



National Framework
for Energy Efficiency

National Framework for Energy Efficiency - Consultations on Stage Two

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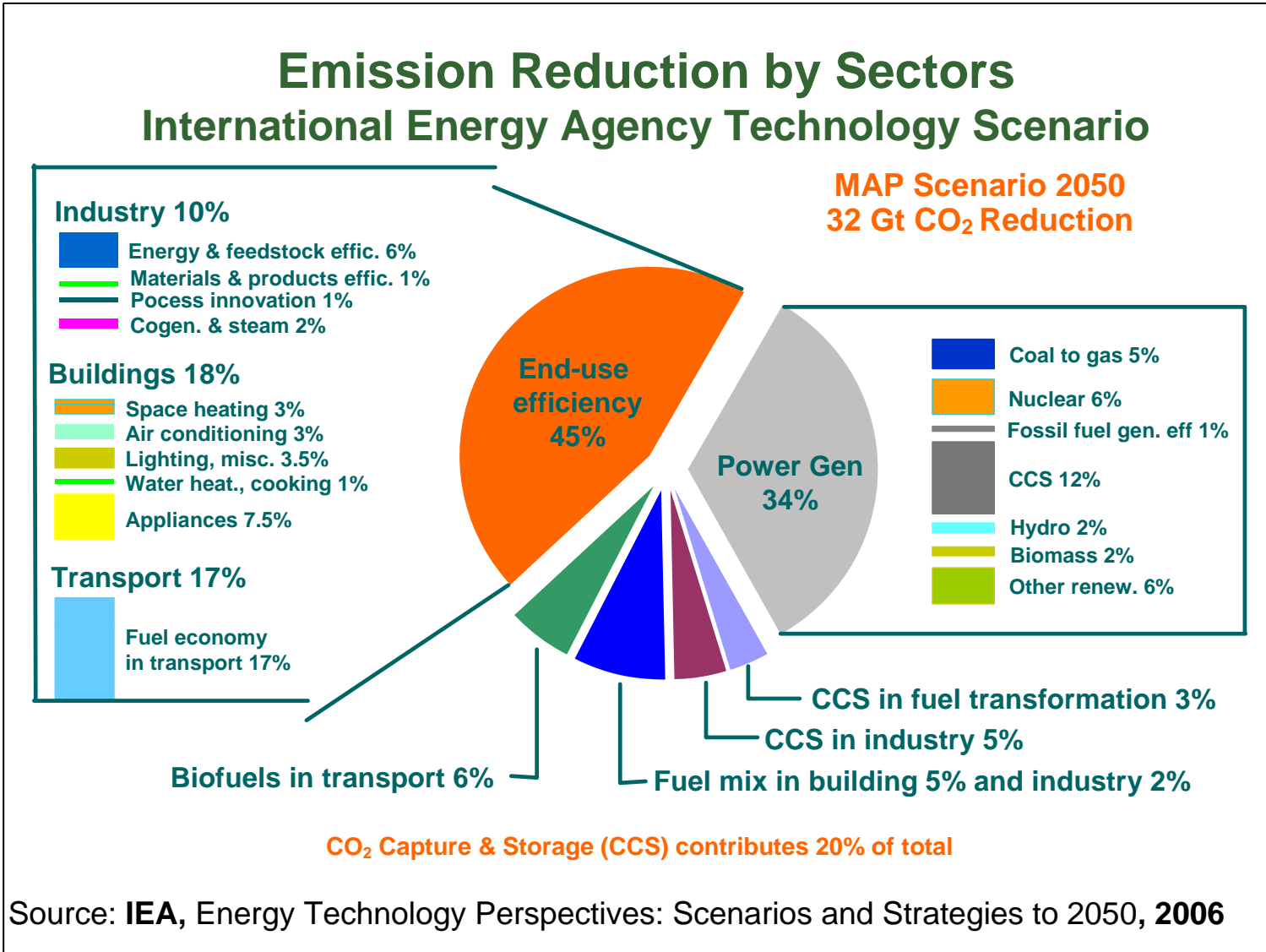
Chair

Energy Efficiency Working Group

Purpose of the day

- Public consultation on the further development of NFEE
- Seek feedback on:
 - The measures proposed for NFEE Stage Two; and
 - Options to improve the implementation of these measures to maximise their benefits
- Structure of the day:
 - Overview of NFEE, its context and the proposed Stage Two measures
 - Stakeholder presentations; and
 - Feedback on the proposed NFEE Stage Two measures as detailed in the consultation paper

