and Service Levels Specifications OIC[6] defines the minimum meter functionality and AMI system service levels to be provided by UED.

[6] Gazetted on 12 November 2007.

The Functionality and Service Levels OIC were gazetted in October 2007 and updated in September 2008. This budget application is based on the updated September 2008 Functionality and Service Levels.

For the purposes of this budget application, UED assumes that the final versions of the specifications required for AIMRO will be:

- Release 1.1 of the Functionality Specification; and
- Release 1.1 of Service Levels Specification.

Should these specifications change, UED will seek recovery of any associated cost impact through the pass through mechanism in the revised OIC or an opportunity to revise its budget.

## 2.4 Exclusivity derogation application

The Australian Energy Market Commission (AEMC) finalised the National Electricity Amendment (Victorian Jurisdictional Derogation (Advanced Metering Infrastructure Roll Out) on 29 January 2009. This budget application is based on this finalised amendment in the *National Electricity Amendment (Victoria Jurisdictional Derogation – Advanced Metering Infrastructure Rollout) Rule 2009 No.2* . This budget application has assumed that there will be no further changes to the derogation and it remains in place for the duration of the initial AMI budget period.

## 2.5 NEM Metrology Procedures

Parties who provide metering services in the National Electricity Market (NEM) must comply with the Metrology Procedures, made pursuant to the National Electricity Rules (NER). Distributors, as providers of AMI systems, will be under an obligation to comply with these rules and procedures and any subsequent amendments.

Consultation on proposed changes to the Metrology Procedures is currently being conducted. The proposed changes address the provision of AMI services in accordance with the mandated Functional and Service Level Specifications. This budget application assumes that the proposed changes will be implemented as drafted. UED believes that this is the most likely outcome and the joint program is operating under this assumption.

## 2.6 National Smart Metering Project

At the national level, a National Smart Metering project is currently reviewing the costs and benefits of a national roll-out of interval meters with two way communications. This project, under the auspices of the Ministerial Council on Energy (MCE), is coincident with the Victorian AMI roll-out.

In September 2007, the Victorian AMI project aligned the Victorian AMI requirements with the latest version of the national smart meter specification and performance levels. As and when the national smart metering arrangements are amended following further consultation and MCE policy decisions, additional amendments to the Victorian AMI requirements may be required.

On 5 March 2008, the MCE released for consultation the results of the cost benefit analysis[7]. The broad conclusion was that a roll-out was justified nationally, but that the benefits varied greatly among jurisdictions.

UED considers it is desirable for the Victorian AMI framework (including the revised OIC and the Functionality and Service Levels Specifications OIC) and the national smart meter framework to be aligned. There are substantial risks in any misalignment, both to Victorian and national market participants.[8] However, it needs to be recognised that the timing of any subsequent Rule development process under the MCE initiative has not been included in this budget application. For example this budget application has not allowed for any costs associated with any future re-alignment of the Victorian and National arrangements.

[7] MCE, *Release for Consultation of the Cost Benefit Analysis of Smart Metering and Direct Load Control*, Energy Market Reform Bulletin No 115, 5 March 2008.

[8] For example, from incompatibility and stranding of technology.

# 3 Budget application structure and context

## 3.1 Introduction

This budget application is the first budget submission made to the AER under the revised OIC. Clause 5.3 of the revised OIC states:

> An application must set out the information and identify the documents upon which the distributor relies. Provided that if a distributor relies on information it previously provided to the Commission for an application or a Pricing Proposal, it does not need to set out that information again in its application if the distributor identifies where that information may be found in that previous application or Pricing Proposal (as the case may be).

UED has previously made a number of submissions to the Essential Services Commission (ESC) providing cost forecasts and supporting data. UED has assumed that these submissions have been provided to the AER by the ESC when transferring their responsibilities. These submissions include:

- 24 September 2007: Response to ESC Consultation Paper No 1 (August 2007) – Framework and Approach.
- 31 December 2007: *Advanced Metering Infrastructure Pricing Proposal: Submission to the Essential Services Commission*. This pricing proposal sets out prices for the provision of Advanced Metering Infrastructure (AMI) in UED's distribution network area[9].
- 25 January 2008: *Data Templates*. The information in the December 2007 pricing proposal was supplemented with data templates containing cost and volume information in the format prescribed by the ESC. Both the December 2007 pricing proposal and January 2008 templates detailed the forecast capital and operating costs of delivering AMI in line with the timelines, functionality and service levels mandated by the Victorian Government.
- 12 March 2008: AIMRO Program: Further Information on Costs – Submission Prepared for Essential Services Commission. This submission supplemented the December 2007 pricing proposal and the 25 January 2008 templates.

[9] Clause 9.1(b) of the Cost Recovery OIC required Victorian Distributors to submit to the Commission their proposed prices for the provision of metering services, including AIMRO, for customers with annual electricity consumption of less than 160 MWh, by 31 December 2007.

