ESAA Submission to the Federal Parliament's Joint Standing Committee on Treaties

Inquiry into the Kyoto Protocol

The Electricity Supply Association of Australia Limited (ESAA) represents public and investor-owned electricity supply businesses, including generators, transmission and distribution businesses and electricity retailers. The public electricity supply industry has a revenue base of $13 billion, more than 8.5 million customers, including 7.3 million residential customers. The electricity supply industry has an investment base of $65 billion, employs 30 000 people and generates 186 TWh of electricity from 39.3 GW of installed plant.

In 1998, electricity supply businesses emitted approximately 169 Mt or 37 percent of Australia's greenhouse gas emissions, not including forestry and grassland conversion (land clearing).

Australia has an abundance of competitively priced black coal and an almost infinite supply of brown coal, which due to its high moisture content, has no intrinsic export value. The coal base of electricity supply is fundamental to the Australian economy as it provides some of the lowest electricity prices in the world for both industrial/commercial and residential customers. Black coal generated 55 percent of Australia's public electricity, brown coal 28 percent, hydro 9 percent, gas 7 percent and oil around 1 percent.

Public electricity generation is driven purely by customer demand. Generation is forecast to grow from 186.3 terawatt hours (TWh) in 1998/99 to 254 TWh by 2010 and to between 290 and 315 TWh by 2020.

On a business-as-usual coal-based forecast, electricity related greenhouse gas emissions will increase from 169 Mt in 1998, to 219 Mt in 2010. A difficult, but potentially possible scenario, is to achieve a 15 percent gas base in generation by 2010. This will reduce emissions to 206 Mt, still some 59 percent above 1990 levels of 129 Mt.

The predicted growth in emissions to 2010 is based on a projected increase in demand of some 60 TWh. However, there are a number of options available to curb demand for electricity and/or reduce emissions of greenhouse gases, principally CO_2, into the atmosphere. By far the most cost-effective option, and one of the more difficult to implement, is demand reduction through end-use efficiency. ESAA believes that a co-ordinated national energy efficiency program can reduce demand growth by half by 2010 with a commensurate greenhouse benefit and an even more significant customer benefit.

Apart from some fuel switching from coal to gas for intermediate and peak load supply which can achieve a modest 13 Mt reduction, other abatement options include biological and geological carbon sequestration, generation efficiency improvements and advanced coal plant, renewables, fuel cells and nuclear power. These options are considerably more expensive than conventional coal or demand management.

The current level of greenhouse gas emissions reflects not only growth in electricity demand, but also the increased share of coal in the generation mix in the competitive electricity market.

A detailed paper on 'Microeconomic Reform and the Environment – The Electricity Sector' is being prepared for the Productivity Commission[1] and it will be made available to the Committee.

ESAA has been engaged in the development of the submission to this inquiry by the Australian Industry Greenhouse Network and has endorsed the AIGN submission. In addition, ESAA wishes to emphasise the following points:

The implications for Australia proceeding or not proceeding to ratify the Kyoto Protocol and meeting its target emission levels by 2008 with regard to anticipated and/or predicted economic, environmental and social outcomes both nationally and in specific regional areas.

- ESAA supports Australia's commitment to accept a fair share of the burden in a global response to climate change issues while not compromising the competitiveness of Australian industry particularly as it relates to exports and imports-competing businesses.

- The Kyoto Protocol has two principal failings: most Annex B nations, including Australia, cannot achieve their legally binding obligations in the first commitment period, making ratification of the Protocol in its current form uncertain and; the Protocol fails to require any emission restraints from non-Annex 1 countries that will have the highest growth in emissions over the next 30 years.

- In addition, many of the proposals under negotiation for implementation of the Kyoto Protocol are not least-cost and this will be further compounded by omitting non-Annex 1 countries from binding requirements.

- The requirement for the Protocol to cover all significant emitter countries is not only a trade and economic imperative; it is also a key environmental requirement.

- Ratification by Australia should only proceed upon satisfactory resolution of the key outstanding Kyoto Protocol issues:
    - unrestricted joint implementation and emissions trading between Annex B parties
    - effective use of the Clean Development Mechanism between developed and developing countries involving minimal external interference and minimal transaction costs
    - full recognition of sinks, included as part of the clean development mechanism, and in particular, Australia's requirements for forestry and grassland conversion (land clearing reductions)
    - non-Annex 1 commitment to binding greenhouse gas abatement
    - adequate recognition of the value of technology transfer and capacity building involving developing countries
    - a flexible regime of policies and measures enabling Australia to meet its commitments in a flexible and effective manner.

