Annex 1 Expert Group Meeting, Paris
16 September 1999

Efficiency Standards for Power Generation in Australia

Good morning ladies and gentlemen

I would like to thank the Annex 1 Experts Group (AIXG) for inviting me to speak here today at your meeting on domestic policies in energy supply.

Power generation is the most significant single sector in terms of greenhouse emissions, accounting for approximately one-third of Australia's greenhouse emissions. It is a sector of vital importance to the achievement of our emissions reduction target.

To address this major source of emissions the Australian Government believes strongly that the international community must agree appropriate rules for an international emissions trading system. To achieve full market efficiencies and environmental benefits, an international emissions trading system must be open, uncapped, market-based and transparent. It must ensure that we harness market efficiencies to achieve least-cost emissions reductions.

Australia is engaged in a process of domestic consultation in relation to the establishment of a domestic emissions trading regime which, if adopted, we intend will be fully integrated with the global emissions trading system, once the Kyoto Protocol comes into force. Two discussion papers have been released, the first covering the boundaries of what a domestic trading regime could cover, and the second examining options relating to the issuing of permits. Two further papers will cover the crediting of carbon, and market design. At the end of this process, the Australian Greenhouse Office intends to put recommendations to Government for its consideration on whether or not to adopt a domestic trading regime including its relationship to the Kyoto flexibility mechanisms.

Whilst international emissions trading will be an important means of achieving least cost emissions reductions, Australia is not relying upon this measure alone. We are also undertaking domestic measures for the electricity sector which has recently undergone significant privatisation and deregulation, improving market signals. In cooperation with State and Territory governments, the Commonwealth Government is currently developing Efficiency Standards for Power Generation. Through the implementation of the Efficiency Standards measure we expect the overall technical efficiency of Australian generation plant to increase and greenhouse gas emissions to reduce.

The Efficiency Standards measure is still being developed, and it is this process of development that I would like to describe today. I will be covering:

- Power generation in Australia and its greenhouse implications
- The historical context
- The objectives of the measure
- Setting the standards
- Consultation process, and conclude with
- Lessons learnt

Prior to focusing on the measure, however, I would like to highlight:

- The unique position of Australia in relation to greenhouse gas emissions.
- The role and programs of the Australian Greenhouse Office (AGO).

Australia's Unique Position

Australia is, in many respects, unique among Annex 1 parties. We have a small, but rapidly growing population in comparison to our landmass. Vast distances separate urban centres, and even greater distances separate Australia from many of its trading partners.

In contrast to other OECD countries, Australia is a major resource and energy exporter, and has a small manufacturing base. Australia is the world's largest coal exporter.

Value adding to export resources, such as aluminium, through energy intensive processing has been a major cornerstone of export industry policy by successive governments.

The Historical Context

The Efficiency Standards for Power Generation measure was announced by the Australian Prime Minister in November 1997 as part of the 'Safeguarding the Future' statement. The Statement included a $180 million package of greenhouse response measures, a comprehensive range of initiatives focusing on major greenhouse sources, sinks and solutions. The Statement included the establishment of the AGO, a world first, responsible for coordinating Australia's domestic climate change policy and delivering key domestic greenhouse response measures.

The Commonwealth Government has recently reinforced its greenhouse commitment, announcing a signficant increase to existing funding by $189 million per annum over four years from 2000-2001. It is now investing almost a billion dollars in addressing greenhouse issues over a five-year period.

The Greenhouse Implications of Power Generation in Australia

Australia produces just over 400 million tonnes of greenhouse gas emissions a year. In calendar year 1998, greenhouse gas emissions from fossil fuel based power generation accounted for 162 million tonnes of carbon dioxide equivalent greenhouse gas emissions. In other words, power generation accounts for over one third of Australia's total emissions

Therefore, reducing emissions from fossil fuel power generation is central to reducing Australia's overall greenhouse gas emissions.

Scope of the Measure

The key objectives of the Efficiency Standards for Power Generation measure are to:

- Achieve movement towards best practice in the efficiency of fossil-fuelled electricity generation; and
- Deliver reductions in the greenhouse gas intensity of energy supply.

The best practice performance that can be achieved depends largely on the fossil fuel and the latest proven technology that is available. However, the measure does not distinguish between fossil fuels

Who is covered by the measure?

The measure covers businesses with power generation plant that:

- use brown coal, black coal, natural gas and other fossil fuels
- generate power using existing, refurbished or new plant
- sell power to the grid or are self generators that use it internally
- have a total installed plant capacity equal to or above a minimum threshold, probably 30MW

A key underlying principle is that the measure be developed in a fuel neutral and least-cost manner that is consistent with achievement of the objectives, and with the least possible effect on international competitiveness.

Consultative Process

The AGO recognises the importance of effective consultations with key stakeholders and the wider community in the development of equitable and workable programs.

An Efficiency Standards Working Group was established in early 1998 to develop recommendations to government on the measure. This group comprises a broad range of representatives encompassing industry associations, the Commonwealth government, as well as State and Territory governments. The AGO has also undertaken extensive consultations including public forums across the country, an industry seminar and invited public comment on papers on the measure.

Expert Advice

In early 1999 industry experts were engaged to provide technical and economic advice on potential standards and the economic implications on the measure. In particular, they

- Identified world's best practice generating efficiency
- Benchmarked Australian plants likely to be affected by the measure
- Recommended potential efficiency standards for Australian fossil fuel generators.

While the reports are currently being finalised, their initial findings identified that a potential reduction of between 4 and 5 million tonnes is achievable under the measure. This represents a reduction of approximately 3% of current emissions.

Developing Options and Models

The Working Group is currently considering several options, including a purely regulatory or a voluntary model. A third option, building on the regulatory model, includes a deeming provision to recognise other programs.

A fully legislated option provides for relative investor certainty, and can ensure comprehensive coverage. This avoids any "free-riding" potential, which is inherent in voluntary programs and is particularly important in setting standards for new plant.

The deeming option is a sub-set of the legislative option. Some existing plant could be deemed to comply with the efficiency standards measure if they participate in a recognised voluntary scheme.

The wholly voluntary option provides the least certainty. There are a number of reasons for this including:

- How do you overcome the 'potential' free rider problem?
- How do you ensure plant meets the standard?
- There could be confusion over the requirements of two voluntary greenhouse programs.

Key Barriers and Potential Solutions

A number of strategies have been adopted to overcome potential barriers in developing and implementing the measure. The key barriers are:

- Gaining industry acceptance of the measure.
- Identifying appropriate technical standards.

- The time required to enact legislation
- Identifying the appropriate framework in which legislation is developed.

The development of efficiency standards may be a challenging process but none of the barriers are insurmountable. Key considerations overcoming the barriers are:

- A clearly stated aim with a well defined objectives
- Successfully integrating standards with other greenhouse measures
- Drawing on expert advice
- Effective consultation with stakeholders
- Having a realistic concept of the timeframe involved in developing and implementing the measure
- Providing clear signals to industry and the financial community.

Conclusion

In closing, Kyoto presents Australia with significant challenges and opportunities in all sectors, but particularly in energy. The measures to reduce greenhouse gases from power generation are important in meeting this challenge. Efficiency standards will need to be effectively integrated with any potential international or domestic emission trading system that may emerge with the entering into force of the Kyoto Protocol.

Australia needs to focus on achieving best practice for Australian conditions in efficient use of our fossil fuels. It is important that we get the outcomes from our energy market reform process that balance both economic and environmental outcomes.

It is crucial that we get the measure right, so that in the new millennium Australia is at the forefront of greenhouse gas abatement.