Smart Meter Stakeholder Working Group
Initial priorities paper
8 March 2007

In February 2006, the Council of Australian Governments (COAG) committed to the progressive national roll out of 'smart' electricity meters from 2007 to allow the introduction of time of day pricing and to allow users to better manage their demand for peak power only where benefits outweigh costs for residential users and in accordance with an implementation plan that has regard to costs and benefits and takes account of different market circumstances in each State and Territory.

The Smart Meter Stakeholder Working Group (SMSWG) has been called together by the Ministerial Council on Energy (MCE) as a representative group of consumer, retailer, network, and accredited service provider representatives with smart metering interests. The primary role of this group is to provide ongoing advice to MCE during the development of an implementation plan and cost benefit analysis for a national smart meter roll out.

SMSWG met for an initial three days of workshops in February. These workshops discussed stakeholder views on the benefits, costs/risks, and hence priorities, for any roll-out of smart meter infrastructure. The point of reference for these meetings was the Energy Market Reform Bulletin No. 79 issued by MCE SCO and the attached "Smart Meters - Information paper".

This initial communication from SMSWG attempts to synthesise the current top priorities and concerns of the different stakeholder groups, both collectively and specific to certain sectors, to advise COAG and MCE in the development an appropriate approach for smart meter infrastructure. The SMSWG brought diverse perspectives and interests to a wide-ranging consideration of technical, regulatory, commercial and consumer issues. The considerable detail of those discussions is, necessarily, omitted from this overview, but is expected to be reflected in SMSWG's future advice on implementation.

National regulatory framework

SMSWG's clear priority is a consistent national framework for the regulation and deployment of smart metering. This should include:

- Clear responsibilities and obligations for all relevant parties including consumers, networks, retailers, and metering service providers
- Effective consumer protection measures
- Clear cost recovery and risk management policies, including for meters, communications infrastructure, and business and market systems and processes
- Agreed minimum functionality and service levels for meters, communications and data infrastructure.

SMSWG recognises COAG's current commitment to roll out smart meters wherever benefits outweigh costs for residential consumers. However, some jurisdictions have already made a clear commitment to a smart meter future, including the Victorian

roll-out. Without an agreed national approach, diverging implementation paths for end-to-end functionality and technical specifications may lead to incompatibility and stranding of technology, barriers to effective retail competition through increased retail backend requirements, and more complex and costly electricity market management systems (both in the NEM and WA) for metering. It may also lead to lost opportunities to capture greenhouse benefits.

SMSWG agrees that some areas may be appropriately exempted, delayed or varied under a rollout, based on the critical national cost-benefit analysis of different segments, locations and alternative technologies. However, such regional or jurisdictional variation in rollout coverage or timing should be managed within a consistent national framework, and not result in jurisdiction-focused rules or cause delays in the development of the framework.

SMSWG notes the MCE's stated position that responsibility for roll-out should fall on a single party in each geographical area and this single party should be each distribution network service provider. This position is strongly supported by network service providers. They consider that this will ensure lower costs to customers through economies of scale, reduced complexity, and reduced possibility of meter churn.

SMSWG notes that MCE also supports cost-efficiencies through ensuring competitive tensions and that distributors and other parties should be given the opportunity to provide innovative and competitive demand side solutions and other services alongside the national roll-out being undertaken by the distributors. Retailers and some metering service providers expressed a strong preference that smart meter roll-out arrangements do not impede competition in the provision of meters and meter data services. They consider that this will also ensure cost-efficiencies through downward pressure on future costs and incentives for innovation in services.

SMSWG will endeavour to provide further advice as to workable mechanisms within the regulatory framework for metering to support MCE's position and capture both the benefits of scale efficiencies and the flexibility and innovation of competition.

Cost benefit analysis

SMSWG recognises that smart metering could deliver a significant range of benefits to the ongoing development of an efficient and competitive Australian electricity market. Primarily, smart meters offer opportunities to increase consumer awareness and responsiveness to energy costs, which could assist in peak shifting, demand management and in meeting greenhouse challenges for Australia. Benefits are also expected to be passed through to consumers through greater market choice and downward pressure on long term average prices.

There are also significant costs associated with smart meters, as well as risks in being an 'early adopter' of technology suitable to support Australia's sophisticated contestable retail market.

SMSWG agrees that the split of costs and benefits under current market arrangements and the need for critical-mass cost efficiencies will likely prevent individual businesses introducing smart meters in a way that would effectively maximise

benefits for all stakeholder groups. This constitutes a market failure in the current regulatory context.

Clear policy direction and regulatory support is needed to capture market-wide benefits. The current regulatory regimes that inhibit cost-reflective pricing at distribution and retail level, a lack of experience with smart metering technology in the Australian context, limited understanding of benefits for all stakeholders, and uncertainty about customer response are seen as potential impediments to smart metering. Network service providers identify an additional impediment, namely the lack of a clear cost-recovery regime for smart meters.

SMSWG strongly supports a full cost-benefit analysis to ensure that smart meters are only rolled out where they are of clear net benefit to consumers and in a way that maximises benefits to all stakeholders. This cost benefit analysis must:

- Be robust and transparent, considering jurisdictional differences while taking a consistent national approach
- Consider the range of strategies and options, including alternatives for delivering MCE's stated objectives (such as demand management).
- Test the benefits against MCE's stated objectives for smart metering and the market objective (in both the NEM and WA)
- Consider a full range of costs and risks, including business re-engineering and data management systems for all NEM/WEM participants
- Assess arrangements for different services (including any outstanding contestability, access, consumer protection, or regulation issues)
- Identify any gaps in customer protections (including collateral effects of transition such as risks to housing stock) and impacts on different customer classes

Consumer groups note that the objectives of smart metering should also include:

a) price benefits to all classes of residential consumers
b) the potential for reduction of greenhouse gas emissions

The cost-benefit analysis should test smart metering against both of these objectives.

