ATTACHMENT

Australian Gas Association
Comments on
Productivity Commission Draft Report on Energy Efficiency, April 2005

The following comments refer directly to stated sections and pages of the draft report.

7.5 Appliance Energy Performance labels

Table 7.2 in this section regarding gas appliances is not accurate. The references to energy performance labels and minimum energy performance labels for gas appliances are inaccurately quoted as mandatory requirements in the table. These are not directly legislated requirements in any State of Australia.

The AGA has an existing primarily appliance safety (with an adjunct national MEPS / energy labelling scheme) which has been in operation for many years, and is called up in all Australian State legislation. However, there are also other independent third party certification bodies (besides the AGA) now competing with the AGA in the Australian gas product certification market, and these bodies do not have MEPS or energy labelling certification schemes. If various State legislation does call up other such (primarily appliance safety) certification bodies, and these schemes do not have MEPS and energy labelling provisions, then there will not be a uniform national requirement for MEPS and energy labelling for gas appliances.

The current AGA MEPS and EL scheme for gas appliances is really a defacto situation whereby energy efficiency and energy labelling have been included in the national gas appliance safety certification scheme run by the AGA: the AGA MEPS Energy and Labelling scheme is included within the AGA scheme, and the MEPS and Energy Labelling are included in the various Standards and Codes used by AGA when certifying gas products. These Standards are national Standards. It should be noted that the safety and reliability certification offered by the AGA is based on the requirement of State legislation, whereas the MEPS and the Energy Labelling is not a requirement of State legislation (except in the case of Victoria which has an existing provision for overseeing energy efficiency -- The Victorian Gas Safety Act (S79E & 79F) provides for gas equipment to be proclaimed, and for that gas equipment not to be supplied or offered unless registered and labelled in accordance with regulations relating to energy efficiency. To date no gas equipment has been proclaimed).

There are also trade agreements that Australia shares with overseas countries that would affect any mandated legislated Australian requirement for MEPS and energy labelling. For example, the Trans Tasman Mutual Recognition Agreement between Australia and New Zealand means that any good that can be legally sold in New Zealand can be legally sold in Australia (and vice versa). The existing law governing the sale of gas appliances in New Zealand does not include a requirement for MEPS or energy labelling.

Overview to Draft Report

There is a substantial discussion on policy issues regarding energy efficiency in the Overview. On page XXXVIII there is a list of policy positions reached by the Commission regarding energy efficiency.

However the report does not address critical policy issues such as fuel based energy efficiency, though the report does discuss this issue in Chapter 3, for example in the key points introduction the report states:

- "While some primary fuels can be used directly by end users, many need to be converted to a form which is more convenient for the end user, like electricity or petroleum. Conversion processes consume significant amounts of energy.
- The electricity generation sector is the largest consumer of primary energy in Australia. Around

> 70 per cent of the primary energy consumed to supply electricity to end users is lost in conversion, transmission and distribution. This represents 30 per cent of total primary energy used."

Despite this discussion in the report, there is no explicit follow on discussion to how these facts directly relate to energy efficiency, particularly at end use, and how such facts influence energy efficiency externalities such as Greenhouse gas emissions, which the Commissions notes that State and Federal governments are seeking to address through many policy instruments such as energy efficiency programs. (It is noted that the Commission has explicitly addressed the issue of developing a methodology that can incorporate the unpriced environmental impacts from greenhouse gas emissions from electricity generation: "Greenhouse Gas Emissions and the Productivity Growth of Electricity Generators", G Murtough et al, Productivity Commission Staff Research Paper, 2001).

Consideration of fuel based energy efficiency has direct implications for future required investment for new electricity generation capacity to meet increasing demand for electricity, as well as environmental policy issues.

The following section is extracted from the AGA's original submission to the Commission in October 2004:

> **Fuel Based Energy Efficiency**
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> The AGA believes that any serious investigation of energy efficiency must take into account the role of the fuel used to produce the form of energy utilised at the end point. For example, it is undeniable that the ***direct use of gas*** for residential, commercial and industrial area heating and water heating is far more efficient than using electricity (a high grade energy source) produced by burning coal or even electricity produced from gas fuelled power generation (which is more efficient than burning coal to produce power). Not only is the direct use of gas (a low grade fuel) far more efficient than the fuel to power conversion cycle, but the heat losses involved in transmitting that power through transmission and distribution networks from distant power stations also add considerably to the loss of conversion efficiency. However the market for energy or energy efficiency does not take this well known fact (direct use of gas for heating) into account.
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> The direct use of gas is also the most cost effective energy efficient means to lower Greenhouse gas emissions (within the TOR of this inquiry), since power generation from coal includes very significant negative externalities associated with the Greenhouse gas emissions (CO2) and other forms of air pollution.

The increased direct use of gas for heating can also lower peak power demand for power, and hence avoid further investment in electricity infrastructure. It is worth noting that off-peak power supplied for water heating is not always consumed in off-peak periods, since many electric water heaters top-up during the day, and in many cases, the timers used to set the off-peak hours are incorrectly set, mainly as a result of incorrect calibration or outages which upset the timers. Outages of gas supply are rare compared to electricity outages, a fact which is not internalised in the cost and reliability of gas supply.

A possible means of internalising the advantages of the direct use of gas for heating is to include such a factor in the *price* or *energy labelling* of electrical equipment or appliances which are used for water and area heating.

Energy Efficiency and Pricing of Energy

AGA believes that the price of fuel should be considered in calculating life cycle costs for the use of energy: for eg the direct use of gas for heating versus the use of coal for generating power to use for heating.

The cost of electricity generated from coal used for high grade energy use (eg powering machines and equipment, IT equipment etc) versus use of that electricity as a form of low grade heat for water heating does not include the negative externalities of the Greenhouse gas emissions and air pollution from burning coal to make electricity. Since it is not possible to differentiate the consumer's uses of electricity, this negative externality could be dealt with by pricing the equipment or appliances which use gas to heat water and air at a lower price to cover the negative externalities. One option would be for governments who currently subsidise renewable energy water heaters to offer an equivalent subsidy for gas area and water heaters. Another option would be to impose a levy on electricity generators (funded similarly to the levy that is used to fund NEMMCO) and to use that levy to subsidise gas heaters.

Energy Labelling and Greenhouse Labelling

AGA believes that it may be worthwhile to make provision for a direct comparison between the Energy Labels for gas and electrical appliances, whereby a whole of cycle Greenhouse equivalent at end use can be made in terms of CO_2 equivalents as well as energy consumed at the end point. This would help counteract the information asymmetry that exists at this time for consumers when choosing a gas or electrical water or space heater. The strong advantages of the direct use of gas for heating would then be apparent to consumers.