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Addressing Barriers to Industrial Energy Efficiency: an evaluation of the Energy Efficiency Opportunities program

Ms Louise Vickery, Program Manager
Address to IEPEC, Paris
June 2010



National Framework
for Energy Efficiency

Energy Efficiency
Opportunities

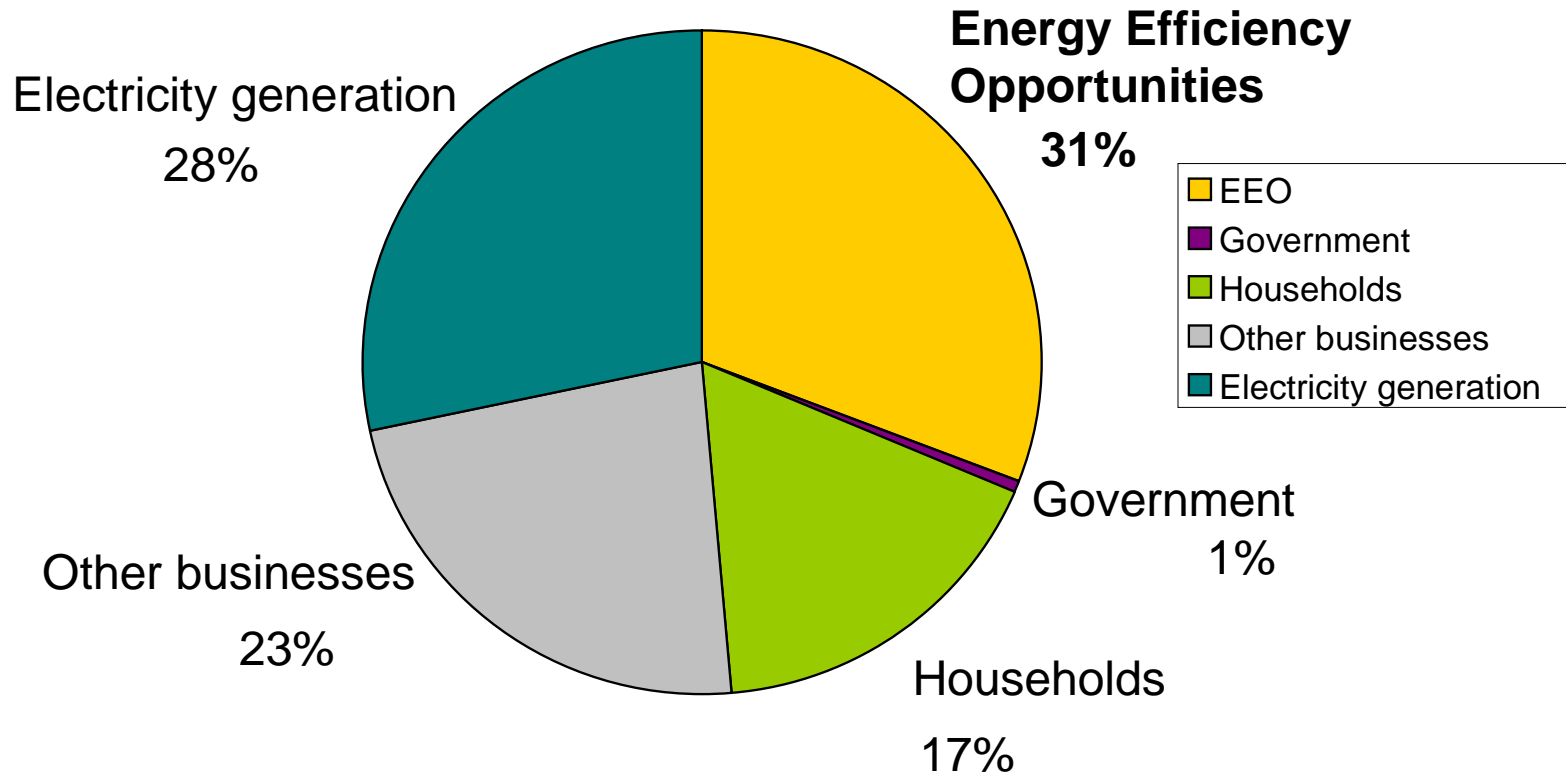
WHAT I WILL TALK ABOUT TODAY

- **Why we have EEO – the importance of large energy users** and industrial energy use in Australia
- **Program design** and delivery – addressing barriers to change
- **Evaluation stages**, focusing on Phase 2 Mid Cycle Review
- **Results** – organisational change & energy savings
- **Results** – energy, emissions and financial savings
- **Results** – barriers to identification & implementation



