CASE STUDY OF A SUCCESSFUL AUSTRALIAN NATIONAL ENERGY PROGRAMME/STRATEGY

ENERGY MARKET REFORM

1. The problem or issue addressed:

Efficient and effective energy markets are a key to achieving prosperity, reliability and sustainability from energy. Market reforms that encourage energy users to better manage demand, for example, will help deliver both economic and environmental gains. Reforms that facilitate more efficient transmission and distribution investment have the potential to improve reliability and maintain downward pressure on average energy prices.

In Australia, demand for stationary energy services is projected to grow by at least 50 per cent over the period to 2020. The energy industry has estimated that at least AU$37 billion in energy investments will be required by 2020 to meet Australia's future energy needs. How efficiently and effectively Australia meets this future demand will play a key role in determining future prosperity, security and sustainability of energy production and use. Market signals are needed to ensure that the right investments are made in the right places at the right times.

2. Name of the programme:

The activities outlined in this case study encompass a broad range of policy initiatives related to reform of the electricity and gas markets.

3. Timeframe: Ongoing

4. Status: ☑ Ongoing ☐ Completed in year _____

5. Main objectives:

In 2004, the Australian Government issued an energy policy statement, entitled *Securing Australia's Energy Future*. To achieve energy prosperity, security and sustainability, the Australian Government has put in place policies to:

a. attract investment in the efficient discovery and development of our energy resources for the benefit of all Australians:
b. deliver a prosperous economy while protecting the environment and playing an active role in global efforts to reduce greenhouse emissions
c. encourage development of cleaner, more efficient technologies to underpin Australia's energy future
d. develop effective and efficient energy markets that deliver competitively priced energy, where and when it is needed into the future
e. minimise disruptions to energy supplies and respond quickly and effectively when disruptions occur
f. establish an efficient energy tax base, restricting fuel excise to end use and applying resource rent taxes to offshore projects
g. ensure Australia uses its energy wisely.

The following case study is an example of how Australia is giving effect to its energy policy goals, particularly in relation to elements (b), (c), (d) and (e).

6. Lead institution:

The Ministerial Council on Energy (MCE).

7. Other implementation arrangements and stakeholders involved:

The implementation has involved all state and territory governments, as well as the Australian Government, through the MCE. In addition, there has been substantial industry consultation on all aspects of the reform program.

8. The results achieved:

Energy market reforms in Australia over the last decade, including the formation of the National Electricity Market in 1998, have delivered significant benefits, adding AU$1.5 billion a year to the economy as a whole from lower prices, better investments and the flow-on benefits of these to the competitiveness of Australian industries.

Energy market reform is an ongoing process, and substantial work still remains. The National Electricity Market is still largely a series of regional markets with limited interconnection, and the gas market is immature. Investment signals are weak in a number of important areas, like demand side participation. Reforms to address these issues are needed urgently to provide better signals for investors.

In June 2001, the Council of Australian Governments (CoAG) established the Ministerial Council on Energy (MCE) to provide national energy policy oversight and leadership, and commissioned an independent Review of Energy Market Directions. This review concluded that additional reforms would increase real Australian Gross Domestic Product by an additional AU$2 billion per annum. This process culminated in a substantial package of energy market reforms.

Australian Energy Market Agreement

In June 2004, the CoAG *Australian Energy Market Agreement* gave effect to MCE's recommendations which are being implemented through the three year Energy Market Reform (EMR) Program. The key objectives of this program include:

- rationalising the energy market's regulatory structure through implementing new governance and economic regulatory policy and creating the necessary institutional arrangements to administer this new structure; and
- addressing key issues related to the nature of the electricity and gas markets and improving user participation in the energy market.

Specific elements of the Australian Energy Market Agreement include governance and institutions, economic regulation, electricity transmission, energy user participation and gas market development. Details of each element of the agreement are outlined below.

Governance and Institutions

Under the new governance structure, the MCE is the national policy and governance body for the Australian energy (electricity and gas) market.

