

Senate Select Committee on Fuel and Energy - 7 April 2010

Questions on Notice

QoN 1 – Smart Meters

The most recent summary of future pilots and trials from the National Stakeholder Steering Committee (NSSC) is at **Attachment A**. A status report on pilots and trials as at 12 June 2009 is at **Attachment B**. These documents are available at <http://share.aemo.com.au/smartmetering/Pages/PTWG.aspx> . An update is currently being prepared by the NSSC for anticipated completion in June 2010.

QoN 2 – In a liquid fuel emergency the *Liquid Fuel Emergency Act 1984* gives the Minister power to control the drawdown, transfer and sale of industry stocks of crude oil and liquid fuels, and to control bulk and retail sales of fuel across Australia.

QoN 3 and 4– Understanding across the energy security spectrum of all of the regulatory powers and relevant legislation:

Regarding Liquid Fuels:

Primary Legislation

Energy and Utilities Administration Act 1987 (NSW)
Essential Goods and Services Act 1981 (NT)
Essential Services Act 1988 (NSW)
Essential Services Act 1958 (Vic)
Fuel Emergency Act 1977 (Vic)
Fuel, Energy and Power Resources Act 1972 (WA)
Fuels Control Act 1979 (ACT)
Liquid Fuel Emergency Act 1984 (Australian Government)
Liquid Fuel Supply Act 1984 (Queensland)
Petroleum and Geothermal Energy Resources Act 1967 (WA)
Petroleum Products Emergency Act 1994 (Tasmania)
Petroleum Products Regulation Act 1995 (SA)
Petroleum (Submerged Lands) Act 1976 (Australian Government)
State Emergency and Rescue Management Act 1989 (NSW)

Subordinate Legislation

Liquid Fuel Emergency Guidelines 2008
Liquid Fuel Emergency (Activities – Essential Users) Determination 2008

National Oil Supplies Emergency Committee (NOSEC)

NOSEC is the main executive channel through which Australian Governments, in cooperation with industry, formulate the overall management response to a national liquid fuel emergency. NOSEC reports to the Ministerial Council on Energy (MCE) and comprises officials from the Australian Government, the State and Territory Governments and the oil industry.

The task of the NOSEC is to ensure that Minister Ferguson and the MCE receive relevant advice and information on issues confronting national supply of crude oil and petroleum products. NOSEC also fulfils the role of National Emergency Sharing Organisation, which is an ongoing requirement of Australia's membership of the International Energy Agency.

NOSEC comprises representatives from the Commonwealth (chair), the states/territories and the oil industry. Representatives from industry include:

- Shell
- ExxonMobil
- Caltex
- BP
- Woolworths
- the Australian Institute of Petroleum.

Regarding Gas and Electricity:

The Energy Security Working Group, a subgroup of the Ministerial Council on Energy's Standing Committee of Officials, will soon publish its report, *Recommendations on the role of AEMO and the effectiveness of current gas and electricity arrangements* on the MCE website (<http://www.ret.gov.au/Documents/mce/security/eswg.html>). Please refer to Appendices 3, 4 and 5 for the summary of the gas and electricity emergency arrangements for each of the jurisdictions in the National Energy Market and Western Australia. These tables are based on an emergency management perspective; nevertheless, they still compile all relevant legislation and instruments for managing the gas and electricity sectors (including the emergency arrangements for Australian Energy Market Operator (AEMO which was formerly NEMMCO) and the National Gas Emergency Response Advisory Committee (NGERAC).

The National Electricity Law and the National Gas Law

The National Electricity Law (NEL) was implemented in April 2005 and is contained in a Schedule to the *National Electricity (South Australia) Act 1996*. The NEL is applied as law in each participating jurisdiction of the National Electricity Market (NEM) by application statutes. Following amendment, consumer advocacy governance provisions came into effect on 1 July 2008. On 1 January 2008, significant amendments to the NEL and National Electricity Rules brought the regulation of electricity distribution networks under the national energy market governance arrangements.

On 1 July 2008, the National Gas Law (NGL) and Rules came into force in all states and territories except Western Australia, which introduced the legislative changes on 1 January 2010. The NGL is contained in a Schedule to the *National Gas (South Australia) Act 2008*. An application statute for each participating jurisdiction governs the extent to which the national gas legislation applies in the relevant jurisdiction.

The National Electricity Rules and the National Gas Rules have the force of law and are made by the Australian Energy Market Commission (AEMC) under the NEL and the NGL. These reform initiatives ensure electricity and gas markets are regulated under a national framework administered in most jurisdictions by the national regulator, the Australian Energy Regulator (AER).