EEO PROGRAM ENERGY USE

Australian total energy use - 2007-08 (PJ)



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FEATURES OF THE PROGRAM

- Corporations using more than 0.5 PJ energy per year are required to participate under EEO legislation
- Must undertake an energy efficiency assessment using the EEO Assessment Framework to identify cost-effective opportunities to reduce energy use
- Results of the assessments must be signed off by the Board, and reported to government and publicly to the community
- Corporations must report their business response i.e., whether they will implement their opportunities
- Implementation is not mandated under legislation



ASSESSMENT FRAMEWORK

Seeks to remove barriers by:

- Delivering quality information
- Encouraging decision makers to consider projects

Comprises:

- Six Key Elements, with
- 19 Key Requirements

Rigorous and Comprehensive Assessments



Leadership

People

Information, Data & Analysis

Opportunity Identification & Evaluation

Decision Making

Communicating outcomes

Six key elements



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PROGRAM EVALUATION

Three phases of evaluation:

Each set at reporting milestones.

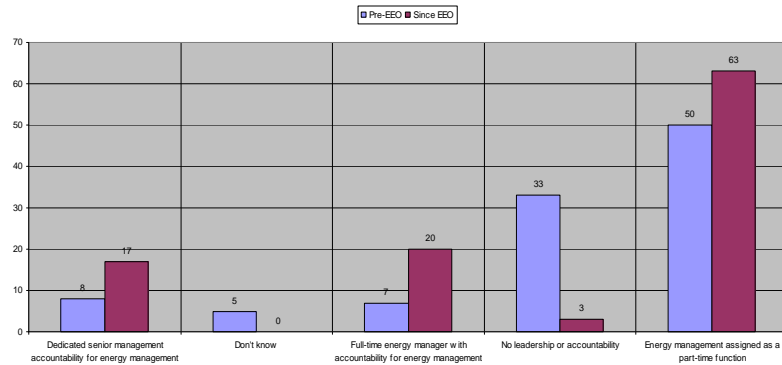
- **Phase 1.** Internal evaluation, May 2008
- **Phase 2. Mid Cycle Review, June 2010**
 - External review by consultants
 - Online survey, participant interviews, case study analysis
 - Results of assessments with energy use, energy savings and emissions reductions
- **Phase 3 – Full evaluation, 2011-2012**