- 16 May 2008: *Response to ESC data clarification questions*. This submission provided specific responses to cost and data template questions.
- 18 June 2008: Updated pricing proposal and Joint AMI solution and cost substantiation and supporting materials. These submissions provided updated cost forecasts and substantiation based on request for tender results.

The materials listed above are relied upon by UED for the purposes of clause 5.3 of the revised OIC in this budget application.

## 3.2 Structure of this budget application

This budget application is provided to comply with the revised OIC and with the AER's Framework and Approach paper. It includes:

- This application document;
- The AER templates – provided by the AER during this consultation process;
- Reconciliation of appendix A spreadsheets;
- Appendix A – Substantiation of base costs to provide regulated Services. This report has been prepared by AAM to provide detailed information of the joint program with JEN, including the tender process, tender outcomes to date, cost information and detailed activities required to meet the mandated AIMRO program. It also includes cost information relating to prescribed metering services;
- Appendix B - Service Requirements of AIMRO (SRA). This is the agreement between UED and AAM to provide the joint AIMRO program; and
- All the documents, including their attachments, listed in section 3.1 above

# 4 Joint program

## 4.1 Introduction

AAM has developed a joint program to manage the delivery of AMI on behalf of UED and JEN. The program covers:

- the selection, procurement and installation of:
  - meters;
  - communications systems; and
  - IT systems;
- participation in industry-wide activities related to AIMRO; and
- business process change design, planning and implementation.

Appendix A includes further details of the joint program.

## 4.2 Description of the joint program

AAM has created a comprehensive program for UED and JEN to plan, develop and implement a solution to meet their AMI obligations. The program is governed by a steering committee comprising executive managers representing JEN, UED and AAM. This committee makes recommendations to UED and JEN. Reporting to the steering committee is a program director responsible for overall management.

A cost-sharing agreement has been negotiated between the distributors to apportion the costs of the program. The cost sharing arrangements are summarised in section 4.4 below.

The program involves a number of stages ranging from conceptual design to delivery. Each stage concludes with a key deliverable and a work plan and budget for the next stage.

The planning and conceptual design stage was completed in July 2007 and concluded with agreement on a ‘blueprint’ for the program. This included agreement on:

- adopting meter and communications technology;
- trialling available technologies as part of the procurement process;
- the mass roll-out of meters;
- the staged deployment of IT systems to minimise risk;
- changes to business processes; and

- procurement.

The cost estimates provided in UED's previous pricing proposals were based on the agreements that were reached at this blueprint stage.

The program is currently executing contracts with various suppliers of goods and services. Cost forecasts included in this budget application are based, in large parts, on actual tender results and/or contract execution. The joint program has conducted an extensive contracting process for each major cost component. Details of this process is described in Appendix A, included as part of this budget application.

## 4.3 Benefits of the joint program and procurements process

The timeframes of the revised OIC require that approximately one million combined UED and JEN meters be installed by 31 December 2013. To complete a roll-out program of this size, UED and JEN adopted a mass roll-out approach for replacing meters and installing communications. The program developed resource plans, procedures and schedules to enable the business to deploy AMI field infrastructure during pilot and mass roll-out phases.

A significant component of costs will be incurred in a series of major contracts with external suppliers. An extensive and robust procurement process is therefore essential and has been implemented to obtain the most cost effective pricing for the program.

### *4.3.1 Procurement process*

The procurement process ensures that all acquisitions follow due process and minimise program costs and exposure to on time AMI delivery risk. Major features of this process are:

- transparent procedures to deliver optimal outcomes, including considerations of costs, compliance and delivery risk, from supplier selection of AMI technology, AMI workforce and business systems and delivery of related services;
- balanced use of multiple suppliers and period contracts for AMI technology, based on the results of the AMI selection and procurement trials to reduce contractual risk exposure;
- use of systems integrators and delivery partners who have AMI experience and are recognised centres of excellence for delivering the given product or service; and
- application of periodic payment schedules for all suppliers based on acceptance criteria to minimise vendor delivery risk.

## 4.4 Cost sharing arrangements

### *4.4.1 Network similarities*

In responding to the Government's July 2006 announcement that it intended to mandate an AMI roll-out, during the second half of 2006 UED considered the possibility of benefits that may be available arising from the transaction whereby Alinta Limited would take ownership of the business that is now JEN. It was evident that synergies would be available in the form of securing higher quality resources that may not be available to individual businesses and cost savings. These synergies were available from partnering with JEN arising from the Operating Services Agreement UED had in place with AAM and the proposal Alinta had to move the JEN network to UED's IT platform. Electricity distributors only successfully establish joint programs for the delivery of major technology projects when there are such pre-existing joint platforms.

