

Carbon Price Legislation Branch
Climate Strategy and Markets Division
Department of Climate Change and Energy Efficiency
Email: cleanenergybills@climatechange.gov.au

Dear sir/madam

The Energy Efficiency Council supports the overall direction of the Australian Government's Clean Energy Future legislation package, noting that much of the details of the package have yet to be released.

The Energy Efficiency Council is the peak body for energy efficiency in business and government, and brings together Australia's top expertise in energy efficiency to support the development of policy and programs. Energy efficiency is a major and rapidly growing industry, and the Council's members have a global turnover exceeding \$200 billion per annum.

Australia needs to dramatically improve its energy efficiency to boost the competitiveness of our businesses and improve the welfare of households, irrespective of the imperative to reduce greenhouse gas emissions. The Energy Efficiency Council believes that the Clean Energy Future package will help strengthen the Australian economy by boosting productivity and preparing the economy for rising fossil-fuel prices.

Global oil, gas and coal prices are rising, in part due to rapid economic growth in Asia. Although short-term global economic conditions could depress fossil fuel prices, the trend towards higher fossil fuel prices is inexorable. High fossil fuel prices will benefit Australian companies that are involved in the extraction and sale of fossil fuels, but could reduce the growth of the rest of the Australian economy unless Australia either taps into a range of other forms of energy supply or becomes dramatically more efficient with fossil fuels.

The Energy Efficiency Council supports investment in research, development and deployment of renewable energy technologies, but it will be many years before these technologies substantially displace fossil fuel use. As a result, fossil fuels will likely have a major role in Australia's energy supply for many years, which means that the strength of Australia's economy will be affected by our efficiency at turning fossil fuels into useful services.

There is considerable scope to improve energy efficiency in Australia. For example, over two thirds of the energy in coal is lost as heat when it's burnt in places like the La Trobe and Hunter Valleys. A further 10 per cent of the energy is lost during transmission and distribution, and in the case of a standard halogen lightbulb over 90 per cent of the remaining energy is lost as heat.

A diverse mix of generation and end use technologies across the economy could increase the economic benefits we get from each unit of fuel. A cogeneration system converts more than 70 percent of the energy in gas into useful services, by generating electricity and using the waste heat to cool and warm buildings. There are virtually no losses between the generator and the appliances it powers, and if a cogeneration system is combined with a compact florescent bulb it would result in five times as much light out of each unit of fuel compared to a coal-fired generator and a halogen lightbulb.

The economic benefits from energy efficiency are substantial. Climate Works Australia estimates that improved energy efficiency could save Australia \$5 billion a year and cut greenhouse gas emissions by over 50 Megatonnes a year by 2020. However, this estimate is likely to underestimate the benefits of improved energy efficiency, as it does not include the potential for distributed generation and reduced peak demand to reduce expenditure on the electricity transmission and distribution network.

Electricity transmission and distribution businesses are planning to spend over \$39 billion over five year on the electricity network. This expenditure will substantially increase energy bills, and Professor Garnaut recently estimated that network investment was responsible for 68 per cent of recent energy price rises. This expenditure, and future expenditure, could be substantially reduced by reducing peak demand. For example, the Prime Minister's Task Group on energy efficiency estimated that a national energy savings scheme could reduce expenditure on electricity infrastructure by \$12 billion to 2040.

In addition to economic benefits, the International Energy Agency has also estimated that energy efficiency is the largest source of potential global greenhouse gas abatement to 2030. The Energy Efficiency Council supports the Australian Government's intention to reduce Australia's greenhouse gas emissions, and notes that tapping into the potential for energy efficiency will substantially reduce the cost of meeting Australia's bipartisan greenhouse gas reduction target.

However, there are a number of barriers to energy efficiency that prevent us from tapping into its potential. These barriers have been well articulated in the Report of the Prime Minister's Task Group on Energy Efficiency, and include

- A failure to ensure that private price signals and regulations reflect the environmental costs of energy use (e.g. greenhouse gas emissions).
- A failure to ensure that private price signals and regulations reflect the wider economic and social benefits of demand-side activities. For example, the National Electricity Market currently fails to incentivise distributors, energy users and market intermediaries to reduce peak demand; and
- Barriers that prevent individuals and companies from investing in privately cost-effective energy efficiency. These barriers include:
 - o Information gaps and information asymmetry
 - o Bounded rationality
 - o Misaligned incentives

The Energy Efficiency Council strongly supports the use of a carbon price to ensure that private price signals incorporate reflect the costs of greenhouse gas emissions. This submission does not provide detailed commentary on the legislation.

The Council notes that a carbon price will not address the other barriers to energy efficiency, and therefore recommends a suite of complementary measures, including energy market reform. The Council strongly supports the intent of a number of the complementary policies that the Australian Government announced as part of the Clean Energy Future package, including:

- Clean Energy Financing Corporation
- Clean Technology Investment Program
- Clean Technology Food and Foundries Investment Program
- Clean Technology Innovation Program
- Low Carbon Communities program
- Energy Efficiency Information Grants; and
- further work on a National Energy Savings Initiative

The Energy Efficiency Council notes that the effectiveness of these programs will depend on their design details. The Australian Government has not released the details of these programs as part of the Clean Energy Future legislative. The Council will comment on the details of these programs during the consultation processes for these programs.

Please contact me on 03 8327 8422 should you require further information on any of the issues raised in this submission.

Yours sincerely



Rob Murray-Leach
Chief Executive Officer