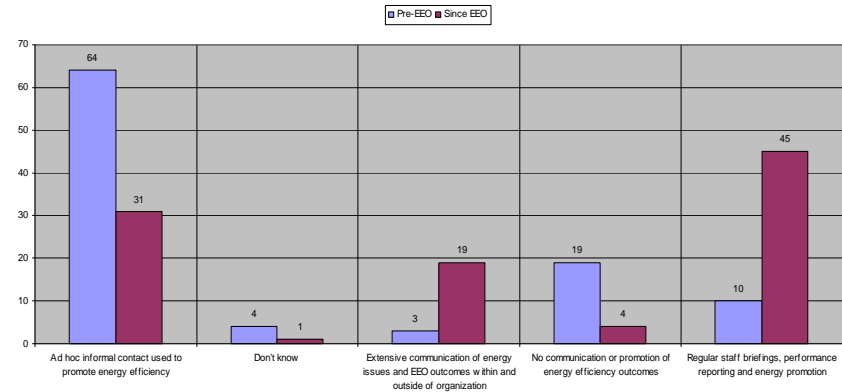
RESULTS – ORGANISATIONAL CHANGE

Mid Cycle Review – preliminary findings

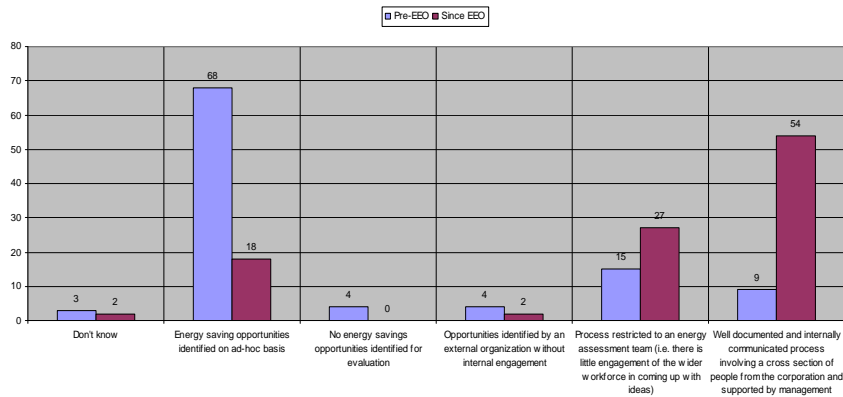
Leadership and Accountability



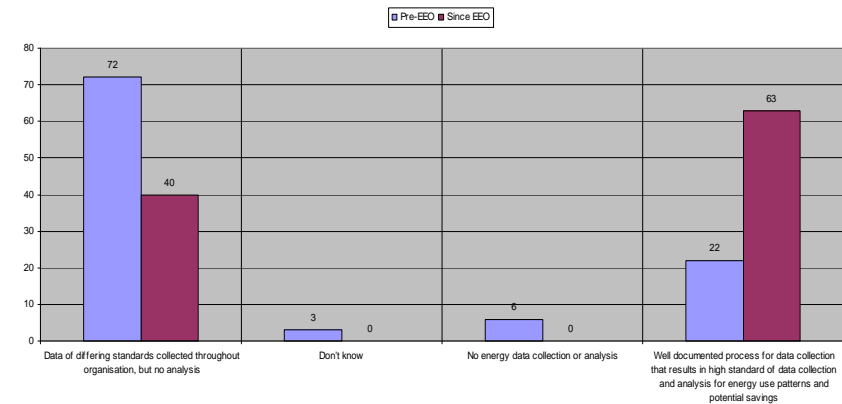
Communication



Opportunity Evaluation

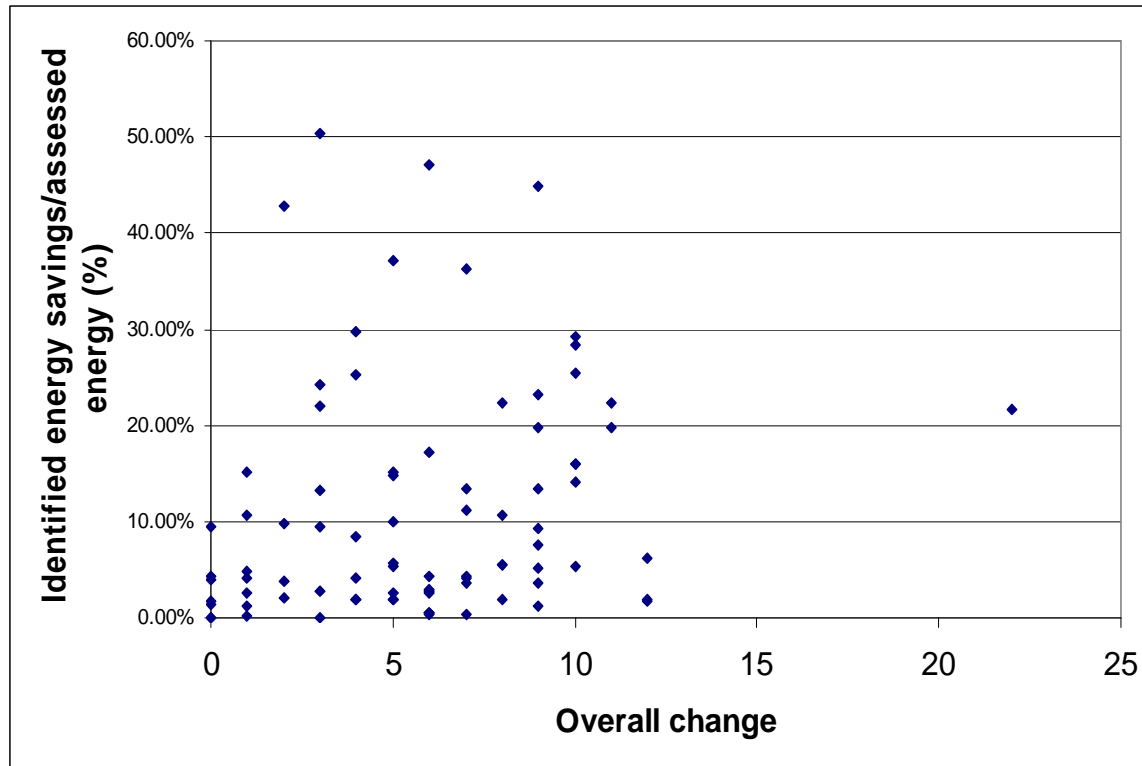