### *4.4.2 Benefits of cost sharing*

A clear opportunity existed for UED and JEN to establish a joint AMI program that would enable both businesses to reduce the cost and risk associated with AIMRO. A joint program provided an effective way for JEN and UED to minimise costs and lessen risks because many of the program deliverables and solutions would be common. For example, program deliverables and solutions with cost sharing benefits include (but are not limited to):

- project plans/management processes;
- target IT architectures;
- target business processes;
- information systems products/vendors; procurement strategies; and
- deployment plans (but with some elements network dependent).

There remain some areas where each business may require separate deliverables or solutions. These have been clearly defined and scoped.

In some areas, such as the implementation of IT applications, the potential for joint savings is high. In other areas, such as in the procurement and deployment of the metering infrastructure, each distributor intends to purchase separate equipment.

In light of the identified synergy benefits, UED and JEN entered into cost sharing arrangements (via AAM) for the planning and conceptual design project phase and the selection, procurement and detailed design phase. These arrangements were submitted to the ESC on a confidential basis in a separate submission to UED's December 2007 proposal. The costs presented in this budget application assume that these cost sharing arrangements will be retained for the period of the initial budget period.

### 4.4.3 Development of the cost sharing arrangements

UED conducted lengthy negotiations with AAM, given the unique scale and complexity of AMI. Outcomes of the negotiations included:

- the terms and conditions upon which AAM will deliver AMI are documented in a purpose-designed contract—the AMI Services Requirements Agreement (SRA);
- AAM has structured its AMI program to enable optimal cost sharing with UED and JEN and the leverage of joint buying power; and
- the SRA contains the following benefits for UED:

– ownership of all intellectual property (IP) developed by the program;

– complete transparency of both capital and operating costs which actual costs then form the basis of the contract fee;

– control over expenditure through the approval of budgets and budget variations;

– active participation by UED in the development of plans, strategies and approach, including UED program team members and steering committee members;

– appointment of key personnel on the program that cannot be removed or redeployed by AAM without the agreement of UED;

– close proximity of the program to UED and AAM; and

– the ability to terminate the SRA for non-performance.

Under the current SRA, AAM has committed to operate its AMI program for the benefit of UED.

# 5 Submitted Budget

## 5.1 Application Amount

The Submitted Budget for the initial AMI budget period is:

| | |
|---|---|
| 2009 | $72,656,090 |
| 2010 | $72,138,176 |
| 2011 | $89,760,694 |

## 5.2 Application Detail

The following table contains expenditure for Regulated Services for each year of the initial AMI budget period, sets out the Total Opex and capex for that period and distinguishes between capital expenditure and maintenance and operating expenditure. Further details of cost information can be found in the templates, included as part of this submission.

| Description | 2009 | 2010 | 2011 | Total |
|---|---|---|---|---|
| Capital Expenditure | 65,402,814 | 51,372,673 | 69,780,470 | 186,555,957 |
| O&M Expenditure | 7,253,275 | 20,765,503 | 19,980,224 | 47,999,002 |
| | | | | |
| **Total Expenditure** | **72,656,090** | **72,138,176** | **89,760,694** | **234,554,959** |

Section 6 of this budget application discusses the tests for approval of this expenditure. Further supporting information is provided in the remainder of this budget application, including Appendix A, and the various appendices and the templates also provided. The table below has been prepared so forecast information presented above can easily be referenced to the forecast information contained Appendix A. These numbers are sourced from appendix A. This application also includes an excel spreadsheet that provides a reconciliation of forecast costs between Appendix A and the table above.

| Description | Appendix A reference |
|---|---|
| Capital expenditure | |
| - AMI technology | Chapter – 9 |
| - AMI IT | Chapter – 10 |
| - AMI acceptance testing | Chapter – 11 |
| - AMI installation services | Chapter – 12 |
| - AMI program management | Chapter – 13 |
| - AMI business and industry transition | Chapter - 14 |
| | |
| Maintenance and operating expenditure | |
| - AMI IT | Chapter – 15 |
| - Operational costs | Chapter – 15 |
| - Communications | Chapter – 15 |
| - Governance | Refer section 5.3 of this application |
| - Insurance | Refer section 5.3 of this application |
| - Equity | Refer section 5.4 of this application |

## 5.3 Governance and Insurance

In addition to the opex costs incurred through the joint program, and described in appendix A, UED is required to directly engage AMI related professional services. These include:

- legal fees incurred in negotiating and managing the AMI services agreement with AAM;
- legal fees (Mallesons Stephen and Jaques) to independently review legal contracts between AAM, UED and end suppliers specifically for the benefit of UED;
- management of UED's rights and obligations under the SRA;
- annual preparation and audit of the charges applications;
- preparation of budget applications; and
- independent advice on the technical solution and regulatory framework.

UED has also forecast incremental self insurance costs for the AMI roll-out. These total $XX per year during the roll-out.

