Australian Gas Association
ABN 98 004 206 044

2 Park Way
Braeside
Victoria 3195
PO Box 122
Tel: 03 9580 4500
Fax: 03 9580 5500
Email: Melbourne@gas.asn.au
Web Site: www.gas.asn.au

Mr Paul Belin
Assistant Commissioner
The Energy Efficiency Inquiry
Productivity Commission
LB 2 Collins Street East
Melbourne
Victoria 8003

Dear Mr Belin

I attach the Australian Gas Association's submission to the Energy Efficiency Inquiry. I would be happy to answer any queries that you may have about our submission.

Dr C W Fong
Chairman
AGA
5 October 2004

ATTACHMENT

Australian Gas Association
Submission to
Productivity Commission: Inquiry into Energy Efficiency, September 2004

Fuel Based Energy Efficiency

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.

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 (CO_2) 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* (see section below on Energy Efficiency and Pricing of Energy) or *energy labelling* (see section below on Energy Labelling and Greenhouse Labelling) of electrical equipment or appliances which are used for water and area heating.

National Framework for Energy Efficiency (NFEE)

AGA agrees that a NFEE can be one of the most cost-effective ways to improve energy efficiency, enhance our international competitiveness and reduce Greenhouse gas emissions.

AGA believes that national consistency is required in any energy efficiency framework for it to be workable for industry and at least cost to the community.

AGA notes that the White paper indicates that the residential sector has a potential energy efficiency improvement of 13%, and that much of this gain would come from household appliances.

The administration and regulation (if required) of NFEE should be at least cost to the community: ie using what administrative frameworks already exist (for eg. gas appliance MEPS and EL using existing State based Regulators and modifying the

existing administrative arrangements), rather than adding costs by implementing new regulatory arrangements.

Minimum Energy Performance Standards (MEPS) and Energy Labelling (EL)

AGA believes that MEPS can address market failure for energy efficient technologies by gradually phasing out less efficient technologies with time; ie by gradually raising the MEPS threshold with time.

EL can address information asymmetries and failures by making it clear to consumers and industry which technologies are less energy efficient and less environmentally damaging.

There is a clear need for a nationally consistent approach. The objectives for a NFEE scheme covering gas appliances and equipment should be the establishment of a national energy efficiency scheme involving MEPS & EL. If the scheme is to be mandated through legislation (rather than voluntary and relying on the market to pick it up, as is the case with the present AGA MEPS and EL Scheme for Gas Appliances) then this would best be implemented through a nationally consistent legislative scheme, using commonly agreed national Standards or Codes and Methods of Test (MOTs). This is particularly important since there is no national legislation which could easily cover such a scheme, and its operation. The legislative requirement could most easily be enshrined in individual State legislation by agreement of State Energy Ministers through the Ministerial Council for Energy. A Sate based legislative arrangement currently exists for administering MEPS and EL for electrical appliances.

This would be similar to the approach used by ANZMEC (Australian and New Zealand Minerals and Energy Council, the precursor to the present Ministerial Council on Energy) Ministers to introduce nationally consistent point of sale safety regulation of gas appliances in August 1995, which meant that gas appliances had to be approved by various State Regulators acting under State legislation before sale was permitted. If MEPS and EL for gas appliances is to be mandated, then point of sale control would be the most efficient means for introducing such a system.

AGA members clearly support using this existing mechanism for approving gas appliances for safety, if a new mandated requirement for MEPS and energy labelling was to be introduced, rather than starting a new regulatory scheme and administrative scheme from scratch.

AGA is also strongly in favour of ensuring government officials tasked with implementing any MEPS and EL scheme for gas appliances must work with the industry, certification bodies and regulators in developing the finer details of the scheme. This includes changes to appropriate Standards, if a workable, technically sound and least cost scheme was to be developed. A clear and agreed stage managed implementation plan between industry and government is required.

If the MEPS and EL is to be mandated, then an Australian wide regulatory scheme, with processes and penalties must be in place prior to the implementation of MEPS and EL.

The AGA has an existing national MEPS and energy labelling scheme which ahas been in operation for many years. This voluntary scheme uses existing national Standards and MOTs for MEPS and EL. However, although this scheme has served the industry well, it is in need of updating and the Standards and MOTs need to be updated and modernised. If there is to be a legislatively mandated national MEPS and EL scheme for gas appliances, then it would be the least cost implementation would be to build on this existing scheme, rather than try to design a new scheme from scratch.

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 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 (10/04) no gas equipment has been proclaimed).

The least cost, quickest and least disruptive regulatory scheme to implement would be one similar to the Victorian Gas Safety Act: ie widen the existing States' safety legislation to include MEPS and EL, since the Standards that are used in these legislative schemes already call up the Standards which include MEPS and EL.

AGA believes it is desirable to work to update and modernise the existing MEPS and EL Standards, and retain the existing regulatory arrangements that serve the industry well now for ensuring compliance with safety and MEPS and EL. This would be far preferable to trying to develop a regulatory scheme from scratch, as well as giving continuity to the existing MEPS and EL scheme and avoiding consumer confusion.

There are also other independent third party certification bodies (besides the AGA) now competing with the AGA in the gas product certification market, and these bodies do not have MEPS or energy labelling certification schemes. By using commonly agreed Standards or Codes for MEPS and EL's, within a national legislative framework, then <u>any</u> appropriate authorised commercial certification body could certify gas products for MEPS and EL's, and each certification body could offer its own Energy Label in a competitive marketplace.

<u>Energy Labelling and Greenhouse Labelling</u>

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.

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.

Education of Consumers

AGA believes there is considerable market failure in the provision of sufficient information about the benefits of energy efficiency which require government agencies to fill this gap: for example the existing State and Commonwealth agencies who promote energy efficiency.