QoN 5 – Streamlining and Simplifying the Regulatory Framework

Introduction

The Ministerial Council on Energy (MCE) is the national policy and governance body for Australia's electricity and gas markets. It was established by the Council of Australian Governments (COAG) to provide national oversight and coordination of energy policy development and to provide national leadership so that consideration of broader convergence issues and environmental impacts are effectively integrated into energy sector decision-making.

The MCE is pursuing an active agenda of reform which includes a focus on creating a more nationally consistent legal and institutional framework for energy markets. As part of a key microeconomic reform, Energy Ministers have delivered some significant outcomes in the development of a national legislative and regulatory framework. Reforms relating to the National Energy Customer Framework (NECF) and the establishment of the Australian Energy Market Operator (AEMO) are of particular recent significance.

National Energy Customer Framework

Through the MCE, the Commonwealth is working with its state and territory counterparts to finalise the National Energy Customer Framework (NECF). While not yet agreed by ministers, the NECF is expected to be implemented through a new National Energy Retail Law (NERL), National Energy Retail Rules and National Energy Retail Regulations. The implementation of the NECF is a major component of the MCE's energy market reform agenda, as agreed to under the Australian Energy Market Agreement. The NECF will regulate the sale and supply of energy (both electricity and gas) to retail customers. The First Exposure Draft of the NECF was released for consultation on 30 April 2009.

Officials released the Second Exposure Draft of the framework for consultation on 27 November 2009. Significantly, the framework includes new draft Law and Rule provisions for a national Retailer of Last Resort (ROLR) scheme for electricity and gas and national electricity and gas connection frameworks. A public forum on the package was held on 3-4 February 2010 in Melbourne.

As agreed by the MCE at its 10 July 2009 meeting, the NECF legislative package is due to be introduced into the South Australian Parliament during the 2010 Spring Session. The shift from six jurisdictional retail supply regimes for both electricity and gas to a single national regime is a significant achievement but also a major regulatory transition. Ministers agreed on 4 December 2009 to introduce the NECF progressively between July 2011 and July 2013, noting that some transitional arrangements will still be required after introduction.

Business Regulation and Competition Workings Group (BRCWG) implementation plan

COAG's Business Regulation and Competition Working Group (BRCWG) is developing an implementation plan to monitor the progress of Ministerial Councils against a wide range of national reforms which relate to the broader competition and deregulation agenda. The MCE has been asked to provide input to this process and is expected to do so after the June MCE meeting.

Australian Energy Market Commission (AEMC) competition reviews

The Australian Energy Market Commission (AEMC) is required under the Australian Energy Market Agreement (AEMA) to assess the effectiveness of competition in retail energy markets for the purpose of retention, removal or reintroduction of retail energy price controls. To achieve this, the MCE has set a schedule of competition reviews in relevant jurisdictions to be conducted by the AEMC.

To date reviews have been conducted in Victoria in 2007 (with Victoria ceasing the regulation of prices in January 2009) and South Australia in 2008. The AEMC is scheduled to conduct further reviews in the Australian Capital Territory in 2010, New South Wales in 2011, Queensland in 2012 and Tasmania in 2013 (if full retail contestability is implemented by then).

Removal of Derogations

The removal of jurisdictional derogations from national legislation will be reviewed following the finalisation of the national legislation, which will occur after the introduction of the National Energy Retail Law and Rules. This is consistent with the recommendations from the COAG Reform Council in 2009 that "the MCE develop a revised timetable for the review and removal or harmonisation, as appropriate, of derogations from the national framework, and other state-specific differences, to proceed expeditiously after the legislation for the national framework is in place".

Institutional Reform

Under the direction of the MCE, the Australian energy market governance framework has been transformed in recent years. The MCE established AEMO in 2009 and the AER and the AEMC in 2005. Collectively these institutions function to ensure the efficient regulation, development and operation of the market. The key challenge for the MCE is to ensure that these institutions can continue to manage the affairs of the market effectively within a dynamic operating environment.

Australian Energy Market Operator

At its 13 April 2007 meeting, COAG agreed to establish a single, industry-funded electricity and gas market operator, which commenced operations on 1 July 2009 as the Australian Energy Market Operator (AEMO). AEMO has assumed the functions of the National Electricity Market Management Company (NEMMCO); the Victorian Energy Networks Corporation (VENCorp); the Gas Market Company (GMC) in New South Wales; the Retail Energy Market Company (REMCo) in South Australia; the Electricity Supply Industry Planning Council (ESIPC) in South Australia; and the Gas Retail Market Operator (GRMO) in Queensland.