These activities are reasonably required for the provision of Regulated Services and to comply with a metering regulatory obligation or requirement. They are listed as within scope (see Schedule 2, 2.1(b)(2)(xi) and (xiii))

The expenditure related to these activities will be incurred in the management of UED's corporate activity and doing so is within the commercial standard that a reasonable business would exercise in the circumstances. This expenditure relates to resources that have specialist capability or knowledge and a related familiarity with the UED business. Engaging such resources avoids the need for other service providers to 'come up to speed' with the businesses working arrangements and priorities. For example Mallesons Stephen Jacques are long standing solicitors to UED in relation to contracting and intellectual property matters and Ernst Young are UED's auditors and they will be engaged to do the audit of any charges applications.

## 5.4 Equity raising

Raising equity finance is an activity reasonably required for the provision of Regulated Services and to comply with a metering regulatory obligation or requirement. It is listed as within scope (see Schedule 2, 2.1(b)(2)(xii)) and under clause 4.1(h) of the revised OIC equity raising costs are, for the initial AMI WACC period (which includes the initial AMI budget period), recovered as a maintenance and operating expense.

There will be fees and costs to raise the equity component of its AMI roll-out financing These fees are forecast to be incurred in 2010 and total $XX million. At this stage no contracts have been competitively let or entered into.

## 5.5 Meter numbers

This section sets out UED's metering installation number forecasts for the 2009 to 2011 roll-out and demonstrates how these reconcile to current meter numbers. Meter numbers are a key driver of AIMRO program costs as well as the units upon which revenue is forecast (i.e. the unit against which metering charges will be levied).

UED has established its meter customer number forecasts based on:

- the current stock of meters by type; and
- forecast net customer growth.

UED's forecast metering customer numbers are provided below.

**Table 5-1: UED installation profile**

| Meter Type | 2009 | 2010 | 2011 | Total |
|---|---|---|---|---|
| AMI Meters | | | | |
| Single Phase | 6,620 | 58,705 | 152,423 | 217,748 |
| Single Phase Off-peak | 2,052 | 18,201 | 47,258 | 67,511 |
| Three Phase Direct Connected | 1,295 | 11,487 | 29,826 | 42,608 |
| Three Phase CT Connected | 48 | 422 | 1,095 | 1,565 |
| **Total AMI Meters** | **10,015** | **88,815** | **230,602** | **329,432** |
| **Accumulation Meters** | | | | |
| Single Phase | 6,629 | 0 | 0 | 0 |
| Single Phase Off-peak | 1,047 | 0 | 0 | 0 |
| Three Phase Direct Connected | 714 | 0 | 0 | 0 |
| Three Phase CT Connected | 40 | 0 | 0 | 0 |
| **Total Accumulation Meters** | **8,430** | **0** | **0** | **0** |
| **Total Meters** | **18,445** | **88,815** | **230,602** | **329,432** |

To deliver AMI meters in line with its working assumption, the joint program has developed a mass AMI roll-out plan which includes the following elements:

- meter replacements for existing manually read meters (i.e. accelerated replacements);
- meter replacements for faulty meters; and
- AMI meter installations for new connections.

UED has decided that it will seek an exemption from its meter family replacement obligations on the basis that all existing meter families will be replaced during the roll-out period. It must be noted that this exemption will not allow UED to cancel its annual meter testing program.

# 6 Approval of Submitted Budget under the revised OIC

The revised OIC includes requirements regarding the scope and content of a budget application (set out in Section 5B - Budget Application), and the process that the AER must adopt in reviewing it (set out in Section 5C – Budget Determination). This chapter addresses particular aspects of the Budget Determination provisions, and explains how these provisions should be applied to this budget application.

In particular, clause 5C.2 of the revised OIC requires that the Commission (the AER) must approve the Submitted Budget unless the Commission establishes that the expenditure (or part thereof):

(a) is for activities outside scope at the time of commitment to that expenditure and at the time of the determination; or

(b) is not prudent.

Clause 5C.3 states that expenditure is prudent and must be approved:

(a) where that expenditure is a contract cost, unless the Commission establishes that the contract was not let in accordance with a competitive tender process; or

(b) where that expenditure:

(i) is not a contract cost; or

(ii) is a contract cost and the Commission establishes that the contract was not let in accordance with a competitive tender process,

unless the Commission establishes that:

(iii) it is more likely than not that the expenditure will not be incurred; or

(iv) the expenditure will be incurred but incurring the expenditure involves a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances.

It is evident from the above provisions that the AER's review of a budget application is a two-step process:

- The first step is for the Commission to consider if it can establish that an activity is outside scope at the relevant times; and

- The second step is for the AER to consider if it can establish that expenditure (or part thereof) is not prudent. The considerations that are relevant to this determination are defined clearly in the various sub-paragraphs of clause 5C.3, as noted above.

The remainder of this chapter comments on this two step process as it applies to this budget application.

## 6.1 Are the budget activities within scope?

As noted above, the first step in the AER's examination of this budget application is to consider if it can establish that an activity is outside scope. Scope is defined in the revised OIC to mean the scope of activities:

(a) set out in Schedule 2 of the Order in Council; or

(b) published pursuant to clause 14B

as amended from time to time.

