



**ENGINEERS  
AUSTRALIA**

# **EMISSIONS TRADING SCHEME DISCUSSION PAPER**

## **SUBMISSION TO THE GARNAUT REVIEW**

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## 1: INTRODUCTION

Engineers Australia is the peak body for engineering practitioners in Australia, representing all disciplines and branches of engineering. Membership is now approximately 83,000 Australia wide and Engineers Australia is the largest and most diverse professional engineering association in Australia. All Engineers Australia members are bound by a common commitment to promote engineering and to facilitate its practice for the common good.

Since 1989, Engineers Australia has had in place sustainable development principles to guide members in the conduct of their engineering practice. Sustainable development is an integral component of Engineers Australia's code of ethics which are agreed by all members. Engineers Australia has also formally endorsed a Sustainability Charter and a comprehensive policy on Australia's energy future and climate change.

Engineers Australia warmly welcomes the formal ratification of the Kyoto Protocol by the new Federal Government and other steps taken to put in place an enduring framework to achieve reductions in greenhouse emissions, including your review. In an earlier Submission, Engineers Australia highlighted the tenets and principles of its climate change and energy policy. This Submission elaborates on these matters in the context of the questions raised in the discussion paper on an Emissions Trading Scheme.

Engineers Australia is strongly supportive of emissions trading to address cost effective emissions reduction, providing this is done as part of a holistic emissions reduction policy. All credible research indicates that while moving to a lower emissions world will entail large costs, proportionally these can be met by the economy without major implications for growth. Effective use of the revenue from the auction of emission permits can ease the burden of adjustment. There are no guarantees that current energy providers will be energy providers in the future. Provided that current asset owners are not constrained in passing through to consumers the opportunities costs from their obligations to hold emissions permits, revenue growth and asset age will be the main determinants of asset value.

## 2: CONTEXT FOR EMISSIONS TRADING

Engineers Australia believes that a comprehensive emissions trading scheme for Australia is essential to achieve significant reductions in emissions in an economically efficient manner. Engineers Australia also agrees with the Review's position on the central importance of an emissions limit and the emissions reduction trajectory to be followed to achieve it. However, it is just as important to recognize that emissions trading is no panacea. Unless it is established as the central core of a comprehensive policy framework to tackle emissions reduction, including policies directed at existing and established technologies that can reduce energy demand, new technologies that are capable of producing low or no emission energy and that recognizes that not all barriers to new directions will be addressed through a carbon price, progress may prove to be more limited than the circumstances require.

The discussion paper has recognized the importance of the government's expansion of the Mandatory Renewable Energy Target (MRET) to 20% in driving the deployment of

increasingly expensive technologies in the medium term. Engineers Australia has supported this position for many years as vital in addressing the incumbency advantages of existing technologies, advantages which manifest themselves both in the production of energy in the market place and in the context of the debate now underway to define how change will come about.

Engineers Australia notes and accepts the Review's point that the interaction between emissions trading and MRET will have a bearing on the outcome for carbon prices and thus the effectiveness of emissions trading. The most obvious issue which will need to be addressed is the number of permits that should be issued given the emission limit set by the government. MRET will ensure that emissions growth will be lower than in its absence and this means that fewer permits should be issued for any given point on the emissions reduction trajectory. Providing the necessary reduction in permit numbers is correctly estimated, the carbon price established by emissions trading should be unaffected.

This argument also applies to energy efficiency options which do not respond to carbon prices. Some energy efficiency options, particularly in high energy consuming commercial entities, are likely to be responsive to carbon prices. However, many energy efficiency options are impeded primarily by non-price barriers. Just as there are sound arguments for an MRET driving the deployment of renewable technologies in the medium term, there are equally sound arguments for the inclusion of regulatory and other policies to address non-price barriers in a comprehensive emissions reduction framework. Emissions reductions achieved through energy efficiency also interact with emissions trading and the number of permits issued will need to be reduced in a corresponding way. Indeed, credible research by the International Energy Agency<sup>1</sup> suggests that the potential for energy efficiency to reduce emissions is much higher than that of an MRET set at 20%. In other words, the potential interaction between energy efficiency and emissions trading is likely to be greater than between the MRET and emissions trading.

## 2: FRAMEWORK TO GUIDE ETS DESIGN

Engineers Australia strongly supports a simple objective statement and the design principles proposed in Chapter 2 of the discussion paper. Separating relevant issues into intrinsic and extrinsic design feature greatly assists clarity.