MCE has established two new statutory bodies to underpin the new governance arrangements:

- The Australian Energy Market Commission (AEMC) with responsibility for rule-making and market development for gas and electricity; and

- The Australian Energy Regulator (AER) with responsibility for gas and electricity market regulation, market surveillance, rule enforcement and economic (price) regulation.

The new governance arrangements provide for the separation of the rule making and rule enforcement functions. In addition, the Australian Competition and Consumer Commission (ACCC) and the National Electricity Market Management Company (NEMMCO) continue to fulfil roles in the energy market.

- The ACCC is responsible for competition regulation across the electricity and gas sectors.
- The NEMMCO operates and administers the National Electricity Market in accordance with the National Electricity Market Rules.

Economic Regulation

The economic regulation component of the EMR program includes:

- A national approach to energy access under the Trade Practices Act 1974, covering electricity and gas transmission and distribution;
  - discussions are proceeding on an appropriate design for an energy access regime.
- A National Framework for Electricity and Gas Distribution and Retail Regulation.
  - a public consultation process has considered initial issues. A framework is being developed which considers the following issues: distribution pricing for electricity and gas; licensing; industry Codes and Rules; associated electricity and gas schemes (including retailer of last resort and dispute resolution); and service standards.

Electricity Transmission

The MCE has adopted the following principles to underpin transmission policy in the NEM:

- The transmission system fulfils three key roles - it provides a transportation service from generation source to load centre, facilitates competition, and ensures secure and reliable supply.
- There is a central and ongoing role for the regulated provision of transmission, with some scope for competitive (market) provision.
- Investment decisions should be timely, transparent, predictable and nationally consistent, at the lowest sustainable cost.
- The regulatory framework should maximise the economic value of transmission, including through the efficient removal of regional price differences in the operation of the NEM.

The MCE's transmission policy framework/statement, released in May 2005, brought together key elements of the transmission reforms providing for a national approach to efficient transmission planning, investment and operation. It will ensure the delivery of integrated transmission network and energy services through the coordination of the major flow paths, congestion management, and transmission performance.

It is the concept of a national grid that will provide the platform for this national integration and coordination to take place. A national grid will give the transmission development agenda a national focus rather than a regional focus, while maintaining regional security and reliability.

Energy User Participation

The MCE policy statement on the User Participation Policy framework was released in August 2004. It recognises that greater user involvement and the subsequent creation of a more innovative and responsive retail market is a long term policy objective. The policy statement aims to develop a framework that encourages greater user participation through the following areas:

- Demand Side Response – Direct consumer participation should enable consumers to capture a greater share of economic return by reducing their energy consumption during high price periods and network congestion. Market-based approaches, such as a demand side aggregation mechanism, will be explored as they allow buyers and sellers to capture the optimal value of the demand response at least cost.
- Interval Metering – Interval metering and load control technologies remain limited in Australia. A statement on common principles for the assessment of interval meters was released in June 2005.
- Consumer Awareness – Further work is underway on development of clear and targeted consumer information that will enable consumers to improve their ability to participate in the energy market.
- Consumer Advocacy – a more workable national model for consumer advocacy across both electricity and gas is currently being developed to ensure consumers can actively participate in the development of the national energy market, both during the current 'transition' phase and into the future.

Gas Market Development

In April 2004, MCE announced the Expanded Gas Program to accelerate the development of a reliable, competitive and secure natural gas market with additional benefit of a diversifying Australia's energy sources. The program consists of three components – gas market development, gas infrastructure and upstream gas – with the intention to formulate a gas market development plan based on the first two components.

The MCE released *Principles for Gas Market Development* in December 2004, developed in consultation with industry, which are:

- Information on market and system operations and capabilities at all stages of the gas supply chain (subject to recognition of existing contractual confidentialities) should be publicly available and frequently updated.
- Gas market structure to facilitate a competitive market in all sectors.
- Gas market participants should be able to freely trade between pipelines, regions and basins.
- There should be regulatory certainty and consistency across all jurisdictions.
- Market design and institutional requirements responsive to and reflective of the needs of the market and market participants.