[1] Microeconomic Reform and the Environment – the Electricity Sector
Margaret Beardow and Harry Schaap, August 2000, Productivity Commission

- A much more comprehensive assessment is needed with respect to understanding anticipated and/or predicted economic, environmental and social outcomes both nationally and in specific regional areas.

  Many complex and interacting economic, social and regional processes will need to be better understood before Australia can fully commit to the Kyoto Protocol. For instance, the application of a carbon tax or a wrong emissions trading allocation process could have very significant regional and national implications.

  ESAA is conducting a microeconomic assessment for electricity generators of administrative allocation options for electricity supply that will need to account for a range of principles including: different fuel types, new and existing generators, multi-commitment periods, not penalise early greenhouse action, no windfall profits, no gaming, regional differences, and be as simple and market-based as possible. The output from the study will be made available to promote a wider debate on emissions trading.

The veracity of conflicting current scientific theories on global warming and solutions proposed for it.

- ESAA accepts that greenhouse science is soundly based and that greenhouse gas emissions will lead to global warming that may have subsequent effects on global and regional climate. However, many scientific uncertainties remain not only about aspects of greenhouse science but also about appropriate response options.

- ESAA believes the activities of the Inter-government Panel on Climate Change (IPCC), and in particular its work on the assessment of greenhouse science are important contributions to policy-making. Although there are uncertainties in the science of climate change, ESAA accepts that there is sufficient reason to be concerned that increasing levels of anthropogenic greenhouse gases lead to interference with the world's climate system.

- ESAA believes the ongoing activities of the IPCC and the associated activities being undertaken by the Australian Bureau of Meteorology, the CSIRO, the Australian Bureau of Agriculture and Resource Economics, and others in Australia, and socio-economic impact, and formulating appropriate response strategies, need strong support.

  It is particularly important that adequate Government research funding is provided to advance greenhouse science, impact assessment and response options, particularly given Australia's unique southern hemisphere location and isolation.

What definitions and criteria Australia should develop and actively pursue in its national interest with regard to grandfathering, trading credits, carbon credits, sequestration, revegetation, land management and definitions.

- ESAA has developed policy statements on energy supply, greenhouse response and greenhouse gas emissions trading (refer to attachments). Given the importance and growing significance of electricity supply in a modern society, developing definitions and criteria must take into account our growing dependence on a quality electricity supply.

- ESAA has two key greenhouse response objectives: to see the carbon intensity of electricity supply reduced, and supply and end-use efficiency improvements.

- ESAA broadly supports Australia moving towards an emissions trading scheme for implementation by the beginning of the first commitment period or earlier if in the national interest. Australia should not adopt a greenhouse gas emissions trading scheme ahead of the Kyoto Protocol being ratified and without an agreed international emissions trading scheme.

- Continued voluntary early action should be encouraged with due recognition for greenhouse gas reductions, sequestration and displacements as part of a future emissions trading scheme. ESAA supports the need to implement the 'no disadvantage' principle for businesses taking early action and the need to advance the 'credit for early action' agenda. There is a need for a clear policy pathway for achieving national greenhouse gas objectives.

- With respect to emissions trading, ESAA supports an administrative sectoral allocation process for the allocation of greenhouse emissions permits. Although domestic allocation processes do not need to be part of designing an international emissions trading scheme, they will have a profound effect on the national and regional economy. As mentioned previously, ESAA is undertaking a major microeconomic study on administrative allocation on a sectoral basis for electricity supply.

- Considerable confusion exists nationally and internationally about greenhouse gas emissions trading, carbon credits, sequestration and biomass related activities. For all these issues, a guiding principle should be the benefit or impact on the levels of greenhouse gases on the environment.

- Greenhouse gas emissions trading benefits the environment by limiting emissions through legally binding targets. The resultant scarcity of greenhouse gas emissions permits places a price on carbon that can be minimised through unrestricted trading, nationally and internationally on the basis that businesses and countries have different opportunity costs to reduce emissions.

  Biological sequestration through revegetation, land management, etc benefits the environment by removing carbon dioxide from the atmosphere and storing it short or long-term in biomass. Providing this type of carbon storage can be adequately verified, it can be assigned a 'carbon credit' that, like a greenhouse gas emissions permit, can become a tradable commodity as it leads to emissions reductions.