SMSWG will leverage stakeholder expertise and learning from current trials to:

1. Advise on the scope and structure of the cost-benefit analysis necessary to identify appropriate roll-out priorities and exemptions, including demand management alternatives, and develop the details of the national framework.
2. Develop and design new trials to test data and assumptions used in the cost benefit analysis and inform the process of implementation.

Functionality and service levels

A core component of the national framework is development of base level functionality and service levels, which should include:

- Support for market, network and retailer functions.
- Open and interoperable standards for communication infrastructure and data management, to allow flexible service delivery by the range of appropriate providers.
- Support for flexible products and service innovation

- Focus on future proofing to allow for technological developments and protect against technological redundancy, through the use of emerging international standards and minimisation of installation/upgrade costs.

This national functional specification is required as soon as possible to minimise stranding of current infrastructure and new and replacement meters. SMSWG will initiate a technical group to advise on this functionality.

SMSWG also notes that the role of smart meters goes well beyond that of traditional meters, in terms of direct support for network and retail services. This will require review of current regulation and procedures, to determine where changes may be needed to support new capabilities provided by smart meters.

Price regulation and consumer protection

SMSWG agrees that passing on the benefits of smart meters to consumers depends on sufficient innovation and choice in new services and pricing arrangements.

Retailers believe that current retail price regulation is an impediment to smart-meter-enabled tariff innovation and may limit benefits able to be offered to customers. Retailers strongly support the removal of retail price regulation as the primary means of allowing tariff innovation following a smart meter rollout. However, SMSWG notes the MCE has agreed that retail price regulation remains a jurisdictional decision, to be informed by independent reviews of effective competition by the AEMC (and ERA in WA).

In areas where competition is not yet sufficient to support the removal of retail price regulation, price regulation may need to be re-structured to allow smart-meter-enabled price signals for consumers and allow retailers to offer innovative products.

It is also important to allow flexibility in network tariffs in the regulatory framework to allow the signalling of network constraints through pricing, where appropriate.

SMSWG recognises that while the long-term impact on customers as a group is expected to be reduced prices and increased choice, different classes of customers will face different impacts. Individual customers will face either an increase or decrease in their electricity charges based on their demand profiles and capacity to change behaviour. SMSWG recommends further exploration of the impacts on different classes of customers, including consideration of any "fair and reasonable" constraints required on tariffs. Appropriate price constraints and the capacity for cost-reflective pricing should be considered in the cost benefit analysis, together with any impact on timing.

While consumer groups recognise there are potential benefits from innovative services offered by smart metering technology, they note that governments must be committed to review and, where necessary, regulate the market application of major new technological capabilities and associated products. Some potential metering functionality (such as pre-payment capabilities) is contentious and must be assessed with regard to the long term interest of consumers prior to market application.

Implementation planning

While SMSWG recognises the potential benefits of smart meters, COAG must recognise that the transition to a smart meter future will be complex and difficult. Australia's disaggregated market structure is in many ways further advanced than international counterparts, with less vertical integration leading to more complex interoperability and data management requirements. Smart metering will involve not only new hardware but new, open communications infrastructure, costly redevelopment of business processes and systems, critical regulatory changes, and significant innovation, learning and change management for all stakeholders.

To manage these transitional and timing challenges, MCE's implementation plan should consider:

- Timing which realistically reflects the maturity of market to deliver products/solutions, including: appropriate communications technologies, meter market, data management, metrology procedures, and interoperability
- A roll-out sufficiently staged with appropriate trials to allow effective exploration of technology and cost risks, consumer impacts, business process re-engineering, proof of concept at scale, and actual greenhouse implications.
- Maximising the potential for competitive service provision where that can be shown to be efficient.
- An effective evaluation strategy to monitor the benefits and effectiveness of the roll out.
- Priorities in staging of the roll-out should reflect benefit-maximisation determined during cost-benefit analysis
- Regulators should be required to recognise and support initial cost uncertainty during trials and early phases of roll-out. Cost efficiencies will take time to capture and transitional costs will include wide-spread change of business processes. Given five-year regulatory resets, the cost uncertainty of a step change in technology creates significant risks for regulated businesses.
- Sufficient consideration of consumer education and communication programs

Considerable progress in smart meter and alternative demand management trials in most jurisdictions has occurred since the COAG commitment. Stakeholders agree that in-market tests and trials are critical to maximising benefits of thesenew technologies and reducing transitional risks. Current trials being conducted by distributors, independent service providers and retailers will significantly inform the COAG process going forward.

The Smart Meters Stakeholder Working Group

This communication from SMSWG is a result of the initial three day workshop and attempts to synthesise the current top priorities and concerns of the diverse perspectives and interests. Individual members of the SMSWG therefore, do not endorse all of the views expressed in this communication.

Participants in the workshop, contributing to and reviewing this document, include:

- AGL

- TRUenergy
- Origin Energy
- Horizon Power
- Aurora Energy
- Energy Networks Association
- Citipower
- Energy Australia
- ETSA Utilities
- Queensland distribution businesses (Ergon and Energex)
- Western Power
- Integral Energy
- Metropolis Metering Assets
- Centurion Metering Technologies
- Total Environment Centre
- Australia Council of Social Service
- Consumer Utilities Advocacy Centre
- Public Interest Advocacy Centre
- National Electricity Market Management Company
- Australian Energy Regulator

The SMSWG workshop was facilitated by the Commonwealth as Chair of the MCE Smart Meter Working Group. Jurisdictional representatives also attended on the first day as observers, including: New South Wales, Victoria, Queensland, South Australia, Western Australia, Northern Territory and Australian Capital Territory.