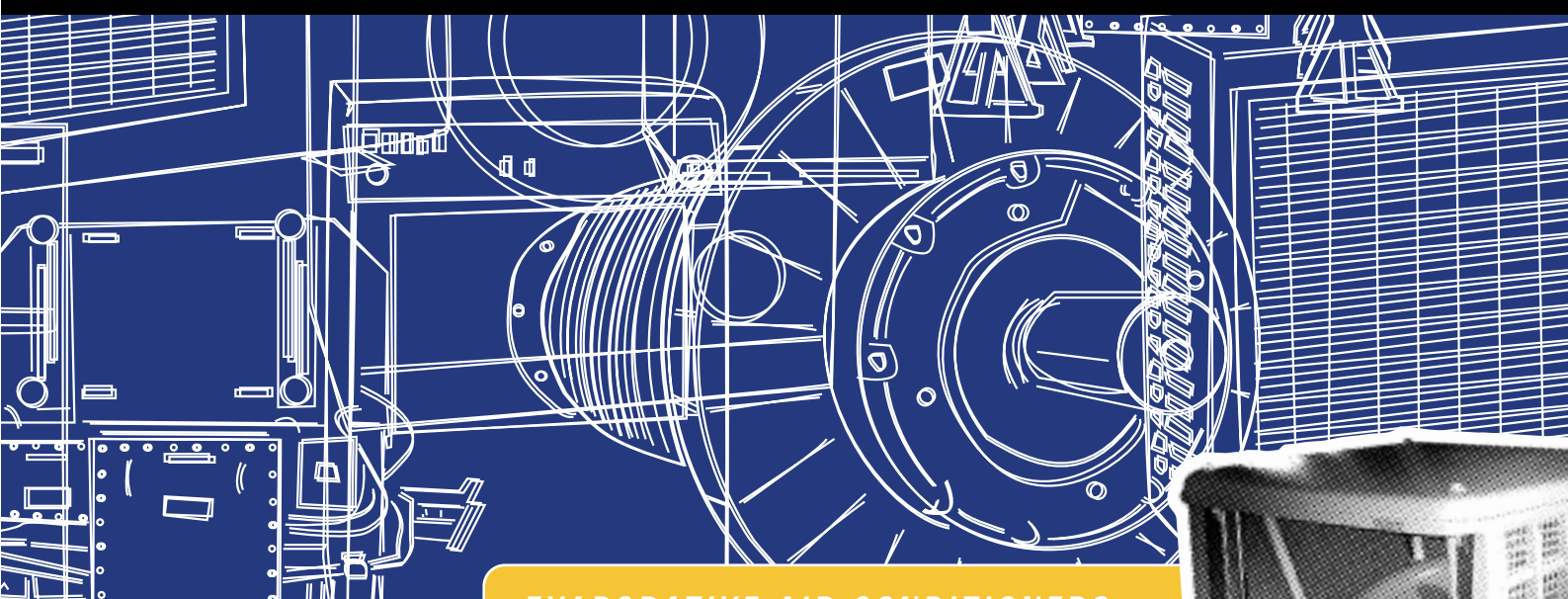
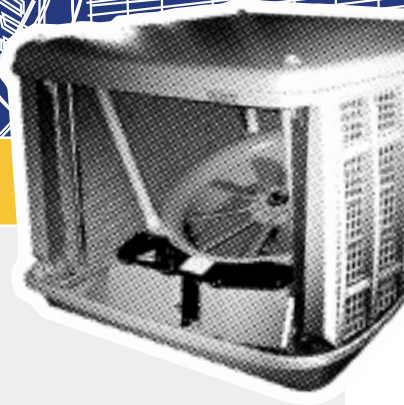


NATIONAL APPLIANCE AND EQUIPMENT ENERGY EFFICIENCY PROGRAM

Minimum Energy Performance Standards



EVAPORATIVE AIR CONDITIONERS



The March 2001 plan by the
National Appliance and Equipment
Energy Efficiency Committee to
improve product energy efficiency

AN AUSTRALIAN AND NEW ZEALAND MINERALS AND ENERGY COUNCIL
INITIATIVE FORMING PART OF THE NATIONAL GREENHOUSE STRATEGY

Minimum Energy Performance Standards: Evaporative Air Conditioners

OVERVIEW

The National Appliance and Equipment Energy Efficiency Committee (NAEEEC) is collecting information for consideration by the Australian and New Zealand Minerals and Energy Council (ANZMEC) about the appropriateness of minimum energy performance standards (MEPS) or a range of voluntary measures, for improving the efficiency of evaporative air conditioners.

MEPS are a government regulatory program stipulated in state and territory law that excludes from the market, products that do not meet the minimum energy performance levels. NAEEEC is a Commonwealth, State and Territory (and New Zealand) group of energy efficiency officials and regulators that implement the program. ANZMEC comprises the Minister of State from each Australian jurisdiction and New Zealand responsible for energy matters.