  A significant issue, nationally and internationally, is to understand the value of biological sequestration and the ability to assign a verifiable greenhouse benefit that can be taken into account as part of Australia's greenhouse target.

  A closely related issue is 'forestry and grassland conversion' or land clearing. It is both critical for Australia to reduce its rate of land clearing and to obtain adequate recognition for it under the Kyoto Protocol provisions. At present, the benefit of reduced land clearing from 1990 has reduced Australia's net greenhouse gas emissions by around 40 Mt per year.

More significantly, reducing the remaining 60 Mt or so of emissions may well be more cost-effective than reducing emissions from other sectors, including electricity supply. An eventual emissions trading scheme must incorporate land-use change emissions because it can assist in finding least-cost reductions.

It is imperative for Australia that issues related to forestry and grassland conversion and definitional issues related to 'forests' are resolved in a manner that provides the full and justified greenhouse benefits to the nation.

The economic, environmental and social implications of a punitive approach to any domestic regulation of industry including such proposals as a carbon tax and an incentive-based approach.

- At present, electricity supply businesses are subject to two mandated greenhouse response measures that are not cost-effective in terms of reducing greenhouse gas emissions, namely mandated renewables in electricity supply and generation efficiency.

  Although these measures are not cost-effective in greenhouse terms, ESAA has worked with the Government to achieve workable outcomes because of the renewable energy industry stimulation value of the renewable energy measure and the greenhouse awareness value of the generation efficiency measure. Fully implemented, the combined measures can reduce greenhouse gas emissions by up to 12 Mt per year if renewables replace coal, but by about 8 Mt if they displace gas generation.

- Broadly, ESAA members do not accept prescriptive use of regulations and standards to deliver greenhouse outcomes. If regulations and standards are necessary, because they offer superior greenhouse benefits, they should be pursued using market-based mechanisms for their effective delivery.

  Ultimately, relatively unrestricted national and international emissions trading has the potential to offer least-cost greenhouse gas reductions, but in all probability not low-cost reductions. Hence it is critical to get the design of an emissions trading scheme right in the first place. The ESAA policy statement on greenhouse gas emissions trading sets out most of the required parameters.

  Careful consideration of administrative allocation processes coupled with relatively unrestrictive emissions trading is most likely to provide the best incentive-based approach to reducing greenhouse gas emissions. Initial administrative allocation provides business certainty and profitability as well as regional security for many parts of Australia. Subsequent emissions trading will then provide the most cost-effective means of meeting emissions targets.

- ESAA has contracted research bodies to undertake a number of macro and microeconomic studies - all indicate that carbon taxes are blunt policy instruments that cannot deliver greenhouse gas reductions at least-cost or do much to change the pattern of electricity production and use. ESAA does not support proposals for a carbon tax.

ESAA POLICY STATEMENT ON GREENHOUSE RESPONSE

Approved by the ESAA Board on 25 February 1999

The Electricity Supply Association of Australia Limited (ESAA) is committed to the production, distribution and use of electricity in Australia in a manner which abates overall greenhouse gas emissions.

- ESAA acknowledges that the combustion of fossil fuels leads to an increase in greenhouse gas concentrations in the atmosphere over natural levels and that the balance of evidence suggests a discernible human influence on global climate. However, uncertainty remains. In the face of this uncertainty, ESAA members will act prudently.

- ESAA supports action to abate greenhouse gas emissions, to enhance sinks for absorbing greenhouse gases and to pursue research into possible greenhouse responses. Australia should make an equitable contribution to this effort.

- ESAA endorses the objectives of the National Greenhouse Strategy and notes that in part the strategy adopts measures beyond "no-regrets". A cooperative approach to implementing such measures is the best way to achieve least-cost outcomes. ESAA also endorses the Government's pursuit of a cooperative international approach.

- ESAA acknowledges that the electricity supply industry, as a major industry, has a key role to play in greenhouse response action. ESAA members will pursue measures to reduce emissions and enhance sinks, and to enter into cooperative agreements with Government to enhance these efforts.

- ESAA is committed to making government greenhouse response programs workable using market-based mechanisms that provide property rights to emission reductions, carbon credits and renewable energy credits.

- ESAA will produce a Code of Greenhouse Practice to provide guidance to member businesses with respect to effective implementation of response measures.