Currently only part (a) of the above definition sets out the activities that are within scope. In essence, activities within scope are those activities reasonably required for the provision of Regulated Services and to comply with a metering regulatory obligation or requirement. Schedule 2, Part 1 of the revised OIC lists inclusively the activities that are within scope for UED

It is not up to UED to demonstrate that an activity is reasonably required for the provision of Regulated Services and to comply with a metering regulatory obligation or requirement or that it is within the list set out in the Schedule. It is for the AER to establish that an activity is not so reasonably required[10]. An activity not on the list may still be reasonably required[11]. Nevertheless, UED makes the following comments.

The activities to be undertaken by the joint program under contract from UED for the provision of Regulated Services is described in detail in Appendix A of this budget application. As explained in that appendix, the joint program was developed to meet the regulatory requirements of the AMI roll-out. As AMI is rolled out progressively over a number of years, during the program delivery phase UED must continue to incur costs associated with business as usual metering. Appendix A described in detail how the joint

[10] As the AER acknowledges at page 27 F & A.

[11] Ibid.

program activities are within scope. UED will also incur direct costs associated with the governance and management of the joint program and to comply with its metering regulatory obligations. Schedule 2, Part 1 of the Order in Council clearly defines all of these activities as being within scope as discussed in Appendix A and sections 5.3 and 5.4 above. UED's Submitted Budget in section 5 of this budget application therefore also only relates to activities that fall within the scope of the revised OIC as that expenditure relates to joint program activities, including business as usual metering, and such direct costs.

UED has explained that significant effort is being committed to the effective governance and management of the joint program. To illustrate that these activities are within scope, it is useful to identify the relevant activities specified in Schedule 2, Part 1 of the revised OIC:

- participation in State and national industry activities relating to industry co-ordination, industry governance and developing related cross industry material;
- planning, program and project management, and administration;
- procurement, contract and supplier management;
- audits and quality assurance;
- obtaining expert advice and external surveys using independent consultants;
- contractors and system integrators including necessary facilities, administration, travel and accommodation;
- legal and regulatory, including budget, charges and fees application processes; and
- insurances and warranties;

The revised OIC also specifically includes the following activities as being within scope:

- program financing, including obtaining business approvals and funding, raising debt and/or equity finance, foreign exchange hedging, interest rate hedging, treasury and administration, business case development and financial, technical, legal and regulatory, due diligence reports; and
- executive and corporate office services

In light of the above provisions, it is evident that the joint program, UED's governance and management of the joint program and the business as usual metering activities all clearly fall within the scope of activities described by the revised OIC. UED reiterates that the joint program is driven by Government policy to deliver the interval meter roll out program. Accordingly, UED's commitments to expenditure are driven by those regulatory obligations.

## 6.2 Is the Budget expenditure prudent?

*A negotiated outcome*

Section 4 of this budget application describes the joint program and the cost sharing arrangements between UED and JEN. It explains that these arrangements provide substantial benefits to UED in terms of project risk management and cost minimisation, especially in relation to:

- project plans and project management processes;
- target IT architectures;
- target business processes;
- information systems products/vendors, and procurement strategies; and
- deployment plans.

Prior to establishing the joint program and cost sharing arrangements, the UED board recognised that AIMRO was a significant risk for the business. AIMRO is an innovative project involving the development, installation and operation of cutting-edge metering and communications technology on a very large scale in a very short time. Board members had personal experiences of large new technology IT projects and the strong likelihood of overruns - in terms of time and budgets - in relation to such projects. The Board considered the risks associated with AIMRO to be serious and significant, and it wanted to be assured that appropriate project management arrangements were in place.

Following the Victorian Government's decision to mandate AIMRO in July 2006, UED recognised that AIMRO was a new project based activity that it had never performed in house and so it did not have the immediate capability to deliver the project in house. UED examined its existing OSA with AAM and considered whether alternative arrangements would better meet the requirements of the business regarding AIMRO. UED recognised that clause 13 of the OSA would provide AAM with a XX per cent gross margin[12] in addition to the incremental costs of delivering the AIMRO project. Whilst AAM would provide management expertise in return for the XX per cent margin UED wanted to ensure that the payment of a margin reflected a reasonable commercial decision in the circumstances at that time.

[12] The XX per cent gross margin covers general management involvement/oversight, other overheads and profit

Having considered the availability of other options and its legal position, UED concluded that the OSA arrangement, including the payment of a XX per cent margin, would provide the best project outcomes on the condition that appropriate project management arrangements could be established with AAM. As explained in this budget application, suitable project management arrangements were established following extensive negotiations between UED and AAM, which provided UED with further confidence in relation to the effective and efficient management of project risks and costs. These negotiations led to the SRA which was initially signed on 1 October 2007 and then subsequently re-stated in December 2008.