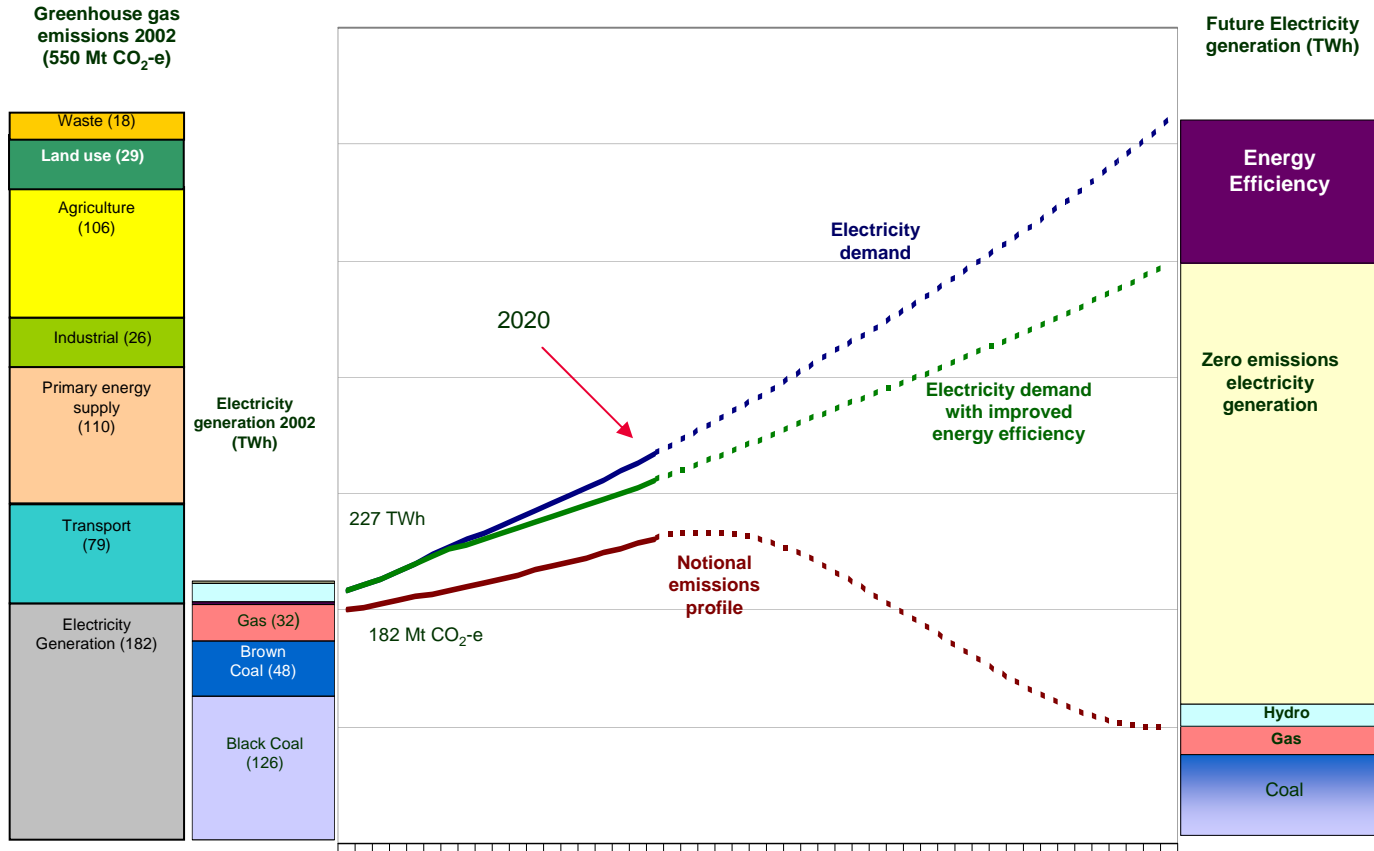
Potential of EE to reduce emissions



Source: IEA, Energy Technology Perspectives: Scenarios and Strategies to 2050, 2006

The Australian context

Illustrative example: Australia's potential future generation mix



Courtesy of: Department of Industry, Tourism and Resources

National Framework on Energy Efficiency

- The National Framework for Energy Efficiency (NFEET) aims to unlock the significant but un-tapped economic potential associated with the increased uptake of energy efficient technologies and processes across the Australian economy.
- It aims to achieve a major enhancement of Australia's energy efficiency performance, reducing energy demand and lowering greenhouse gas emissions.
- Established in August 2004 by the Ministerial Council on Energy (MCE)
- Targets demand-side energy efficiency opportunities in the stationary energy area
- NFEET Stage 1 runs from December 2004 to the end of June 2008.
- NFEET Stage 2 will commence on 1 July 2008.