Analysis of Data



RESULTS – CHANGE & ENERGY SAVINGS

Mid Cycle Review – preliminary findings



All organisations

Energy savings against overall reported change for Key Requirements

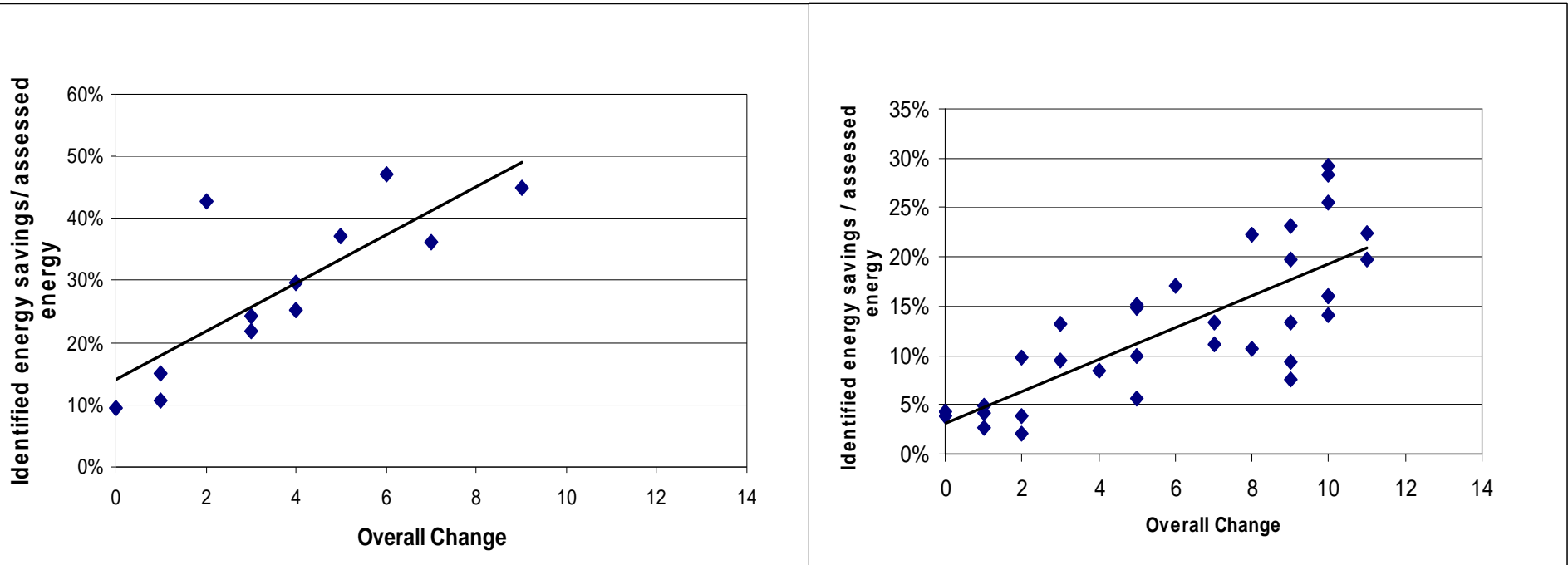


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RESULTS – CHANGE & ENERGY SAVINGS