Based on the above principles, MCE undertook consultation in March 2005 on future options to accelerate the development of reliable, competitive and secure wholesale natural gas markets and a model involving industry and government participation is under development.

Renewable and Distributed Generation Working Group

In August 2004, the MCE established the Renewable and Distributed Generation Working Group. This Group has been established to provide strategic advice to the Standing Committee of Officials on policy directions for removing impediments to, and promoting

the commercial uptake of renewable and distributed generation technologies and practices in the Australian energy market. The working group is responsible for wind energy policy, the development of a national Code of Practice for Embedded Generation, and the Improving Grid Accessibility initiative announced in the Australian Government's Energy White Paper in July 2004.

9. The relationship of the programme to internationally agreed goals and targets:

The initiatives outlined in this case study give effect to paragraph 20 of the Johannesburg Plan of Implementation and more specifically paragraph 20(r) which `calls upon action at all levels "to improve the functioning of national energy markets in such a way that they support sustainable development, overcome market barriers and improve accessibility".

Australia is participating in multilateral and bilateral forums which are providing an opportunity to share experiences on energy market reforms. Two prominent multilateral forums in which Australia is actively engaged are the International Energy Agency (IEA) and the APEC Energy Working Group (EWG). Australia has been the secretariat for the APEC EWG since it was established in 1990. Australia also has bilateral relationships with key trading partners in the energy sector, including Japan, Korea, China, Taiwan, the United States, Indonesia and India.

IEA

The program of work pursued by the Non-Member Committee of the IEA supports the Agency's outreach activities with countries outside the OECD, focussing in particular, on rapidly developing countries such as China and India. The IEA seeks to promote understanding and communication between member and non-member countries through seminars, workshops and projects on specific topics such as energy market reform. As part of this effort, the IEA hosts periodic meetings of energy experts to share their experiences and technical and policy advice on energy issues in common.

APEC

The following demonstrates the various ways in which Australia has promoted regional energy sector reform through our involvement in the APEC EWG.

Implementation Facilitation Assistance Teams (IFAT)

IFATs were initiated in 1999 by the APEC EWG to assist APEC member economies to implement agreed energy initiatives, including power and gas sector reform. Under the program, and at the invitation of a member economy government, the EWG will put together a team of energy experts to visit the host economy to share experiences and provide advice on options and approaches to implementing energy market reform. The EWG has completed four visits which examined a range of issues including privatisation and liberalisation of the gas supply industry, third party access to the natural gas pipeline system and the power pool establishment.

APEC Projects

Australia has played a key role and overseen two APEC projects within the EWG to address the barriers to regional energy interconnections and facilitating cross border trade.

- Cross-Border Power (2002): An assessment of the barriers to power system interconnection across APEC member economies; and
- Cross Border Natural Gas Trade (2004): A report looking at the best practice in cross border interconnection of natural gas in APEC member economies.

Asia Pacific Energy Research Centre (APERC)
The Australian Government, through the APEC EWG, also works closely with the APERC. In recent years a number of APERC's research projects have provided essential information for policy makers in APEC member economies, to assist in making decisions on the development and modernisation their energy sectors.

Studies conducted to date have included an analysis of the growing trend of deregulation and privatisation of electricity supply, and the economic advantages and relevant benefits of meeting electricity demand through regional power interconnections within and between participating economies. Other studies have evaluated the economic feasibility and viability of constructing large scale natural gas pipelines to supply Southeast and Northeast Asian energy markets and assessed the impact of reforms of natural gas markets in member economies.

Further Information
Commonwealth of Australia (2004) Securing Australia's Energy Future
http://www.pmc.gov.au/publications/energy_future/index.htm

MCE Energy Market Reform Program – Key Achievements 2004
http://www.mce.gov.au/index.cfm?event=object.showContent&objectID=F99FF123-65BF-4956-BA14AC1C2165F4B4

Ministerial Council on Energy
http://www.mce.gov.au

International Energy Agency website
http://www.iea.org/

APEC Energy Working Group website
http://www.apecenergy.org.au/index.cfm?event=object.showHome