NFEE Stage 1

- Comprises regulatory and facilitative measures including:
 - buildings energy efficiency standards and mandatory disclosure;
 - minimum appliance energy performance standards (MEPS) and labelling;
 - the Australian Government's Energy Efficiency Opportunities (EEO) scheme;
 - training and accreditation and
 - Consumer information provision.

Projected benefits of NFREE Stage 1 by 2015

Impact	Announced in December 2004 Communiqué	RIS analysis for measures implemented
GDP benefits (\$m/annum)	400	380
Greenhouse benefits (Mt/annum)	3.6	7.8
Energy savings (PJ/annum)	51	42

Policy context

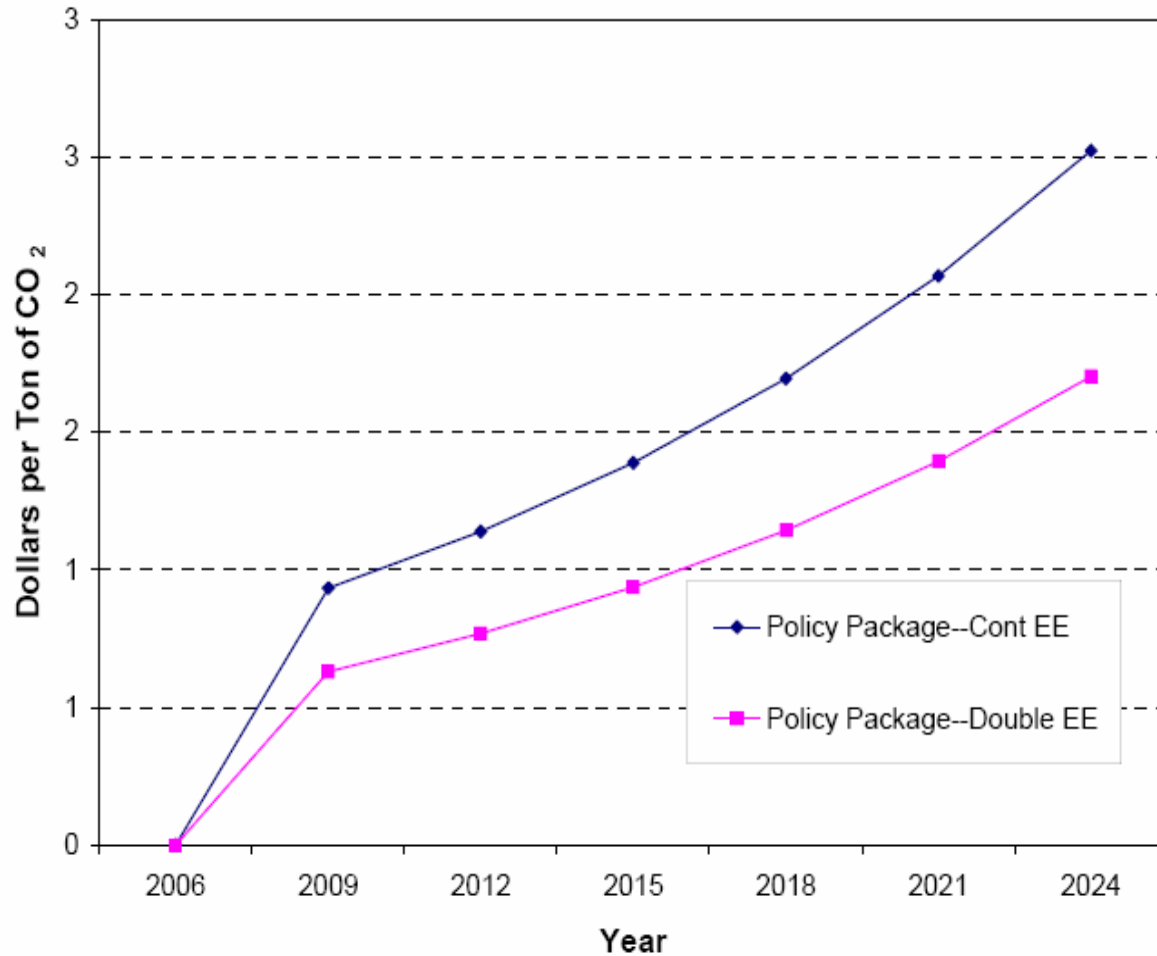
- All Australian governments committed to major emission reductions from the stationary energy sector
- Renewable and low emission energy targets
- Large investments to commercialise clean coal technology
- Introduction of emissions trading