Mid Cycle Review – preliminary findings



Group 1: large energy savings

Group 2: moderate energy savings

Energy savings against overall reported change for Key Requirements



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RESULTS- FIRST ASSESSMENTS

Opportunities identified by corporations	Savings as % of energy assessed	Energy savings per year (PJ)	Emissions reductions per year (MtCO ₂ -e)	Net financial savings per year (\$A)
To be adopted*	4.1%	41.6	3.9	\$A503m
Under investigation	2.4%	24.2	2.3	\$A218m
Not to be implemented	0.2%	1.8	0.2	\$A15m
Total opportunities	6.6% (6.8%)+	67.7 PJ (93PJ)+	6.4 MtCO₂-e	\$A736m

* includes business responses: implemented, implementation commenced and to be implemented.
 + includes data submitted by corporations for 2008-09.

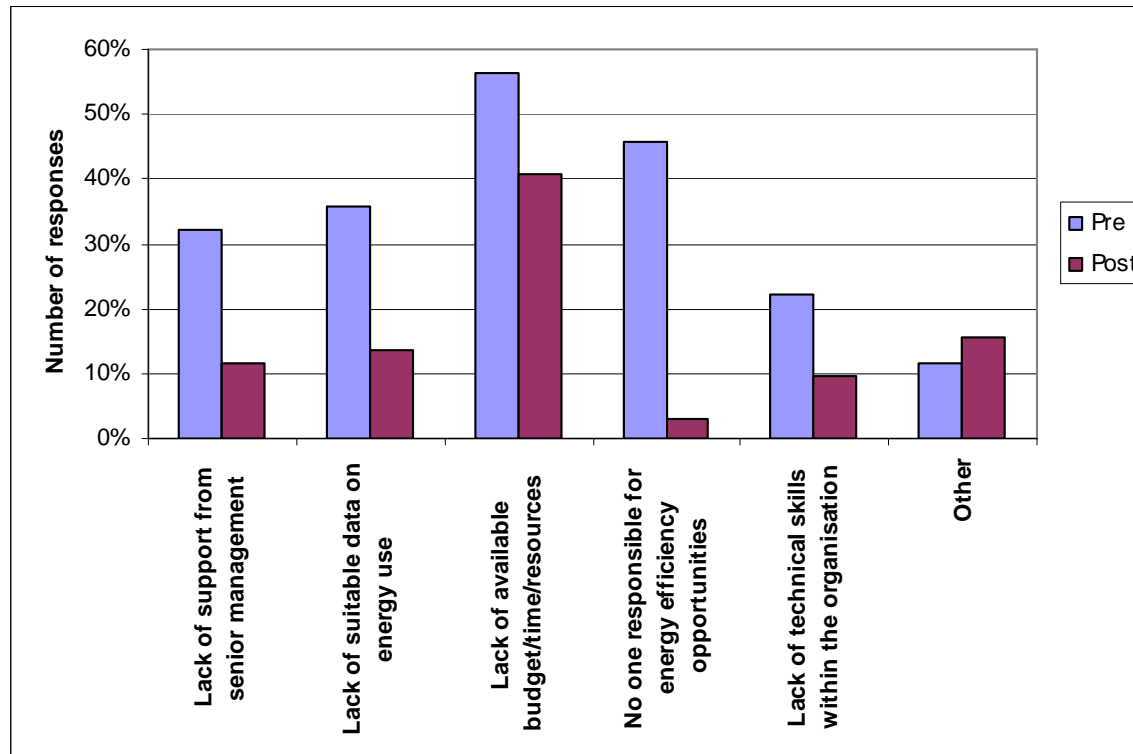


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RESULTS – BARRIERS TO *IDENTIFICATION*

