



Acting on energy efficiency

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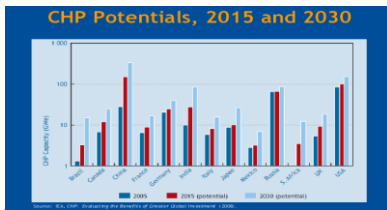
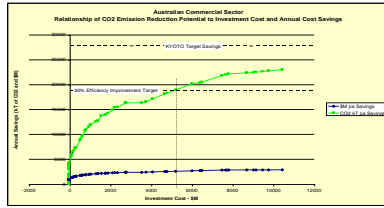
“Energy efficiency is by far the most cost-effective way to fulfill 3 major energy-related challenges: increase energy security, reduce energy costs and attain a cleaner environment.”

International Energy Agency (IEA)

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The case for energy efficiency?



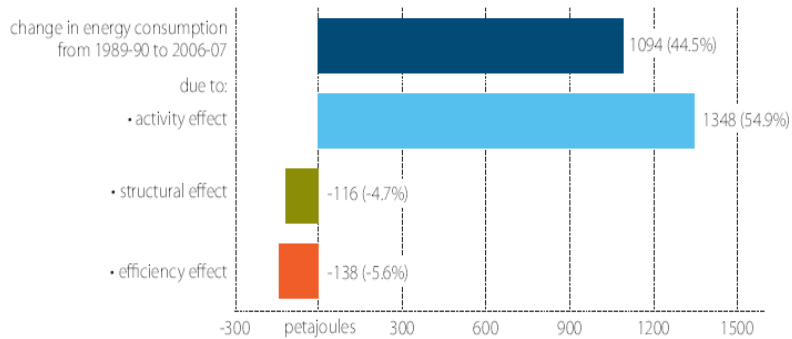
PRIME MINISTER'S
TASK GROUP ON
ENERGY EFFICIENCY

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Energy efficiency performance



1 Changes in final energy consumption in the Australian economy



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Business

- EEO – 6% energy savings identified across >60% of energy
- State schemes – EREP, ESAP, QSEP
- Green Building Fund, NSW Climate Change Fund
- NABERS, mandatory disclosure, BCA
- **Some measures in place but low or slow impact relative to growth**

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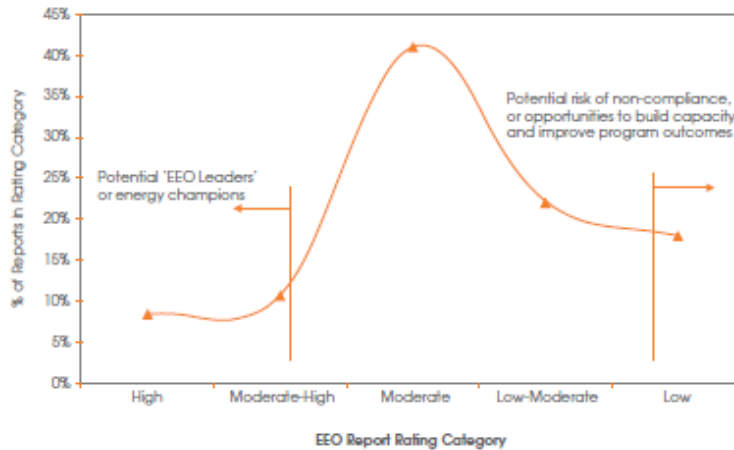


Leading companies

- Sydney Water – Green Globe award recipient; significant embedded renewable generation project, EE & DM
- Woolworths – target of 2006 CO₂ for 40% increase in size; new stores to emit 25% less GHG, improved EE, use of cogen, renewables. Total investment in the hundreds of millions
- High levels of transparency about targets, performance and action by numerous companies, such as Stockland, News Limited, Telstra
- **Some leading companies, but EEO and other reports suggest the majority are still in basic compliance mode.**

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Energy networks, generators and retailers

- Exemptions from EEO (to be changed?), GES has ended
- Demand management remains a low focus
- Smart Grids – energy efficiency now, or 10+ years?
- Low embedded generation % v other OECD countries
- 3 x retailer obligation schemes, limited coverage, small targets