EE measures are still needed under emissions trading

- Carbon price will not address all market failures
- Other schemes (e.g. EU) include complementary EE measures
- IEA recommends EE measures
- EE actions can decrease the net cost of emissions trading
- Role of EE recognised by both the Prime Minister's Task Group on Emissions Trading and the States and Territories' National Emission Trading Taskforce

EE lowers costs of emissions trading

Figure ES-3. Carbon Allowance Prices



From Prindle W. Shipley A. Elliott R., *Energy Efficiency's Role in a Carbon Cap-and-Trade System: Modelling Results from the Regional Greenhouse Gas Initiative*, American Council for an Energy-Efficient Economy, Report Number E064.

NFEE Stage 2 policy considerations

- MCE directed that Stage 2 measures must:
 - Deliver net public benefit;
 - Deliver least cost greenhouse gas abatement that does not exceed the cost of alternate measures being undertaken across the economy; and
 - Ensure ongoing national co-ordination of energy efficiency action.
- E2WG selected measures that:
 - Require nationally consistent delivery; and
 - Have capacity to deliver large energy and greenhouse gas savings.
- NFEE Stage 2 to consist of new measures and continuing Stage 1 measures

NFEE Stage 2 development process

- Identified major energy using end-uses in the industrial, commercial and residential sectors
- Sought those with capacity to deliver large energy and greenhouse gas emission savings
- Measures that can benefit from national coordination
- Result is five new measures, plus two requiring additional work, plus support activities
- Also continue some Stage 1 measures

NFEE Stage 2 – Continuing Measures from Stage 1

- Equipment Energy Efficiency (E3) program, including MEPS and energy labelling (for electricity and gas appliances and equipment)
- Energy Efficiency Opportunities (EEO) program
- Energy Efficiency Exchange (EEX) website
- Consumer bill benchmarking
- Mandatory disclosure of building energy performance

Equipment standards - What is regulated?

Labelling

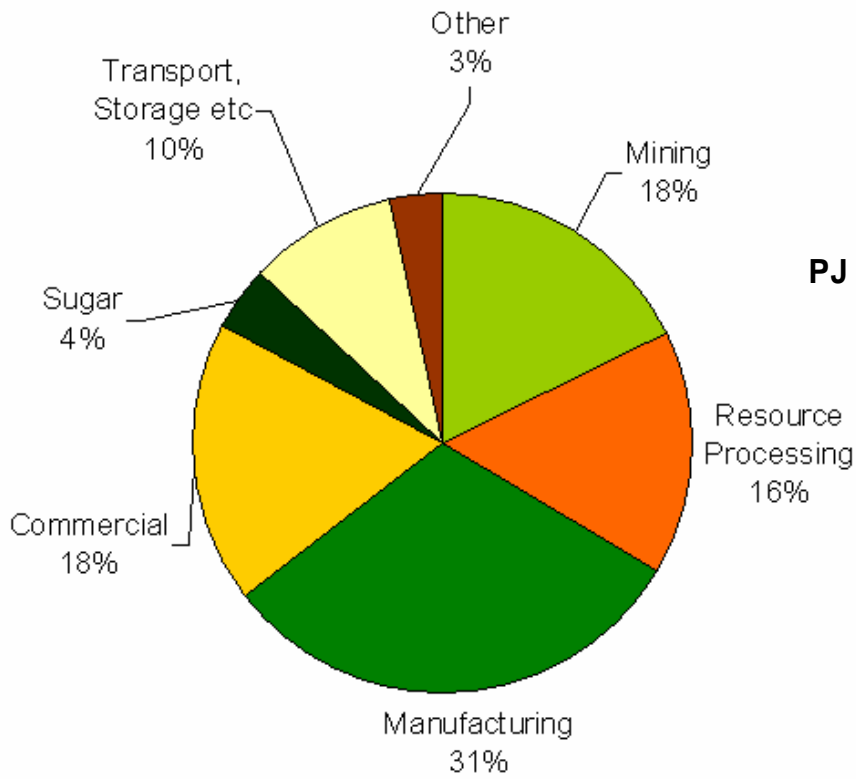
- Refrigerators & Freezers
- Clothes Washers
- Clothes Dryers
- Dishwashers
- Air Conditioners - Non ducted single Phase