ESAA POLICY STATEMENT
ON GREENHOUSE GAS EMISSIONS TRADING

Electricity supply greenhouse objectives

The Electricity Supply Association of Australia Limited (ESAA) and its members have the following greenhouse response objectives:

- Reduce the carbon intensity of electricity supply by improving electricity supply efficiency and promoting lower, or zero, net carbon dioxide emitting generation, where commercially viable,

- Improve end-use efficiency by promoting the use of more efficient appliances, plant and equipment, and promoting the use of efficient and effective electric technologies.

Greenhouse gas policy

- Australia will need maximum flexibility in meeting its Kyoto Protocol target. This includes the use of the Clean Development Mechanism, Joint Implementation and International Emissions Trading.

  There is a need to advance the 'credit for early action' agenda by defining and applying the 'no disadvantage principle' and setting out a clear policy pathway for achieving national greenhouse gas reduction objectives.

  Continuing voluntary early greenhouse action should be encouraged with due recognition for greenhouse gas reductions, sequestration and displacements as part of a future emissions trading scheme.

- Australia should not adopt a greenhouse gas emissions trading scheme ahead of the Kyoto Protocol being ratified and without an agreed international emissions trading scheme.

- ESAA and its members are broadly supportive of moving towards an emissions trading scheme for implementation by the beginning of the first commitment period or earlier if in the national interest.

  There is value in confirming emissions trading principles as soon as possible for business investment certainty, but not for triggering early.

- Emissions trading (and other greenhouse abatement measures) must not reduce Australia's international competitiveness.

- An emissions trading system must protect business value (both suppliers and customers) and be equitable and fair.

  An emissions trading scheme should be designed on a basis which does not disadvantage new entrants with lower greenhouse gas emissions on an equal unit output basis.

- Market-based mechanisms, such as a greenhouse gas emissions trading scheme, are preferred over narrow prescriptive mechanisms and taxes because they deliver agreed outcomes at lowest cost.

- Every sector should contribute to greenhouse gas reduction and emissions from all sources should be covered.

- There is a need for a consistent comparative evaluation of all economic instruments for greenhouse response options and ESAA supports a government - industry study to deliver it.

Emissions trading design

- Emissions trading should be based on sectoral allocations and allow for inter-sectoral trading.

- Business certainty will be enhanced by a once-only permit allocation process with multi-period validity for acquittal. Given the long investment cycle in electricity supply, emissions trading permits should be allocated on a basis that provides business certainty for existing emitters and for new entrants.

- An administrative allocation process that assures emission rights and access to free permits within the sectoral cap, supported by a 'baseline and credit' type system of emissions trading, is desirable in the first instance for an essential growth sector like electricity supply.

  ESAA and its members are confident that an administrative allocation system can be designed that is simple, effective, does not impinge on competitiveness, accounts for equity and fairness, enshrines the rights of new entrants, achieves the sectoral target and reduces the carbon intensity of electricity supply over time.

ESAA Energy policy statement

Energy underpins the economy and living standards in Australia, servicing households as well as commerce and industry at some of the world's lowest costs.

It provides significant direct and indirect employment, substantial investment opportunities and large export earnings.

Energy-intensive industries make a major contribution to the national GDP.

Continuing reliable, competitively-priced energy supply is critical to the success of the national economic reform agenda.

At the same time the supply and end-use of energy have environmental impacts in relation to greenhouse gas emissions, the maritime environment, biodiversity and salinity – as well as cultural and aesthetic heritage impacts.

Australian energy supply is also undergoing significant change, affected by strong economic growth, sustained population growth, micro-economic reform and environmental policies.

Against this background, policy needs to be set to maintain the reliable supply of competitively-priced energy for business and individual needs as well as to reduce damaging impacts on the environment.

The critical elements in pursuit of these objectives are:

- Maintenance of competitively-priced energy supply;
- Provision of nationally-integrated, market-based arrangements to allow customers optimum choice of energy sources and suppliers;
- Encouragement of continuous improvement in existing energy supply and end-use towards world-class efficiency;
- Requirement of world's best practice in new energy project development and operations;
- Integration of Federal Government economic and environmental policy; and
- Rationalisation of energy regulation to promote efficiency and to eliminate unnecessary costs and risks.

Integration of Federal, State and Territory energy-related policy to eliminate contradictory, overlapping and inefficient approaches to development should aim to:

- Sustain international trade competitiveness;
- Correct identified problems through efficient market outcomes;
- Facilitate inter-fuel competition in the national energy market;
- Ensure that all stakeholders (government, business and consumers) bear the costs and risks that are appropriate and equitable; and
- Foster innovation that benefits the community as a whole by supporting research and development in partnerships with business.