Importantly from UED's perspective, the negotiation of the SRA resulted in UED maintaining a considerable degree of control over the program budget. In particular, UED has access to sufficient information in order to satisfy itself that the budget and all invoices are able to be substantiated fully. Using that access and control UED was able to drive a due diligence process ahead of signing contracts and obtaining equity. This outcome is a substantial improvement from the OSA provisions applying to non-AIMRO services, which have limited UED's ability to review the actual costs incurred by its service provider. In effect, therefore, UED was able to negotiate an important concession or improvement compared to the existing OSA provisions.

For these reasons, UED chose contractual arrangements as likely to lead to better outcomes than internal provision of services.

The governance arrangements for the joint program, its contractual obligations to make payments and UED's active role in reviewing cost estimates provides strong assurance that the expenditure outlined in this budget application is likely to be incurred. In terms of the revised OIC provisions, UED fully expects that the AER will not be able to establish the requirements of 5C.3(b)(iii).

Additional supporting information is provided in Appendix A of this budget application to explain the joint program's total costs including and the business as usual metering costs. The joint program's total costs in Appendix A exclude the XX per cent gross margin which is payable by UED in accordance with the UED's contracts.

UED's business as usual metering costs arise from the OSA as that contract applied to the provision of metering services in 2006, when the Victorian Government announced its decision to mandate AIMRO. In terms of the revised OIC, the contract relating to the provision of the business as usual metering costs was not let in accordance with a competitive tender process. UED has explained in previous relevant submissions and supporting papers the circumstances that led UED to enter into the OSA, however, these matters are not relevant to the circumstances UED faced in 2006.

Where a contract was not let in accordance with a competitive tender process, clause 5C.3(b)(iv) of the revised OIC states that the AER must approve the expenditure unless the AER establishes that:

> "the expenditure will be incurred but incurring the expenditure involves a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances."

For UED to incur business as usual metering costs pursuant to the OSA given the contractual circumstances of UED when it was required to comply with the AMI regulatory obligations in 2006 - could not lead the AER to conclude that the conditions described by clause 5C.3(b)(iv) have been met. Specifically, UED's budget expenditure relating to business as usual metering costs does not involve a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances. The relevant circumstances are those UED faced in 2006, including its then existing commercial arrangements, and a consideration of earlier business and contracting decisions is irrelevant under the terms of clause 5I.8 of the revised OIC applied by clause 5C.4. The circumstances relevant to the decision that UED took to incur business as usual metering expenditure, expenditure necessarily arising as a component of an AMI roll out program, include that it had at the pertinent time a contract for the provision of those services and the commercial standard of a reasonable business would be to comply with those contractual obligations.

Turning to the AMI roll-out in accordance with the SRA, UED notes that Appendix A to this budget application explains that the vast majority of the joint program costs will be subject to a competitive tender process. As discussed in this budget application, it is this tendering process - undertaken within the context of the joint program - that will deliver substantial benefits to UED in terms of economies of scale; reduced contract selection and management costs; and lower project risks. Having established a joint project to deliver benefits though joint tendering UED is not in a position to explain why *each* joint tender to be appropriate for it, not that the revised OIC requires it to do so. Nevertheless the benefits of joint purchasing power are readily apparent in UED's Submitted Budget and is discussed again below.

Notwithstanding the extensive tendering undertaken by the joint program, UED considers that its expenditure in relation to the joint program also arises from a contract (being the SRA) between itself and AAM that was not let in accordance with a competitive tender process.

The application of clause 5C.3(b)(iv) to UED expenditure in relation to AIMRO is therefore discussed below.

*A substantial departure from the commercial standard?*

This budget application has already explained that UED expects the joint program to deliver significant benefits compared to the best available alternatives. In particular, the joint program will deliver benefits from economies of scale by procuring services for two firms as opposed to one. Examples of the benefits that result from these arrangements include the following:

- AAM is likely to achieve a lower per unit price for some services, such as the purchase of meters; and
- by acting on behalf of both UED and JEN jointly, the duplication of a large range of services and costs is avoided, for example the joint program can procure IT services for both UED and JEN from one vendor under a single contract.