- **Coverage:** Engineers Australia has long supported full coverage of the Australian economy by emissions trading. While the technical matters raised in relation to including agriculture and forestry are difficult and require some time to resolve, Engineers Australia would prefer that an announcement that emissions trading will commence include these sectors from the outset. If technical circumstances require a deferred commencement date then so be it, but the sectors should be put on notice that they are to be included when the technical issues have been resolved to standards compatible with international agreements.

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<sup>1</sup> International Energy Agency, Energy Technology Perspectives 2006, Scenarios and Strategies to 2050, In Support of the G8 Plan of Action, OECD, 2006, [www.iea.org](http://www.iea.org)

- Points of obligation; In principle Engineers Australia appreciates the desire for flexibility concerning the point of emissions obligation argued in the discussion paper, but notes that the reporting thresholds in the National Greenhouse and Energy Reporting legislation effectively negates any flexibility.
- Emission reduction goal and trajectories; Engineers Australia supports setting a long term Australian emissions reduction goal and the trajectory to be followed to achieve it. The rolling 5 year schedule for permit allocation and 5 year advice period before shifting to a more constrained trajectory provides clarity and more than adequate notice. Using the one approach for domestic management of emissions trading and to adjust towards the trajectory required by international obligations is effective and also supported.
- Permit issue, auctions and revenue; Engineers Australia strongly supports auctioning all permits. Other approaches require administrative rules which introduce complexity and scope for arbitrary actions which are unnecessary. Engineers Australia has always supported adjustment assistance to trade exposed industries and notes that the process proposed will rigorously examine the extent of support on a case by case basis. Providing the support determined in this process in the form of cash or free emissions permit is immaterial provided this approach is not diluted. Engineers Australia believes that permit revenue should be used to assist the adjustment to the carbon constrained world ahead. The list of situations canvassed by the Review is supported.
- Banking; while recognizing the additional flexibility that banking provides, Engineers Australia has some misgivings about allowing unlimited banking. Excess borrowing is not unknown in conventional finance where governance and regulations are based on extensive experience. In the carbon market there will be many lessons to be learnt before Australia could rely on a commensurate level of confidence.
- Governance; Engineers Australia strongly supports the independent governance arrangement proposed by the review. For emissions trading to be credible and to maximize prospects for success, governance arrangements should be Australia wide and not subject to needless jurisdictional variation and should be independent from day to day politics.

### **3: FUTURE INVESTMENT IN ELECTRICITY GENERATION**

Engineers Australia's general position on permit auctioning and how the proceeds of permit auctions should be used has already been covered above. Proponents of compensating existing electricity generators for perceived loss of asset value argue that without compensation new investment would be discouraged leading to electricity supply problems.

However, this argument fails to distinguish between existing generating assets and new generating assets required to keep pace with demand. As the discussion paper notes the EU experience reinforces a priori arguments concerning existing generators passing on to consumers the opportunity costs of permits. The resulting higher revenue flow

renders meaningless claims that asset values will deteriorate. The main influence on existing asset values in coming decades will be asset age. By 2030, a common focus for intermediate emission reduction targets, some 58% of current generating capacity will be 40 or more years old. Already some 17% of generating capacity is renewables and by 2030 the MRET will increase this share even more.

However, for some years now the National Electricity Market Management Company (NEMMCO)<sup>2</sup> has been indicating that by 2010 (give or take a year depending on drought impacts on hydro generation), significant new additional generating capacity will be required if supply shortages are to be avoided. There is an unfortunate coincidence of timing here which may warrant special consideration. While asset values may not figure as strongly in this situation as some have argued, there is a threshold decision that must be made by government about whether or not any new fossil power stations are to be approved and if approved are they permitted to use existing technologies (arguments of cost, familiar technology, ease of construction, no hidden cost) or will approval be contingent on new lower emission technology being deployed (gas has lower emissions, newer coal technologies have higher fuel efficiencies and prospects of coupling to carbon sequestration are technologically less onerous and expensive). The issue is not simply one for electricity generators but will be a major test of the public credibility of climate change policy. The dynamics of this debate will have an impact on prospective investors, possibly a decisive one.

Engineers Australia believes that this coincidence of timing means that some government intervention it will be unavoidable. Another lesson from the EU experience is that participants in emissions trading will require some time to become fully familiar with its institutions and impacts. Engineers Australia believes that during this interval the electricity supply issues raised by NEMMCO may not be adequately dealt with causing major consequences for Australian commerce and life in general.

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<sup>2</sup> See for example National Electricity Market Management Company, Australia's National Electricity Market, Statement of Opportunities 2006, Executive Briefing, 2006, [www.nemmco.com.au](http://www.nemmco.com.au)