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Governments

- Green leases
- Energy Performance Contracting
- Limited accessible public reporting
- ICLEI, local govt – how many achieved Council, Community targets?
- **Overall progress patchy and not leading by example across the board**

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Investment

- RECs – 45,000 GWh = \$1.8 bn in 2020 @ \$40/MWh
- Network infrastructure spending \$40bn+ over 5 years
- \$4.5 bn Clean Energy initiative – CCS, renewables
- \$?? bn in new generation – intermediate, peaking; new base load power
- EE funding measured in \$ millions per year; Australian Carbon Trust \$175m, GBF

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Summary

- There are lots of great initiatives, and more importantly a number of leaders in business to show what is possible
- But the scale of and investment in EE action is small
- Speed of development and delivery of EE action is slow

- Relative to the scale and rate of growth in energy demand, and to the scale of investment in supply side measures

- If we are serious about energy efficiency as a key carbon reduction strategy, the last 10-15 years outcomes show that the status quo is not enough to see this potential reached

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What else should we be doing?



- Energy efficiency should be a focus with or without a CPRS / ETS
- Task Group: link STEP CHANGE and investment and support needed to achieve this

- Other 'step changes'
 - California utility levy = stable per-capita kWh
 - Mandatory RET measure supports renewable energy
 - Denmark & other countries targeted approach to cogeneration

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What else should we be doing?



Set objectives or a target

- EE delivers ~0.5% pa, energy growth is ~2% pa.
- Should we
 - level off growth,
 - reduce absolute consumption, or
 - be “around the top performers in the OECD”?
- Understanding the objective to 2020 will inform and underpin the policy measures, and the investment

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What else should we be doing?



Business and government leadership

- Engagement at Director, CEO, CFO levels – eg via AICD
- Encourage business leaders in EE to engage other leaders
- Commit to or regulate best practice for all major new developments
- All Commonwealth, state, Local govts implement EPC or similar
- Should \$100m Carbon Trust addition have been \$1bn+
- Nationally consistent business EE programs, improved reporting

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What else should we be doing?



Electricity networks

- Expansion is adding significantly to costs, and response is inelastic
- Smart grids and smart metering are not enabling widespread demand response and EE now
- Direct a % of current proposed \$40bn+ capital investment into a new demand management and energy reduction fund
- Preference EE over network expansion

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What else should we be doing?



Cogeneration – remove barriers, stimulate investment

- We are nearly 30 years behind parts of EU (1983 Energy Act UK)
- Lower cost of abatement than most renewables
- Overseas experience clearly shows that a target, favourable policy environment and focused effort can deliver significant gains.
- A target of 16% total cogeneration be set for 2020, appended to the MRET scheme as a '10% new cogen by 2020' target – this would get us to the same level as most OECD countries

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So in conclusion



- The case has been made for EE over and over again
- But the response is too little, too slow
- Step change won't occur with current measures and low investment
- A step change in our view on, investment in, and incentives for EE (and embedded generation) is needed if the stated objective of a step change in energy efficiency is going to be possible

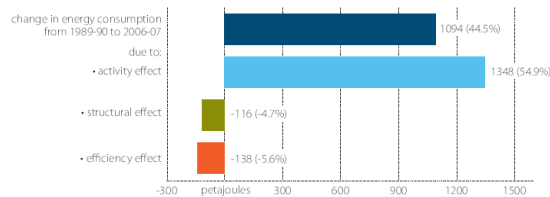
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..and we go from achieving..



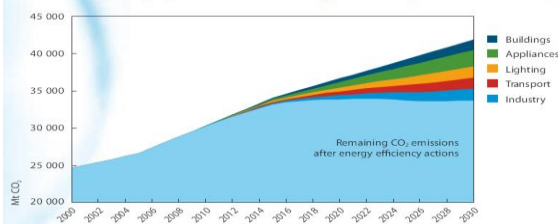
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CO₂ savings potential from energy efficiency recommendations



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