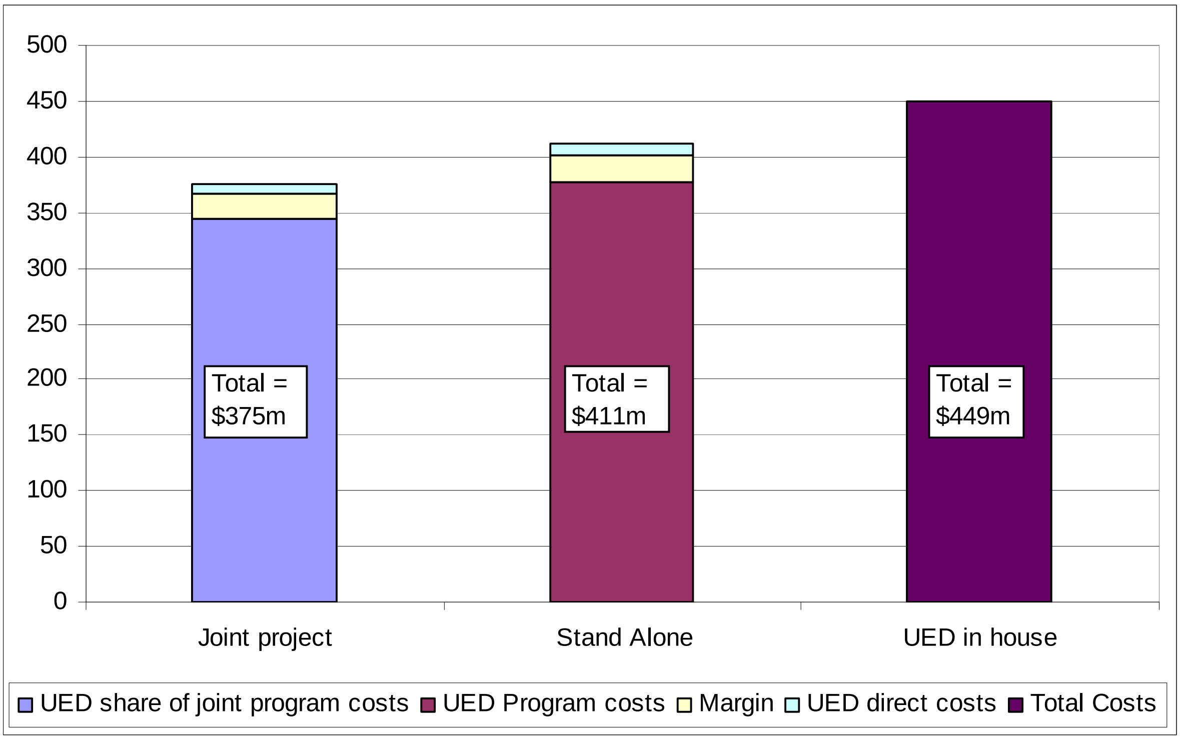
The opportunities for cost savings are best illustrated with reference to the costs of providing alternative approaches for delivering the AIMRO project. UED's December 2007 pricing proposal to the ESC' (section 7.2.3) examined alternatives to the AAM joint program on the following basis:

- UED undertakes the project on a stand alone basis with AAM; or
- UED undertakes the project 'in-house'.

It is UED's view that the two alternatives examined represent the next best available alternatives - in terms of overall cost-effectiveness - to the joint program described above.

UED's previous submission to the ESC explained the likely outcomes under the proposed approach and these two alternative scenarios, reflecting the cost estimates in December 2007. That analysis indicated that the likely cost outcomes from the joint program would deliver substantial savings compared to the next best alternative options available to UED. The figure below presents the latest cost comparison using the best available current information.

**Figure 6-1: Capex Cost of AMI, comparison between delivery by AAM and another contractor**




The first bar in the graph above represents the expected costs to UED under the proposed joint program, which includes payment of the XX per cent gross margin to AAM.

The second bar represents the costs that UED would be likely to incur under a stand alone approach, i.e. without the cost sharing arrangements with JEN. It is noted that the total cost that would be borne by UED under the stand alone approach is significantly higher than UED's expected cost under the joint program.

The third bar represents the cost that UED would be likely to incur if it undertook the work 'in-house' (on the assumption that such an approach would in practice be possible). This scenario recognises that the XX per cent gross margin payable to AAM might have been avoided (although AAM may have tested this position though legal action), but the benefits from the joint program would also have been lost. The overall result is that the total costs incurred through in-house delivery of the AIMRO project would be higher than the joint program.

As noted above, when the Government announced its intention to mandate the roll out of AIMRO in July 2006, UED was conscious of the risks associated with such a project, particularly given that the project involves a very large program of expenditure encompassing new technology and changes to IT systems. In addition to these risks, UED was conscious that AIMRO is a project that pervades the entire business including back office activities, billing, asset management and network operations. The interface and transitional issues arising from the AIMRO project placed AAM in a unique position to identify and manage these risks effectively.

To adopt a contrary position and deliver the project in-house or via an alternative service provider or providers would have exposed UED and customers to substantial and unacceptable risks. As evidenced by the analysis described above, the costs associated with attempting to address and manage these risks under the two alternatives examined are substantially higher than the costs expected under the joint program.

In the circumstances, that UED faced in 2006, including the contractual impositions of the OSA, the approach adopted by UED in relation to evaluating options for procurement of AIMRO services, and in negotiating the joint program arrangements are very much consistent with the commercial standard that a reasonable business would exercise. This budget application therefore contemplates that the AER will not be able to establish the requirements of clause 5C.3(b)(iv) of the revised OIC, and therefore UED's expenditure must be approved pursuant to clause 5C.3.