This summary report rejects nationally consistent mandatory standards for evaporative air conditioners on the basis that it would fail to meet the prerequisite cost benefit requirements for national law making. NAEEEC however seeks community and stakeholder comment on proposals to improve the energy efficiency of these products to ensure that the best-available products are promoted and sold in the Australian marketplace.

PUBLIC COMMENTS INVITED

NAEEEC seeks comment on the proposals contained in this plan from any interested person or organisation. Please address your comments in writing to:



AUSTRALIAN
Greenhouse
Office

Energy Efficiency Team
Australian Greenhouse Office
GPO Box 621
Canberra ACT 2601

Facsimile: (02) 6274 1884
Email: energy.efficiency@greenhouse.gov.au

Comments received by 1 July 2001 will help NAEEEC to advise ANZMEC of stakeholder views on the approach being proposed for evaporative air conditioners and also to shape any future voluntary program.

INTRODUCTION

Program goals

Energy consumed by equipment and appliances is a major source of greenhouse emissions. Codes and performance standards programs are amongst the most effective and widely used measures throughout the world to reduce greenhouse emissions attributable to this source. In 2000 for example, 25 of the 29 OECD countries had such programs and, within our region, New Zealand announced plans to institute a similar program in the near future.

The Australian Appliance and Equipment Energy Efficiency Program provides an important stimulus for the development of world-class energy efficient products. Benefits can flow through to the general community in the form of monetary savings from lower operating costs and increased employment levels resulting from Australian industry's ability to exploit potential export markets.

Under the 1998 National Greenhouse Strategy, responsibility for this program rests with ANZMEC. It is committed to improving this national program and has authorised NAEEEC to develop and publish plans for those products targeted for MEPS. These plans represent a transparent way for government agencies to explore community and stakeholder support (for both mandatory and voluntary measures) to reduce greenhouse gas emissions produced by these types of equipment.

1999 Expansion

In 1999, ANZMEC accepted proposals from NAEEEC to include in its program any items of industrial or commercial equipment identified as a significant contributor to the growth in energy demand or greenhouse gas emissions. Each product proposed for MEPS will be subject to both a feasibility assessment and public consultation before any final decision is made. These assessments will include technical and economic cost-benefit analyses as well as consideration of all supervisory measures available (voluntary, mandatory or a combination of both) to ensure that the most appropriate energy efficiency regime for that specific product is chosen.

The NAEEEC work program contains a list of all products scheduled for consideration and is available at the Australian Greenhouse Office website.

This evaporative air conditioner plan is the first stage of the process to consider regulatory and voluntary initiatives in general terms. It also demonstrates the extent to which Governments want all stakeholders to participate in the development of policies to meet the challenge of reducing the climatic affects of energy intensive products.



EVAPORATIVE AIR CONDITIONERS

Products considered include all commercial and residential evaporative air conditioners, also known as evaporative air coolers. In Australia, an extensive range of evaporative coolers is available, from small portable units for domestic use to large ducted systems for commercial use.

Evaporative coolers are more effective in climates where the temperature is high and the humidity is low. In Australia, this generally means the southern coastal areas plus most of the inland areas. In terms of capital cities, Perth, Adelaide, Melbourne, Canberra and Hobart would be suitable for evaporative coolers. Sydney's climate is marginal and Brisbane and Darwin are too humid for most of the cooling season.

A more detailed description of these products can be found in a report commissioned by NAEEEC held at www.greenhouse.gov.au/energyefficiency/

WHY WERE EVAPORATIVE AIR CONDITIONERS CONSIDERED FOR MEPS?

As packaged refrigerated air conditioners are already subject to either mandatory energy labeling or proposed minimum energy performance standards (MEPS), the main reason for contemplating MEPS for evaporative air conditioning technologies was to ensure that all air conditioning appliances have been considered within the program.



The total greenhouse emissions from evaporative air conditioners in Australia however is estimated to be only 190kt CO₂-e per annum with 55% of those emissions from the domestic sector. NAEEEC does not consider the development of MEPS for evaporative air conditioners to be cost-effective for the following reasons:

- ▶ Evaporative air conditioners result in modest greenhouse gas emissions equivalent to approximately 0.4% of energy sector emissions in 1988 (NGGI 2000).
- ▶ Industry sources believe that the market share of evaporative air conditioners will fall over forthcoming years.
- ▶ An examination of overseas standards has revealed that MEPS for evaporative coolers are not proscribed elsewhere in the world.
- ▶ Greater greenhouse gas savings could be obtained through the substitution of refrigerative units by evaporative coolers in appropriate climate zones, compared to increasing the average efficiency of evaporative units by regulation.

ELEMENTS OF A VOLUNTARY PROGRAM

NAEEEC wishes to work with the air conditioning industry to identify and promote evaporative air conditioners in locations and circumstances suitable for their use.

NAEEEC wishes to help inform consumers on the relative performance and running costs of equivalent evaporation and refrigeration units. Such information could be provided, for example, in the form of publications or through web site database tools maintained by government or industry.