Mid Cycle Review – preliminary findings



Barriers to *identification* of energy efficiency opportunities before and after EEO

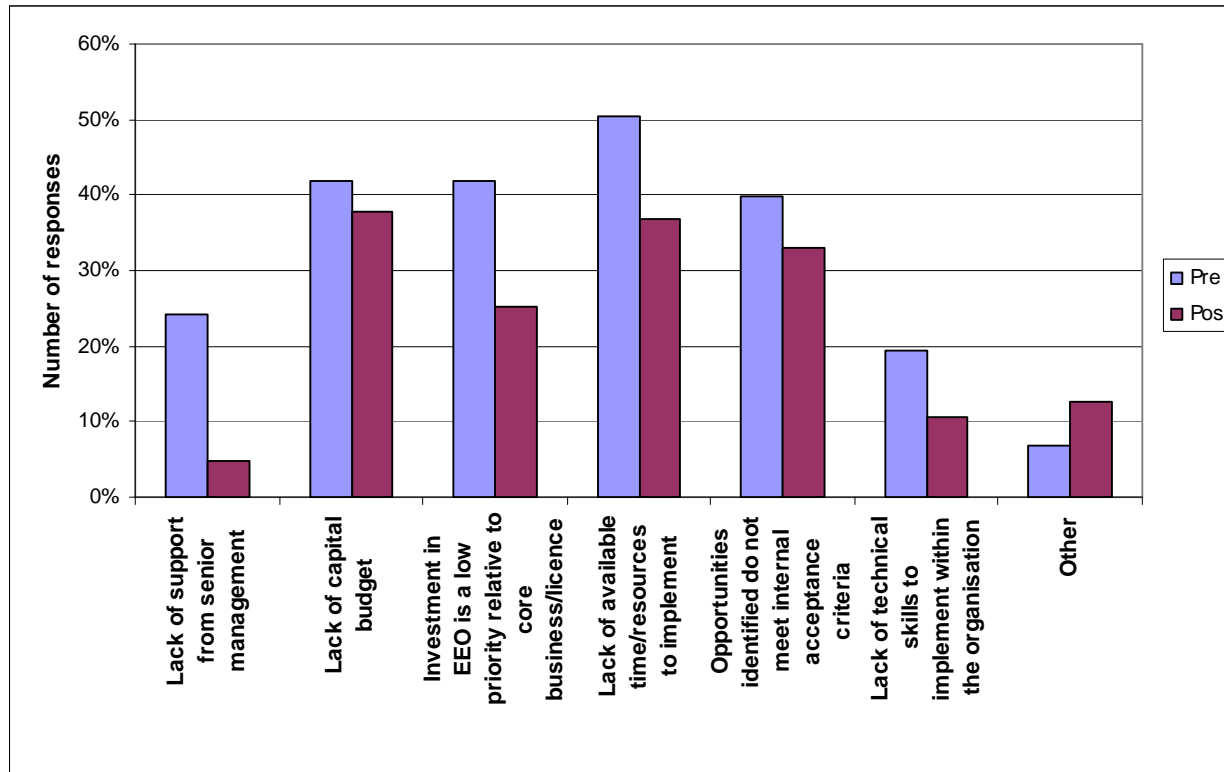


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RESULTS – BARRIERS TO IMPLEMENTATION

Mid Cycle Review – preliminary findings



Barriers to *implementation* of energy efficiency opportunities before and after EEO



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OTHER FACTORS

Mid Cycle Review – preliminary findings



Other factors impacting on implementation



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CONCLUSION

Large energy users can identify significant energy savings

193 corps found 93 PJ in energy savings in 2009. Represents:

- 6.8% of corporations' total assessed energy,
- 2.9% energy end use for Australia, and is equivalent to
- 1.5% of Australia's total greenhouse gas emissions.

Change is occurring

- A correlation in organisational change and energy savings
- Barriers to *identification* of opportunities being reduced
- Barriers to *implementation* reduced but not to same degree, and influenced by other factors
- Improvement in systems, processes & accountability