MEPS

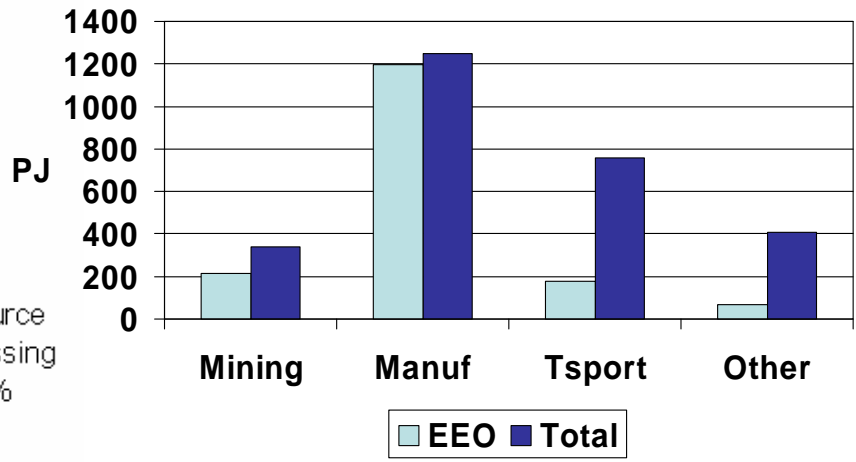
- Electric Water Heaters
- Refrigerators/Freezers
- Three-Phase Electric Motors
- Three Phase A/Cs
- Fluorescent Lamp Ballasts
- Commercial Refrigeration
- Linear Fluorescent Lamps
- Distribution Transformers
- Single Phase A/Cs

Energy Efficiency Opportunities

Number of EEO corporate groups by sector



Energy use in EEO by sector



- Energy Efficiency Exchange (EEX) website
 - Provision of best-practice energy efficiency information and expertise
 - Scheduled for release in late 2007
- Consumer bill benchmarking
 - Addition of benchmarking information to bills to encourage reduced energy consumption
 - Regulatory Impact Statement currently proceeding
- Mandatory disclosure of building energy performance
 - Completed an international review of measures and conducted scoping studies for residential and commercial disclosure and further work is proceeding

NFEE Stage 2 – Proposed New Measures

- Strengthened and expanded MEPS
- Incandescent lighting phase-out
- Government leadership through green leases
- Heating, Ventilation and Air Conditioning (HVAC) high efficiency systems strategy
- National water heater strategy

Further work:

- Rating tools for commercial buildings in new sectors
- Additional residential measures

Strengthened and expanded MEPS

- Builds on successful work to date,
- Expands the range of products covered by the MEPS
- Strengthens standards for existing products
- Covers electric and gas appliances

Incandescent lighting phase-out

- Objective is to phase out inefficient lighting in the residential sector
- Combines a MEPS program and a series of complementary activities
- Complementary activities to include:
 - Information provision
 - Educational activities
 - Demonstration projects
 - Product development
 - Research

Government leadership in building efficiency through green leases

- Aim is to increase the operational performance of buildings within the commercial office market
- Require that new and refurbished Government owned / leased commercial office buildings above 2000 sq.m. will be covered by green lease schedules, including a range of standard principles
- Capacity building activities to facilitate the integration of an agreed national energy rating policy and green lease schedule

HVAC high efficiency systems strategy

- Ten year strategy to improve the energy performance of HVAC systems
- Covers:
 - non-technical barriers to HVAC energy efficiency
 - identifying and promoting efficient technical solutions and system optimisation processes
- Complements chiller MEPS
- Four broad strategic initiatives, to capture:
 - Practices
 - Systems
 - People
 - Standards development



National water heater strategy

- Aims to:
 - reduce energy use and greenhouse gas emissions from (or due to) domestic hot water systems
 - transform the conventional electric water heater market towards low emission alternatives
- Components of strategy:
 - improve the energy efficiency of water heaters;
 - develop a national greenhouse rating methodology for water heaters;
 - establish a national greenhouse gas performance requirement for water heaters installed into new homes and major renovations; and
 - facilitate state/territory greenhouse gas performance requirements for replacement water heaters.



Further work on building measures

- Discussions will also be held on two building energy efficiency measures over coming months:
 - Development of tools for measuring commercial building energy performance in new sectors (not just offices)
 - Additional residential measures focusing on minimum performance standards

Next steps for NFEE2 development

- E2WG to assess results of today's consultation and any submissions
- E2WG reports (through SCO) to MCE at next meeting (December 2007)
- Once MCE approves final package, E2WG develops implementation plans
- NFEE Stage Two commences July 2008

Thank you.