AEMO was established as an independent, member-based organisation, operating on a cost recovery basis as a corporate entity limited by guarantee under the Corporations Act 2001. Membership is split 60/40 between government and industry, with membership to be reviewed in 2012. Government members of AEMO include the Australian Government and state governments of Queensland, New South Wales, Victoria, South Australia and Tasmania and the Australian Capital Territory. Private members include Australia's major energy generators, wholesalers and retailers.

One of the new functions of AEMO is the National Transmission Planner (NTP), which involves the preparation and publication of an annual National Transmission Network Development Plan (NTNDP). The new NTNDP will provide information on best practice investment for networks and provide a long-term assessment of power system development to the market. AEMO also governs the function of the gas market Bulletin Board, the gas Statement of Opportunities and will undertake the gas Short Term Trading Market function from the expected start-up date of 4 June 2010.

AEMO does not operate in Western Australia (WA) or the Northern Territory (NT). However, it has been established in a manner that facilitates WA and NT joining if these jurisdictions decide to do so at a later date.

Australian Energy Regulator

In July 2005 COAG, through the MCE, established the AER to undertake independent national regulatory functions for the national electricity and gas markets. The AER is an independent statutory authority and administratively part of the Australian Competition and Consumer Commission (ACCC) under Part IIIA of the *Trade Practices Act 1974*. The AER oversees economic regulation and compliance with the NEL, NGL National Electricity Rules and National Gas Rules.

The AER regulates the wholesale electricity market and is responsible for the economic regulation of the electricity transmission and distribution networks in the NEM. The AER is also responsible for the economic regulation of gas transmission and distribution pipelines and enforcing the NGL and National Gas Rules in all jurisdictions except Western Australia.

The AER is expected to take on a range of new non-economic regulation functions as part of the proposed NECF, which will set a national framework for the sale and supply of energy to retail customers.

Australian Energy Market Commission

In July 2005 COAG through the MCE, established the AEMC to undertake rule making and market development functions for the national electricity and gas markets. The AEMC is responsible for rule making, market development and the provision of policy advice to the MCE concerning both the NEM and elements of natural gas markets.

The principal functions of the AEMC set out in the *Australian Energy Market Commission Establishment Act 2004 (SA)*, the NEL and the NGL are:

- rule-making in response to rule proposals submitted by stakeholders;
- promoting market development through the conduct of reviews in response to requests from the MCE;
- promoting market development through self initiated reviews;
- provision of advice to the MCE (at the request of the MCE); and
- stewardship of the organisation.

The AEMC also has responsibilities in relation to two Panels. The Reliability Panel is chaired by a Commissioner and its work program is carried out by AEMC staff. The Consumer Advocacy Panel is independent of the AEMC in allocating grant funding but utilises the services of the AEMC to administer its affairs. The AEMC also has a role in advising the MCE in relation to the Consumer Advocacy Panel's budget, operational guidelines and the selection of Panel members.

Attachment A: NSSC Summary of Future Pilots & Trials

Executive Summary

Smart Metering –Future Pilots and Trials Report to the Ministerial Council on Energy
Executive Summary

The purpose of this report is to provide the Standing Committee of Officials and Ministerial Council on Energy with status report on the future pilots and trials planned by companies in each jurisdiction.

Status reports have been provided by Country Energy, EnergyAustralia, Energex/Ergon Energy, Western Power, ETSA Utilities and Actew/AGL.

The table below presents an Executive Overview of the scope of each planned smart metering pilot or trial by companies in each jurisdiction. The table also describes the type of testing to be conducted in each pilot or trial in terms of technology acceptance, business impact or consumer impacts.

It can be seen there is a mixture of trials currently planned. Both Western Power and EnergyAustralia will run an extensive technology trial on most of the smart meter functions in the SMI Functionality Specification while the primary objective of the Ergon Energy/Energex pilot is to deliver costs and benefits forecasts with a higher degree of confidence than in the original NERA cost benefit study. Country Energy and ActewAGL will run trials that test both the technology and provide better costs and benefits data to support revised cost benefits analysis. ETSA Distribution has been conducting extensive direct load control trials for air conditioning testing technology and consumer responses.

Appendix A provides the status reports provided by each company.