As noted earlier, UED considers that its expenditure in relation to AIMRO arises from a contract between UED and AAM that was not let in accordance with a competitive tender process. UED recognises, however, that the AER could adopt a different view of the contractual arrangements between UED and AAM in the context of the revised OIC provisions. In particular:

- the competitively tendered contracts managed by the joint program are also 'contract costs' within the meaning of clause 5C.11 and in accordance with clause 5C.3(a) of the revised OIC must be accepted by the AER without any further analysis; and

- on this basis only those additional costs incurred by UED that have not been subject to a competitive tendering process should be subject to the revised OIC provisions in clause 5C.3(b). These additional costs would include the XX per cent gross margin and business as usual metering costs, payable by UED to AAM in accordance with the OSA and SRA, UED direct costs and other non-tendered costs expected to be incurred by the joint program as described in Appendix A of this budget application.

The substantial majority of the joint project costs must be accepted by the AER without further analysis, whilst the remaining costs would be subject to the 'commercial standard' test required by clause 5C.3(iv).

As a practical matter, under either approach, the AER's conclusions regarding the approval of the budget application should be unaffected. In particular, one of the key benefits from the joint program is that it provides substantial savings through an extensive and robust tendering process, the costs of which to UED are far lower than it would have incurred under the next best alternatives.

On the other hand, an examination of the competitively tendered contract costs under the joint program followed by a separate consideration of the non-tendered costs should also conclude that the total expenditure is prudent and must be approved pursuant to clause 5C.3 of the revised OIC. Given the circumstances faced by UED in 2006, including its pre-existing contractual obligations, and recognising that the low costs achieved through competitive tendering under the joint program could not be achieved by UED without also incurring the XX per cent gross margin, determining to proceed with the payment of that gross margin meets the commercial standard of the reasonable business.

It should be noted that UED previously sought independent expert advice from by Ferrier Hodgson Forensics Pty Ltd (Ferrier Hodgson Forensics) to examine the reasonableness of the XX per cent gross margin[13]. Greg Meredith is a forensic accountant with Ferrier Hodgson Forensics.

Mr. Meredith found that the range of gross margin that would be reasonable and efficient for AAM to receive for provision of its services in respect of the roll-out of advanced interval metering in the context of the UED/AAM Agreement is XX per cent to XX per cent.

Mr. Meredith noted that whilst the OSA and SRA refer to a "XX per cent gross margin", having reviewed budgets for the SmartNet program and invoices AAM has issued to UED, the XX per cent is actually a "mark up" of costs not a "margin". A XX per cent "mark up" converts to a "margin" of XX per cent (1-(1/XX)). Hence, under the AIMRO SmartNet Program, UED is paying a gross margin of XX per cent to AAM on incremental costs excluding corporate overheads.

Mr. Meredith further explained that corporate overheads are mainly employees of AAM providing additional commercial and general management, regulatory support and specific electricity distribution asset management expertise. Any time spent by these AAM staff in relation to the provision of the AIMRO services are costs absorbed by AAM. This observation means that the net margin earned by AAM will be lower than XX per cent.

UED noted that Mr Meredith's comments provide further support that the SRA does not reflect a substantial departure from the commercial standard that a reasonable business would exercise.

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[13] See UED's Updated Pricing Proposal to the Essential Services Commission, 18th June 2008, pages 35-36.

## 6.3 Concluding comments

The revised OIC defines the AER's budget determination process and the approach that the Commission must adopt in either approving or rejecting the budget application.

In this chapter, UED has explained that the submitted budget in this budget application reflects activities that are within the scope defined by the revised OIC.

In terms of the revised OIC provisions, UED's expenditure in relation to business as usual metering arises from the legacy OSA that was signed in July 2003. In terms of the revised OIC, the budgeted expenditure therefore arises from a contract that was not let in accordance with a competitive tender process. UED considers that the relevant submissions and supporting papers previously lodged by UED, and the current contractual circumstances and obligations facing UED in 2006, could not lead to AER to conclude UED's budget expenditure relating to business as usual metering costs does not involve a substantial departure from the commercial standard that a reasonable business would exercise in the circumstances.

In relation to the AIMRO related costs under the joint program, UED's budgeted expenditure also arises from a contract (the SRA) that was not let in accordance with a competitive tender process. Nevertheless, the expenditure presented in this budget application will be prudently incurred, and it therefore satisfies the test for prudent expenditure set out in clause 5C.3(b)(iv) of the revised OIC. Specifically, the joint program has delivered substantial benefits compared to the next best alternatives available to UED following the Government's decision to mandate AIMRO. Furthermore, UED considers that the risks of adopting a different approach could not be justified, especially given the interface issues - and associated costs - that would arise.

UED would be pleased to provide the AER with any further information that it would find necessary in relation to the Budget Determination process set out in the revised OIC.