Disclaimer

It should be noted that this report is a survey only which has been prepared to promote information sharing across distributors, retailers, and consumers. The NSSC and its stakeholder member organisations, the Energy Networks Association, Energy Retailers Association of Australia, and Consumer Roundtable in no way endorse or are accountable for the scope, cost, approach, deliverables or outcomes of these proposed pilots and trials. The accountability to prepare and conduct a pilot or trial rests with the company conducting a pilot or trial who may be carrying out the exercise in response to a mandate from a Jurisdictional Minister

Executive Overview – Smart Metering Future Pilots and Trials

Company	Summary	Technology acceptance	Business impact	Consumer impact
New South Wales				
CountryEnergy	Start Date: Q1 2009 End Date: Dec 2011 Installation of smart meters within 2 representative communities of approx 6000 meters each Mainly residential customers Aims to test all components of the current MCE functional specification and gather cost and benefit information	Assess application and performance of selected technologies on CountryEnergy's network in accordance with min functional specification and service level requirements and the interaction with broader Intelligent Network program	Distribution impact Better understand implementation challenges and risks of deployment Retailer impact None	Collection, recording and analysis of associated costs and benefits of AMI deployment
EnergyAustralia	Start Date: March 2009 End Date: March 2011 Newington Smart Village Trial Covering 1000 homes by end of 2010 Aim is to provide customers with the ability to further reduce their environmental footprint and their energy bills and pilot smart meter applications and provide	Majority of functions in the current MCE functional specification will be tested in lab trails and/or in the field pilot Assessing end-to-end replacement of existing hot water load control technology costs and benefits Testing end-to-end security against AMISec Requirements and NIST Smart Grid Security process Utilise fourth generation wireless technology	Distribution impact None – this is primarily a technology trial Retailer impact None	Network Demand Reduction Tariffs Multi-utility product offering Tools for demand reduction and measuring effectiveness of tools Methods of customer engagement – IHD and browser based portal

Company	Summary	Technology acceptance	Business impact	Consumer impact
	information on benefits of those applications	Testing of different HAN technologies Trial remote support IT framework for smart metering		
Queensland				
Energex/Ergon Energy	Start Date: October 2009 End Date: Q2 2012 The project aims to deliver a revised cost benefit analysis based on all the learnings gathered through the pilots and trials as well as through the Knowledge Management activities. Deport Area Pilot High Density Dwelling Pilot Rewards Based Tariff Pilot SMI Communications Trials and Evaluation Meter Data Management System (MDMS) Trials and Evaluation Meter Asset Life Trial	Test last-mile telecommunications required for thee range of topologies and topographies in Queensland Test performance of SMI against the national meter functionality and potential replacement of Audio Frequency Load Control Assess current generation of MDMS capability to deliver both the metrology based functionality and the non-metrology based functionality that underpins the benefits of SMI Accelerated life test on candidate SMI meter assets for Queensland climate zones	Distribution impact Increased understanding of affected business processes and systems Retail impact Discussions are underway to engage with a retailer to participate in the trial	Reduce risk of adverse customer reactions – provide knowledge about deployment impacts and risks to customers, including understanding customer behaviour and impact on CBA outcomes.

Company	Summary	Technology acceptance	Business impact	Consumer impact
Western Australia				
Western Power	Start Date: July 2008 End Date: Dec 2011 8500 smart meters in the Eastern Region of Perth with 2000 smart meters at edge of grid location to test communications capabilities	Trial a variety of technologies to test the functionality required by various customer densities and geographic factors Smart meter infrastructure and minimum smart meter functionality performance to be tested to DPI spec or NSSC working group draft performance standards if more applicable	Distribution impact Understand minimum technical standards Test vendor propositions and solutions Retail impact Synergy's participation in this trial is not clear.	Understand customer response and demand management Test costs and benefits
South Australia				
ETSA Distribution	Start Date: January 2005 End Date: April 2010 Direct Load Control – air conditioner	Source or develop demand response enabling devices for use with air conditioning equipment within Australia. Assess FM communication systems.	Distribution impact Develop understanding of the use of direct load control and develop control strategies for maximum load reduction with minimal customer impact. Determine the cost benefit analysis for the deployment of direct load control. Retail impact None	Develop an understanding of customer's air conditioning equipment and its typical use. Measure customer participation rates for different incentives and monitor customer response to varying load reduction control strategies.

Company	Summary	Technology acceptance	Business impact	Consumer impact
Australian Capital Territory				
ActewAGL	Start Date: February 2008 End Date: December 2010 Communications test, test change management capability, test skill set fit for work required, test customer acceptance	Fibre-to-the-Premise 3G	Distribution and Retail impact (ActewAGL is a combined distribution/retail business) Test whether the benefits outweigh the costs in the ACT for electricity, water and gas smart metering	Test preferences for in-home display versus website Test customer acceptance of end-to-end technology solution Test customer management practices required